CALIFORNIA ENERGY COMMISSION

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01-EP-7C

DATE MAR 24 2010

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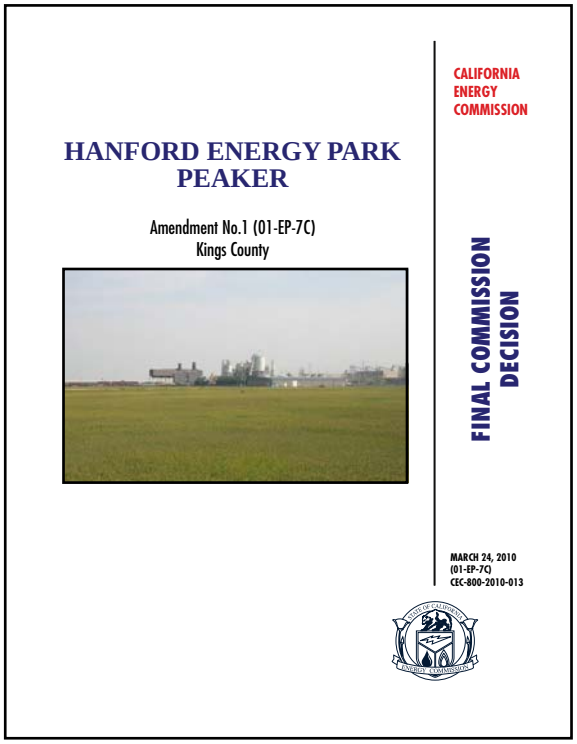
HANFORD ENERGY PARK PEAKER

Amendment No.1 (01-EP-7C)
Kings County

FINAL COMMISSION DECISION

MARCH 24, 2010
(01-EP-7C)
CEC-800-2010-013



CALIFORNIA ENERGY COMMISSION

1516 9th Street
Sacramento, CA 95814
www.energy.ca.gov/sitingcases/hanford_ammendment/

KAREN DOUGLAS
Chairman

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:		
Petition to Amend the Commission Decision Approving the Emergency Peaker Application for the Hanford Energy Park Peaker Project	)	**Docket No. 01-EP-07C**
GWF Energy, LLC	)	**Order No. 10-0324-2**
	)	**ORDER APPROVING** a Petition to Convert the Hanford Energy Park Peaker Project to the GWF Hanford Combined-Cycle Power Plant

GWF Energy, LLC, the owner/operator of the Hanford Energy Park Peaker Project (HEPP), has requested to modify the Commission Decision approving construction and operation of the HEPP to allow conversion of the facility to the GWF Hanford Combined-Cycle Power Plant. GWF requests authorization to add two once-through steam generators, a 25 MW steam turbine-generator, and an air-cooled condenser to convert the 95 MW peaker project to a 120 MW combined-cycle power plant. The modifications would allow the facility to generate an additional 25 MW of power with no additional fuel use, while providing flexibility to operate the facility in either simple-cycle or combined-cycle mode.

STAFF RECOMMENDATION

Energy Commission staff reviewed the petition and finds that it complies with the requirements of Title 20, section 1769(a) of the California Code of Regulations. Staff recommends approval of GWF Energy, LLC's petition to modify the HEPP Project and amend related Conditions of Certification.

ENERGY COMMISSION FINDINGS

Based on staff's analysis, the Energy Commission concludes that the proposed changes will not result in any significant impact to public health and safety, or the environment. The Energy Commission public review process has been certified as a CEQA-equivalent, and therefore satisfies CEQA requirements. The Energy Commission finds that:

- The petition meets all the filing criteria of section 1769(a) concerning post-certification project modifications.

- The modification will not change the findings in the Energy Commission's Final Decision pursuant to section 1755.
- The project will remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources Code section 25525;
- The change will be beneficial to the public because it will significantly increase the efficiency of the project, allowing an increase of 25 MW in generating capacity without an increase in fuel use or air emissions. The project will also have the flexibility to operate in simple-cycle mode, allowing rapid startup to quickly respond to system needs, as well as in the more efficient combined-cycle mode.
- The modification was requested based on a substantial change in circumstance since the original HEPP was approved. Demand for electric generation services, including ancillary services, has increased substantially since the original project was approved. Conversion to combined-cycle operations will allow GWF to better respond to the market demand for various generating services in coming years.

CONCLUSION AND ORDER

The Energy Commission hereby adopts the staff's recommendation and approves GWF Energy, LLC's Petition to Amend. The Commission's Final Decision is hereby amended to allow construction and operation of the GWF Hanford Combined-Cycle Power Plant. Commission staff will henceforth provide adequate monitoring of all conditions and measures set forth in the final decision required to mitigate potential impacts and to assure that the facility has been constructed and is operated in compliance with the conditions of certification as set forth in the Commission's Final Decision.

IT IS SO ORDERED.

Date: March 24, 2010

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

KAREN DOUGLAS
Chairman

INTRODUCTION

A. SUMMARY OF THE PROPOSED DECISION

This Decision contains the Commission's determinations regarding the Petition for Amendment of the April 6, 2001, Commission Decision (2001 Decision) approving the Emergency Peaker application for the Hanford Energy Park Peaker (HEPP) and includes the findings and conclusions required by law.[1] The amendment, filed on October 1, 2008, seeks to convert the HEPP into the Hanford Combined-Cycle Power Plant by adding Once-Through Steam Generators (OTSG), a 25 MW steam turbine and an air-cooled condenser to the project. We **approve** the amendment, for the reasons and subject to the Conditions of Certification set forth in the remainder of this Decision.

The Petition was filed by GWF Energy, LLC (Applicant or Project Owner), the original licensee. This Decision is based exclusively on the evidentiary record established for this proceeding.[2] We have independently evaluated this evidence, presented the Commission's reasons supporting its Decision, and provided references to portions of the record, which support the Commission's findings and conclusions. The Conditions of Certification, which follow each topic section, will ensure that the Hanford Combined-Cycle Power Plant is designed, constructed, and operated in the manner necessary to protect public health and safety, provide needed electrical generation, and preserve environmental quality.

GWF Energy originally proposed to build a 95 megawatt (MW) natural gas-fired, single-cycle electric generating facility located at the intersection of Idaho Avenue and Power Way in an industrial area of the City of Hanford in Kings County, California. That

[1] The requirements for an amendment of an Energy Commission Decision are set forth in the Commission's regulations, Title 20, California Code of Regulations, section 1769. They are summarized in subsection B, below.

[2] We also take administrative notice of the April 6, 2001, Commission Decision and the evidence admitted in that proceeding.

proposal was approved by the Energy Commission on April 26, 2001, and commercial operations of the HEPP started on September 21, 2001.

The changes to the original project proposed by the amendment are described in detail in the **PROJECT DESCRIPTION** section of this Decision.

During the original decision process and again in the amendment review process, Energy Commission staff (Staff) and the Applicant carried out extensive coordination with numerous local, state, and federal agencies. These included the San Joaquin Valley Air Pollution Control District (SJVAPCD or District), City of Hanford, and other regulatory agencies with an interest in this project. Through these efforts, the various parties and agencies have reached mutual agreement on almost all aspects of the proposed project and upon the necessary Conditions of Certification. As is discussed below, the evidence shows that the modified project will not create or contribute to any significant impacts to the environment nor to public health and safety, and that the project will comply with all related requirements.

The remaining sections of this Decision describe the changes to the originally approved project, the environmental effects of the amended project, and conformance of the amended project with applicable laws, ordinances, regulations and standards (LORS).

B. AMENDMENT PROCESS

The HEPP and its related facilities fall within Energy Commission licensing jurisdiction. (Pub. Resources Code, §§ 25500 et seq.). During its licensing proceedings, the Commission acts as lead state agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, §§ 25519(c), 21000 et seq.), and the Commission's siting process and associated documents are functionally equivalent to the preparation of the traditional Environmental Impact Report. (Pub. Resources Code, § 21080.5.) A license issued by the Commission is in lieu of other state and local permits.

The Commission's certification process provides a thorough and timely review and analysis of all aspects of this proposed project. During the process, we conduct a

comprehensive examination of a project's potential economic, public health and safety, reliability, engineering, and environmental ramifications.

Significantly, the Commission's process allows for and encourages public participation so that members of the public may become involved either informally, or on a more formal level as an Intervenor with the same legal rights and duties as the project developers. Public participation is encouraged at every stage of the process.

After a license is approved, it may be amended on the petition of the Applicant. (Title 20, California Code of Regulations, § 1769.) Depending on the complexity and expected level of public interest, an amendment may be analyzed by Staff and referred directly to the Energy Commission for decision, as was done for this proceeding. Alternatively, the amendment may be referred to a committee of two Commissioners who take evidence and submit a proposed decision to the Energy Commission. In either event, the Commission must make the following findings before approving an amendment:

- That the amended project will not have significant,[3] unmitigated, environmental effects or that specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the proceeding and that the benefits of the project outweigh the unavoidable significant environmental effects of the project;

- That the amended project will remain in compliance with all applicable laws, ordinances, regulations and standards or that the facility is required for the public convenience and necessity and that there are not more prudent and feasible means of achieving the public convenience and necessity;

- That the change in the project will be beneficial to the public, Applicant, or Intervenors; and

- That there has been a substantial change in circumstances since the original approval justifying the change or that the change is based on information which

[3] The Commission's regulations use the term "significant adverse environmental effect." See, e.g., 20 Cal. Code of Regs., §1755. "Adverse" is redundant, however, in that by definition in the CEQA Guidelines (14 Cal. Code of Regs., § 15382) an effect must be "adverse" in order to be "significant;" positive or beneficial effects can not be significant. Therefore, when we use the terms "significant effect" or "significant impact" in this Decision, the reader may assume that those effects and impacts are adverse.

was not known and could not have been known with the exercise of reasonable diligence prior to the original approval.[4]

C. PROCEDURAL HISTORY

On October 1, 2008, the Applicant filed the Amendment Petition No. 1 (Ex. 1), the subject of this amendment proceeding and Decision. The matter was taken up by the Energy Commission's Siting Committee, consisting of Commissioners Karen Douglas and Jeffrey D. Byron. Staff originally proposed a schedule in which Staff would file its Staff Assessment (SA) on April 1, 2009. However, delays in obtaining some of the information necessary to prepare the SA resulted in the publication of the SA on October 14, 2009.

Public and agency comments on the SA were accepted during a 30-day comment period ending on November 13, 2009. The only comments on the SA received during or since that time were from the applicant, GWF Energy. No comments were received from the general public, any agency, or other party.

Response to Comments

The applicant's comments on the SA were minor in nature, and required no new analysis or new conditions of compliance. Staff issued an errata of the SA on January 4, 2010, correcting several typographical errors in the original document.

Note Regarding Format of this Decision

The remainder of this Decision is organized by topic in the same order as the 2001 Decision. The discussions focus on whether the amended project would cause any significant environmental impacts, appropriate mitigation for any such impacts, and whether the amended project will continue to comply with all applicable LORS. Where there are no changes to the findings and conclusions in the 2001 Decision, we will not repeat its analysis beyond a brief explanation of our reasons for making that determination. For the convenience of the parties and public, we will, however, reprint

[4] Title 20, California Code of Regulations, subsections 1769(a)(3), 1755(d).

all of the conditions of certification for the project, whether or not they are changed from those adopted in 2001.

I. PROJECT DESCRIPTION

A. Location

The key feature of the proposed amendment is the conversion of the facility from simple-cycle operations to combined-cycle operations. The power plant's fenced area will remain unchanged at approximately 5 acres. See **Figure 2 - PROJECT DESCRIPTION** for an aerial view of the project site.

B. Power Plant

The amended project will continue to include two aero-derivative General Electric LM6000 combustion turbine-generator (CTGs) sets operating in simple-cycle mode equipped with dry, low oxides of nitrogen (NOx) combustors and steam injection capability. The modified project will include two Once-Through Steam Generators (OTSGs), a single 25 MW condensing steam turbine-generator (STG), an air-cooled condenser, and support equipment. OTSGs recover waste heat in the CTG exhaust to create steam for the CTG, but they differ from the more common Heat Recovery Steam Generators (HRSGs) in that OTSGs can be operated "dry," without water in the boiler region, to allow operations in either combined-cycle or simple-cycle mode. GWF also intends to demolish and remove the two existing oxidation catalyst and selective catalytic reduction (SCR) systems, including the existing catalyst housing and 85-foot stacks, and add a new oxidation catalyst system within each OTSG. The new system would control carbon monoxide (CO) emissions to outlet concentration of less than 3 parts per million volume dry (ppmvd) at 15 percent oxygen (O_2) and volatile organic compounds (VOC) emissions to outlet concentration of less than 2 ppmvd at 15 percent O_2 during simple-cycle and combined-cycle operation. The new SCR system within each OTSG would reuse the existing aqueous ammonia storage system to control oxides of nitrogen (NOx) emissions to less than 2 ppmvd at 15 percent O_2 during combined-cycle operation. See **Figure 1 - Project Description** for the facility and equipment configuration of the amended project.

C. Natural Gas Facilities and Transmission Line

No changes are proposed to the HEPP's existing natural gas pipeline route nor transmission line route. Because of the increased efficiency allowed by conversion to combined-cycle operations, the modified project will use the same amount of natural gas as that for the original HEPP while producing an additional 25 MW of power. Natural gas would continue to be delivered via an existing gas line from Southern California Gas Company's (SoCal Gas) Distribution Line 38-504D located along the Union Pacific Railroad easement to the east of the project. The use of the existing PG&E substation and transmission corridor remains unchanged.

D. Water Supply and Waste Water Treatment

To avoid the need for extensive new water use at the converted plant, GWF proposes to install a 74-foot tall, 240-foot long, 42-foot wide air-cooled condenser to convert steam exiting the steam turbine back into liquid to be pumped back into the OTSGs. The combined-cycle plant would also utilize a wet-surface air cooler (WSAC) for lube-oil cooling, which uses a spray of water onto the surface of the heat exchanger when air temperatures are above 88 degrees. GWF proposes to increase present water use at the plant by approximately 5 percent in order to supply makeup water for the OTSGs and WSAC. The project's water supply will continue to be an on-site water well shared by the adjoining Hanford LP cogeneration facility, also owned by GWF Energy.

Waste streams from the modified project include wastewater and oil wastes from the oil-water separators used to collect plant equipment drains, and wastewater from WSAC blow-downs, and from washwater drain holding tanks. Oil waste streams from the oil-water separator and turbine wash-water will be collected in separate holding tanks and periodically transported off site for recycle or disposal. Water waste streams from the oil-water separator and the WSAC blow-downs will be routed to the Hanford LP cooling tower prior to disposal to the sewer pursuant to an Industrial Waste Discharge Permit with the City of Hanford. This wastewater is discharged continuously under operational plant limits, including limits on electrical conductivity. The proposed modifications associated with GWF Hanford would not change the quality of wastewater discharged to

the City of Hanford sanitary sewer system. While the total volume discharged to the City's sanitary sewer system would increase, the discharge volume would be within current permit limits.

Sanitary wastewater from sinks, toilets, and other sanitary systems would also be collected and discharged to the City of Hanford's sanitary sewer system for treatment at the Hanford Wastewater Treatment Plant.

E. Site Layout

Numerous minor adjustments to the equipment and site layout are proposed in the amendment petition. Equipment additions or modifications from the approved project are:

- Addition of two new OTSGs, each receiving the exhaust from one of the existing combustion turbine generators (CTGs). The OTSGs will be vertical flow boilers with rectangular stacks that will be 91 feet, 6 inches tall by 13 feet wide by 8.9 feet long.

- Addition of a new 25 MW (net) condensing steam turbine generator (STG) with an associated lube oil cooler.

- Addition of a new 74-foot tall by 240-foot long by 42-foot wide air cooled condenser (ACC) for system heat rejection.

- On-site modifications to the water piping, fire protection, and the storm water drainage collection systems.

- Utilization of existing, previously permitted auxiliary boiler at the adjacent GWF cogeneration plant and addition of steam piping to the new facilities to provide steam turbine seals and air cooled condenser evacuation during OTSG start-up.

- Addition of a new water treatment skid for boiler makeup water.

- Modification of the wastewater treatment system to optimize water supply requirements and minimize off-site wastewater disposal.

- Increase in water consumption of approximately 8 acre-feet per year (AFY) for OTSG feedwater makeup and the lube oil cooler makeup, but no change to the water supply or service connection.

- Addition of a generator step-up transformer and circuit breaker into the existing on-site 115 kilovolt (kV) switchyard to transmit the STG power output to the PG&E grid.

F. Construction and Operation

The Applicant proposes beginning construction of the project in the first quarter of 2011 and to complete construction in approximately 15 months. Commercial operation is expected to begin by the spring of 2012. The construction work force is expected to peak at 154 workers. Once the new facilities are on line, the operational staff is expected to increase by about 14 employees. The capital cost of the project is expected to be approximately $90 million.

G. Facility Closure

The planned life of the HEPP facility is 30 years or longer. Whenever the facility is closed, either temporally or permanently, the closure procedures will follow the described plan provided in this Decision and any additional LORS in effect at that time.

H. Findings Specific to an Amendment

As we note in subsection B of the **Introduction**, above, in addition to the findings necessary to approve an initial power plant license, two additional findings are required in order to approve an amendment to a license. They are 1) that the change in the project will be beneficial to the public, Applicant, or intervenors and 2) that there has been a substantial change in circumstances since the original approval justifying the

change or that the change is based on information which was not known and could not have been known with the exercise of reasonable diligence prior to the original approval.

1. Benefits

Throughout this Decision, we describe various benefits that will accrue from the construction and operation of the HEPP as proposed in the amendment. They include additional generation capacity to serve the residents and businesses in the Central and Southern California areas, employment opportunities for construction workers and plant operators, and property tax revenues for the City of Hanford, Kings County, and various local districts and agencies. For the Applicant, this amendment presents an opportunity to increase the amount of electric power and energy it can sell under contract, without increasing fuel use or emissions from the project.

2. Changed Information or Circumstances

The Applicant, in the Amendment Petition, explains the change in information and circumstances as follows:

"These changes are needed to allow GWF to respond to market demand for additional efficient power generation beyond the term of GWF's existing DWR contract. GWF will expand electrical power generation by converting the existing HEPP power generation to a more efficient operating design. The additional power will support California's growing energy demands, especially during peak summer conditions, which will have a beneficial impact on the public pursuant to Title 20, CCR, Sections 1769 [a][1][G]. A major advantage of the proposed conversion is the enhancement in electric generation efficiency created by the conversion, an approximate 24 percent increase in fuel efficiency, and a substantial reduction in emissions per MW-hr generated."

FINDINGS AND CONCLUSIONS

Based upon the evidence, the Commission finds as follows:

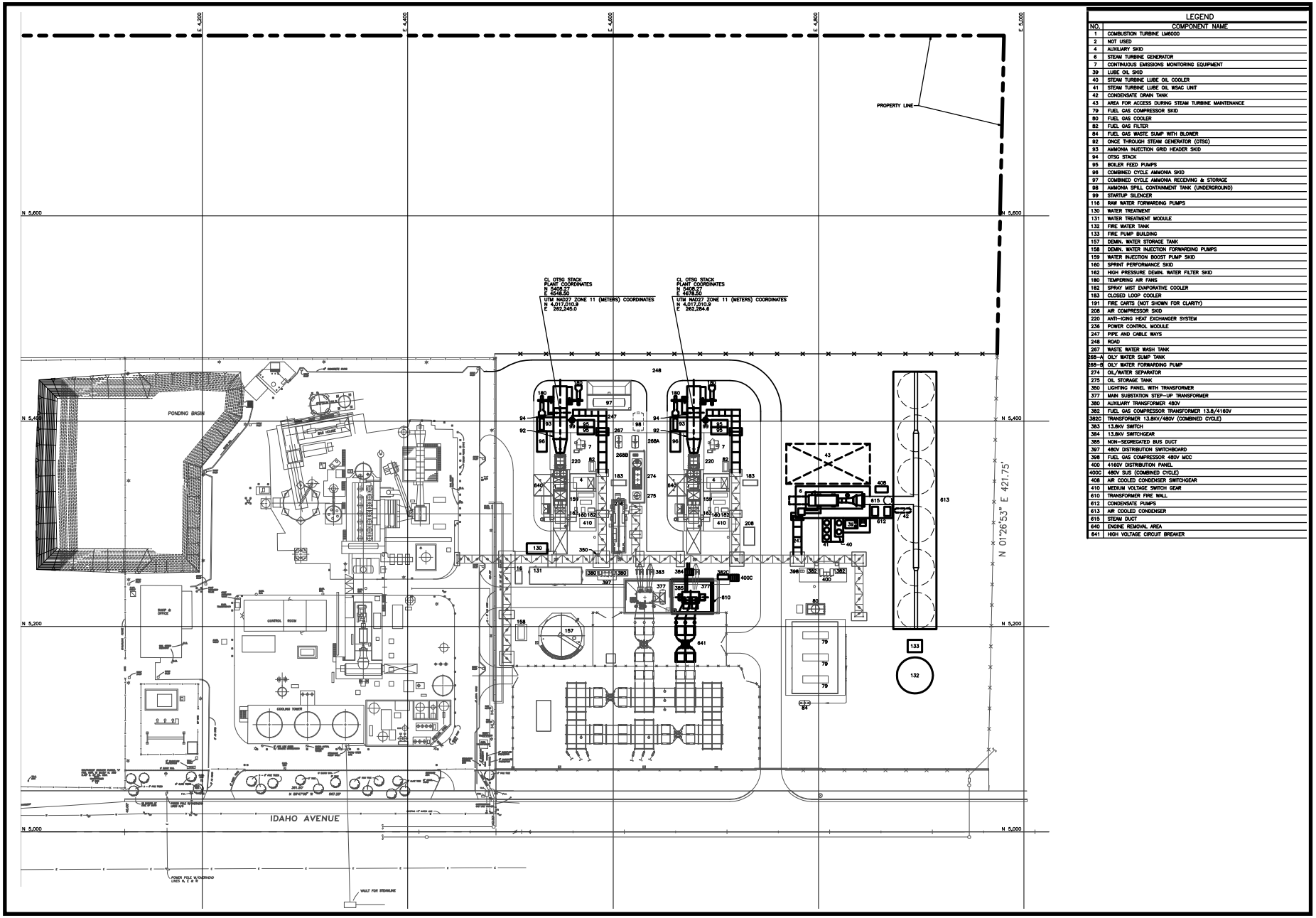
1. The change in the project will be beneficial to the public, Applicant, and intervenor by providing additional local generating capacity, construction and

operations employment, and tax revenues, with no increase in fuel use or environmental impacts compared to the approved project; and

2. There has been a substantial change in circumstances since the original approval justifying the change in that the demand for electrical power and energy has increased substantially in the region of the project, and the applicant can increase power production without any increase in fuel use or environmental impact.

PROJECT DESCRIPTION - FIGURE 1

Hanford Amendment Project - General Arrangement



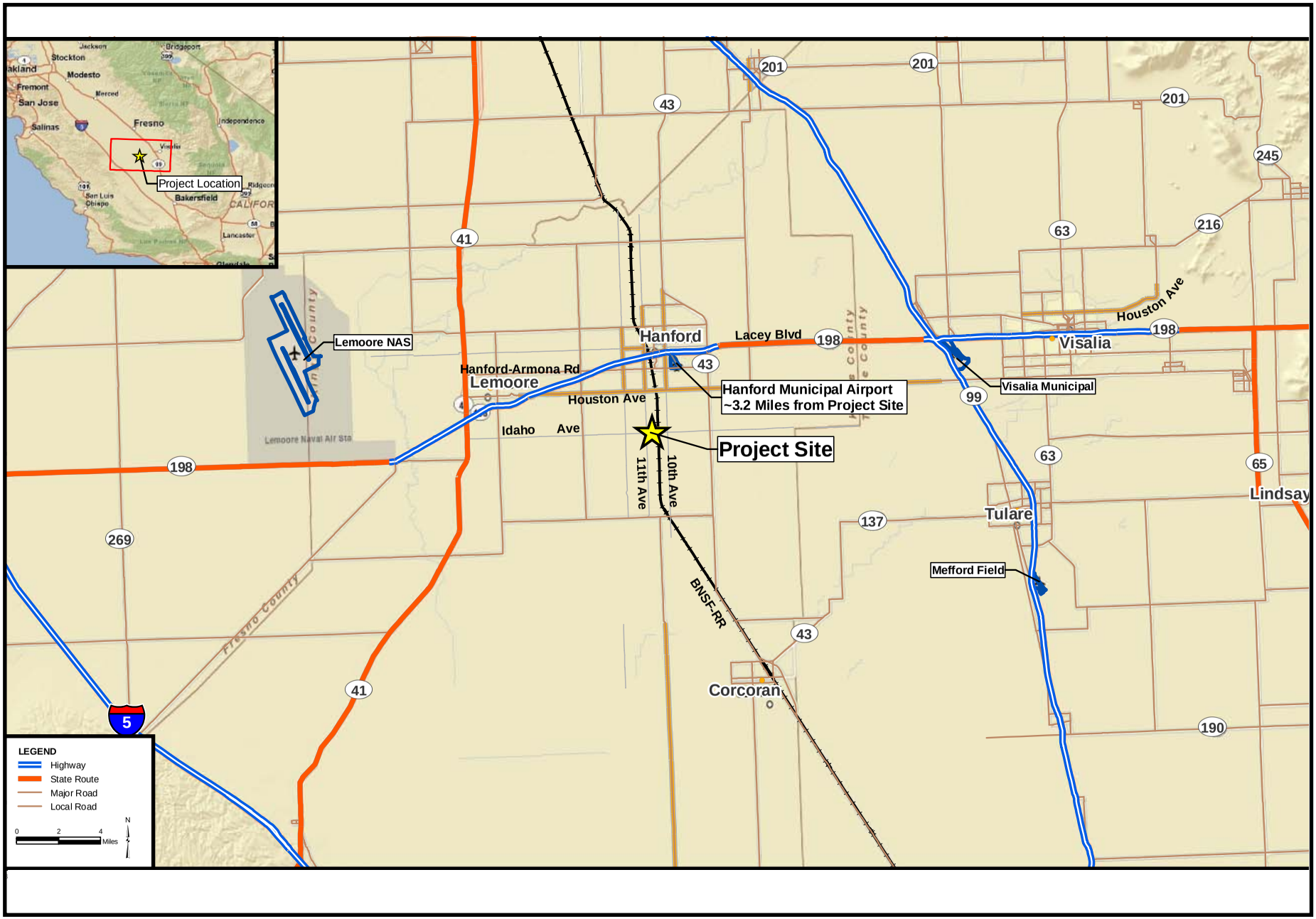
LEGEND	
NO.	COMPONENT NAME
1	COMBUSTION TURBINE LM6000
2	NOT USED
4	AUXILIARY SKID
6	STEAM TURBINE GENERATOR
7	CONTINUOUS EMISSIONS MONITORING EQUIPMENT
39	LUBE OIL SKID
40	STEAM TURBINE LUBE OIL COOLER
41	STEAM TURBINE LUBE OIL WSAC UNIT
42	CONDENSATE DRAIN TANK
43	AREA FOR ACCESS DURING STEAM TURBINE MAINTENANCE
79	FUEL GAS COMPRESSOR SKID
80	FUEL GAS COOLER
82	FUEL GAS FILTER
84	FUEL GAS WASTE SUMP WITH BLOWER
92	ONCE THROUGH STEAM GENERATOR (OTSG)
93	AMMONIA INJECTION GRID HEADER SKID
94	OTSG STACK
95	BOILER FEED PUMPS
96	COMBINED CYCLE AMMONIA SKID
97	COMBINED CYCLE AMMONIA RECEIVING & STORAGE
98	AMMONIA SPILL CONTAINMENT TANK (UNDERGROUND)
99	STARTUP SILENCER
116	RAW WATER FORWARDING PUMPS
130	WATER TREATMENT
131	WATER TREATMENT MODULE
132	FIRE WATER TANK
133	FIRE PUMP BUILDING
157	DEMIN. WATER STORAGE TANK
158	DEMIN. WATER INJECTION FORWARDING PUMPS
159	WATER INJECTION BOOST PUMP SKID
160	SPRINT PERFORMANCE SKID
162	HIGH PRESSURE DEMIN. WATER FILTER SKID
180	TEMPERING AIR FANS
182	SPRAY MIST EVAPORATIVE COOLER
183	CLOSED LOOP COOLER
191	FIRE CARTS (NOT SHOWN FOR CLARITY)
208	AIR COMPRESSOR SKID
220	ANTI-ICING HEAT EXCHANGER SYSTEM
236	POWER CONTROL MODULE
247	PIPE AND CABLE WAYS
248	ROAD
267	WASTE WATER WASH TANK
268-A	OILY WATER SUMP TANK
268-B	OILY WATER FORWARDING PUMP
274	OIL/WATER SEPARATOR
275	OIL STORAGE TANK
350	LIGHTING PANEL WITH TRANSFORMER
377	MAIN SUBSTATION STEP-UP TRANSFORMER
380	AUXILIARY TRANSFORMER 480V
382	FUEL GAS COMPRESSOR TRANSFORMER 13.8/4160V
382C	TRANSFORMER 13.8KV/480V (COMBINED CYCLE)
383	13.8KV SWITCH
384	13.8KV SWITCHGEAR
385	NON-SEGREGATED BUS DUCT
397	480V DISTRIBUTION SWITCHBOARD
398	FUEL GAS COMPRESSOR 480V MCC
400	4160V DISTRIBUTION PANEL
400C	480V SUS (COMBINED CYCLE)
408	AIR COOLED CONDENSER SWITCHGEAR
410	MEDIUM VOLTAGE SWITCH GEAR
610	TRANSFORMER FIRE WALL
612	CONDENSATE PUMPS
613	AIR COOLED CONDENSER
615	STEAM DUCT
640	ENGINE REMOVAL AREA
641	HIGH VOLTAGE CIRCUIT BREAKER

CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, OCTOBER 2009

SOURCE: Hanford Amendment #1

PROJECT DESCRIPTION - FIGURE 2

Hanford Amendment Project - Regional Setting



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, OCTOBER 2009

SOURCE: Hanford Amendment #1

II. PROJECT ALTERNATIVES

COMMISSION DISCUSSION

Because the project is an amendment to an existing license, and because the new project modifications would increase generating capacity without increasing fuel use or environmental impact, this topic was not addressed in the Staff Assessment of the Amendment Petition.

Because no significant environmental effects of the HEPP were found in the 2001 Decision approving the project, the applicant did not need to, nor did it attempt to weigh the relative merits of alternative sites against the proposed project location. A similar situation exists here in that we have found no significant effects from the amended project and need not compare the new location to alternative sites or technologies.

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. If all Conditions of Certification contained in this Decision are implemented, construction and operation of the Hanford Combined-Cycle Power Plant will not create any significant direct, indirect, or cumulative environmental impacts.
2. The 2001 Decision and the evidentiary record contain an adequate review of alternative technologies, fuels, the no-project alternative and alternative site locations.
3. No feasible technology alternatives such as geothermal, solar, or wind resources are located near the project or are capable of meeting project objectives.
4. The use of alternative generating technologies would not prove efficient, cost-effective or mitigate any significant environmental impacts to levels of insignificance.
5. No significant environmental impacts would be avoided under the no-project alternative.

III. COMPLIANCE AND CLOSURE[5]

The project General Conditions Including Compliance Monitoring and Closure Plan (Compliance Plan) have been established as required by Public Resources Code section 25532. The plan was not explicitly included in the Commission's 2001 Order approving the HEPP, but rather was included by reference from the Small Power Plant Exemption proceeding conducted on the HEPP, which GWF agreed to abide by during construction, operation and closure of the HEPP.[6] The plan provides a means for assuring that the facility is constructed, operated, and closed in conjunction with air and water quality, public health and safety, environmental, and other applicable regulations, guidelines, and conditions adopted or established by the Energy Commission and specified in the written decision on the Application for Certification or otherwise required by law.

The project's General Compliance Conditions of Certification, including Compliance Monitoring and Closure Plan (Compliance Plan) have been established as required by Public Resources Code section 25532. The plan provides a means for assuring that the facility is constructed, operated and closed in compliance with public health and safety, environmental and other applicable regulations, guidelines, and conditions adopted or established by the California Energy Commission and specified in the written decision on the Application for Certification or otherwise required by law.

[5] Unlike other topics in the Decision, this section replaces, rather than supplements, its counterpart in the 2001 Decision. Since the adoption of the 2001 Decision, Staff's format for its compliance monitoring and closure conditions has changed. Formerly it consisted of a long narrative without specifically numbered conditions. Now, while there are numbered conditions, the format remains largely a narrative. In essence, however, the General Conditions of Compliance listed below are substantively identical to the General Conditions of Exemption referenced in the 2001 Decision.

[6] GWF initially submitted its application for the HEPP under the Commission's SPPE proceeding. Commission staff conducted an initial study of the SPPE application and determined that the project was eligible for SPPE, and mandated certain Conditions of Exemption as part of the approval of the application. However, GWF later withdrew the SPPE application because of inadequate transmission system capacity in the area. GWF then filed an application for a downsized HEPP under the Commission's 21-Day Emergency Peaker program. GWF agreed in its Emergency Peaker application to abide by all the General Conditions of Exemption included in the Initial Study of the SPPE application. That agreement is referenced in the Commission's 2001 Order approving the HEPP (Pg. 3).

The Compliance Plan is composed of elements that:

- set forth the duties and responsibilities of the Compliance Project Manager (CPM), the project owner, delegate agencies, and others;
- set forth the requirements for handling confidential records and maintaining the compliance record;
- state procedures for settling disputes and making post-certification changes;
- state the requirements for periodic compliance reports and other administrative procedures that are necessary to verify the compliance status for all Energy Commission approved conditions of certification;
- establish requirements for facility closure plans; and
- specify conditions of certification for each technical area containing the measures required to mitigate any and all potential adverse project impacts associated with construction, operation and closure below a level of significance. Each specific condition of certification also includes a verification provision that describes the method of assuring that the condition has been satisfied.

DEFINITIONS

The following terms and definitions are used to establish when Conditions of Certification are implemented.

Pre-construction Site Mobilization

Site mobilization is limited preconstruction activities at the site to allow for the installation of fencing, construction trailers, construction trailer utilities, and construction trailer parking at the site. Limited ground disturbance, grading, and trenching associated with the above mentioned pre-construction activities is considered part of site mobilization. Walking, driving or parking a passenger vehicle, pickup truck and light vehicles is allowable during site mobilization.

Construction

Onsite work to install permanent equipment or structures for any facility.

Ground Disturbance

Construction-related ground disturbance refers to activities that result in the removal of top soil or vegetation at the site beyond site mobilization needs, and for access roads and linear facilities.

Grading, Boring, and Trenching

Construction-related grading, boring, and trenching refers to activities that result in subsurface soil work at the site and for access roads and linear facilities, e.g., alteration of the topographical features such as leveling, removal of hills or high spots, moving of soil from one area to another, and removal of soil.

Notwithstanding the definitions of ground disturbance, grading, boring and trenching above, construction does not include the following:

1. the installation of environmental monitoring equipment;
2. a soil or geological investigation;
3. a topographical survey;
4. any other study or investigation to determine the environmental acceptability or feasibility of the use of the site for any particular facility; and
5. any work to provide access to the site for any of the purposes specified in "Construction" 1, 2, 3, or 4 above.

Start of Commercial Operation

For compliance monitoring purposes, "commercial operation" begins after the completion of start-up and commissioning, when the power plant has reached reliable steady-state production of electricity at the rated capacity. At the start of commercial operation, plant control is usually transferred from the construction manager to the plant operations manager.

A. COMPLIANCE PROJECT MANAGER RESPONSIBILITIES

The Compliance Project Manager (CPM) shall oversee the compliance monitoring and is responsible for:

1. Ensuring that the design, construction, operation, and closure of the project facilities are in compliance with the terms and conditions of the Energy Commission Decision
2. Resolving complaints
3. Processing post-certification changes to the conditions of certification, project description (petition to amend), and ownership or operational control (petition for change of ownership) (See instructions for filing petitions)
4. Documenting and tracking compliance filings
5. Ensuring that compliance files are maintained and accessible

The CPM is the contact person for the Energy Commission and will consult with appropriate responsible agencies, Energy Commission, and staff when handling disputes, complaints, and amendments.

All project compliance submittals are submitted to the CPM for processing. Where a submittal required by a condition of certification requires CPM approval, the approval will involve all appropriate Energy Commission staff and management. All submittals must include searchable electronic versions (pdf or word files).

Pre-Construction and Pre-Operation Compliance Meeting

The CPM usually schedules pre-construction and pre-operation compliance meetings prior to the projected start-dates of construction, plant operation, or both. The purpose of these meetings is to assemble both the Energy Commission's and project owner's technical staff to review the status of all pre-construction or pre-operation requirements, contained in the Energy Commission's conditions of certification. This is to confirm that all applicable conditions of certification have been met, or if they have not been met, to ensure that the proper action is taken. In addition, these meetings ensure, to the extent possible, that Energy Commission conditions will not delay the construction and operation of the plant due to oversight and to preclude any last minute, unforeseen issues from arising. Pre-construction meetings held during the certification process must be publicly noticed unless they are confined to administrative issues and processes.

Energy Commission Record

The Energy Commission shall maintain the following documents and information as a public record, in either the Compliance file or Dockets file, for the life of the project (or other period as required):

- All documents demonstrating compliance with any legal requirements relating to the construction and operation of the facility;
- All monthly and annual compliance reports filed by the project owner;
- All complaints of noncompliance filed with the Energy Commission; and
- All petitions for project or condition of certification changes and the resulting staff or Energy Commission action.

B. PROJECT OWNER RESPONSIBILITIES

The project owner is responsible for ensuring that the compliance conditions of certification and all other conditions of certification that appear in the Commission Decision are satisfied. The compliance conditions regarding post-certification changes specify measures that the project owner must take when requesting changes in the project design, conditions of certification, or ownership. Failure to comply with any of the conditions of certification or the compliance conditions may result in reopening of the case and revocation of Energy Commission certification; an administrative fine; or other action as appropriate. A summary of the Compliance Conditions of Certification is included as **Compliance Table 1** at the conclusion of this section.

COMPLIANCE CONDITIONS OF CERTIFICATION

UNRESTRICTED ACCESS (COMPLIANCE-1)

The CPM, responsible Energy Commission staff, and delegated agencies or consultants shall be guaranteed and granted unrestricted access to the power plant site, related facilities, project-related staff, and the records maintained on-site, for the purpose of conducting audits, surveys, inspections, or general site visits. Although the CPM will

normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time.

COMPLIANCE RECORD (COMPLIANCE-2)

The project owner shall maintain project files on-site or at an alternative site approved by the CPM for the life of the project, unless a lesser period of time is specified by the conditions of certification. The files shall contain copies of all "as-built" drawings, documents submitted as verification for conditions, and other project-related documents.

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

COMPLIANCE VERIFICATION SUBMITTALS (COMPLIANCE-3)

Each condition of certification is followed by a means of verification. The verification describes the Energy Commission's procedure(s) to ensure post-certification compliance with adopted conditions. The verification procedures, unlike the conditions, may be modified as necessary by the CPM.

Verification of compliance with the conditions of certification can be accomplished by the following:

1. Monthly and/or annual compliance reports, filed by the project owner or authorized agent, reporting on work done and providing pertinent documentation, as required by the specific conditions of certification;
2. Appropriate letters from delegate agencies verifying compliance;
3. Energy Commission staff audits of project records; and/or
4. Energy Commission staff inspections of work, or other evidence that the requirements are satisfied.

Verification lead times associated with start of construction may require the project owner to file submittals during the certification process, particularly if construction is planned to commence shortly after certification.

A cover letter from the project owner or authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. The cover letter subject line shall identify the project by AFC number, the appropriate condition(s) of certification by condition number(s), and a brief description of the subject of the submittal. The project owner shall also identify those submittals not required by a condition of certification with a statement such as: "This submittal is for information only and is not required by a specific condition of certification." When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal and CEC submittal number.

The project owner is responsible for the delivery and content of all verification submittals to the CPM, whether such condition was satisfied by work performed by the project owner or an agent of the project owner.

All hardcopy submittals shall be addressed as follows:

Compliance Project Manager
(0X-AFC-XC)
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

Those submittals shall be accompanied by a searchable electronic copy, on a CD or by e-mail, as agreed upon by the CPM.

If the project owner desires Energy Commission staff action by a specific date, that request shall be made in the submittal cover letter and shall include a detailed explanation of the effects on the project if that date is not met.

PRE-CONSTRUCTION MATRIX AND TASKS PRIOR TO START OF CONSTRUCTION (COMPLIANCE-4)

Prior to commencing construction, a compliance matrix addressing only those conditions that must be fulfilled before the start of construction shall be submitted by the project owner to the CPM. This matrix will be included with the project owner's first

compliance submittal or prior to the first pre-construction meeting, whichever comes first. It will be submitted in the same format as the compliance matrix described below.
Construction shall not commence until the pre-construction matrix is submitted, all pre-construction conditions have been complied with, and the CPM has issued a letter to the project owner authorizing construction. Various lead times for submittal of compliance verification documents to the CPM for conditions of certification are established to allow sufficient staff time to review and comment and, if necessary, allow the project owner to revise the submittal in a timely manner. This will ensure that project construction may proceed according to schedule.

Failure to submit compliance documents within the specified lead-time may result in delays in authorization to commence various stages of project development.
If the project owner anticipates commencing project construction as soon as the project is certified, it may be necessary for the project owner to file compliance submittals prior to project certification. Compliance submittals should be completed in advance where the necessary lead time for a required compliance event extends beyond the date anticipated for start of construction. The project owner must understand that the submittal of compliance documents prior to project certification is at the owner's own risk. Any approval by Energy Commission staff is subject to change, based upon the Commission Decision.

Compliance Reporting

There are two different compliance reports that the project owner must submit to assist the CPM in tracking activities and monitoring compliance with the terms and conditions of the Energy Commission Decision. During construction, the project owner or authorized agent will submit Monthly Compliance Reports. During operation, an Annual Compliance Report must be submitted. These reports, and the requirement for an accompanying compliance matrix, are described below. The majority of the conditions of certification require that compliance submittals be submitted to the CPM in the monthly or annual compliance reports.

COMPLIANCE MATRIX (COMPLIANCE-5)

A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report. The compliance matrix is intended to provide the CPM with the current status of all conditions of certification in a spreadsheet format. The compliance matrix must identify:

1. the technical area;
2. the condition number;
3. a brief description of the verification action or submittal required by the condition;
4. the date the submittal is required (e.g., 60 days prior to construction, after final inspection, etc.);
5. the expected or actual submittal date;
6. the date a submittal or action was approved by the Chief Building Official (CBO), CPM, or delegate agency, if applicable; and
7. the compliance status of each condition, e.g., “not started,” “in progress” or “completed” (include the date).
8. if the condition was amended, the date of the amendment.

Satisfied conditions shall be placed at the end of the matrix.

MONTHLY COMPLIANCE REPORT (COMPLIANCE-6)

The first Monthly Compliance Report is due one month following the Energy Commission business meeting date upon which the project was approved, unless otherwise agreed to by the CPM. The first Monthly Compliance Report shall include the AFC number and an initial list of dates for each of the events identified on the **Key Events List. The Key Events List Form is found at the end of this section.**

During pre-construction and construction of the project, the project owner or authorized agent shall submit an original and an electronic searchable version of the Monthly Compliance Report within 10 working days after the end of each reporting month. Monthly Compliance Reports shall be clearly identified for the month being reported. The reports shall contain, at a minimum:

1. A summary of the current project construction status, a revised/updated schedule if there are significant delays, and an explanation of any significant changes to the schedule;
2. Documents required by specific conditions to be submitted along with the Monthly Compliance Report. Each of these items must be identified in the transmittal letter, as well as the conditions they satisfy and submitted as attachments to the Monthly Compliance Report;
3. An initial, and thereafter updated, compliance matrix showing the status of all conditions of certification;
4. A list of conditions that have been satisfied during the reporting period, and a description or reference to the actions that satisfied the condition;
5. A list of any submittal deadlines that were missed, accompanied by an explanation and an estimate of when the information will be provided;
6. A cumulative listing of any approved changes to conditions of certification;
7. A listing of any filings submitted to, or permits issued by, other governmental agencies during the month;
8. A projection of project compliance activities scheduled during the next two months. The project owner shall notify the CPM as soon as any changes are made to the project construction schedule that would affect compliance with conditions of certification;
9. A listing of the month's additions to the on-site compliance file; and
10. A listing of complaints, notices of violation, official warnings, and citations received during the month, a description of the resolution of the resolved actions, and the status of any unresolved actions.

All sections, exhibits, or addendums shall be separated by tabbed dividers or as acceptable by the CPM.

ANNUAL COMPLIANCE REPORT (COMPLIANCE-7)

After construction is complete, the project owner shall submit Annual Compliance Reports instead of Monthly Compliance Reports. The reports are for each year of commercial operation and are due to the CPM each year at a date agreed to by the CPM. Annual Compliance Reports shall be submitted over the life of the project unless otherwise specified by the CPM. Each Annual Compliance Report shall include the AFC number, identify the reporting period and shall contain the following:

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

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

3. Documents required by specific conditions to be submitted along with the Annual Compliance Report. Each of these items must be identified in the transmittal letter, with the condition it satisfies, and submitted as attachments to the Annual Compliance Report;

4. A cumulative listing of all post-certification changes approved by the Energy Commission or cleared by the CPM;

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

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

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

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

9. An evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions necessary for bringing the plan up to date [see Compliance Conditions for Facility Closure addressed later in this section]; and

10. A listing of complaints, notices of violation, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and the status of any unresolved matters.

CONFIDENTIAL INFORMATION (COMPLIANCE-8)

Any information that the project owner deems confidential shall be submitted to the Energy Commission's Dockets Unit with an application for confidentiality pursuant to Title 20, California Code of Regulations, section 2505(a). Any information that is determined to be confidential shall be kept confidential as provided for in Title 20, California Code of Regulations, section 2501 et. seq.

ANNUAL ENERGY FACILITY COMPLIANCE FEE (COMPLIANCE-9)

Pursuant to the provisions of Section 25806(b) of the Public Resources Code, the project owner is required to pay an annual compliance fee, which is adjusted annually. Current Compliance fee information is available on the Energy Commission's website http://www.energy.ca.gov/siting/filing_fees.html. You may also contact the CPM for the current fee information. The initial payment is due on the date the Energy Commission adopts the final decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification. The payment instrument shall be made payable to the California Energy Commission and mailed to: Accounting Office MS-02, California Energy Commission, 1516 9th St., Sacramento, CA 95814.

REPORTING OF COMPLAINTS, NOTICES, AND CITATIONS (COMPLIANCE-10)

Prior to the start of construction, the project owner must send a letter to property owners living within one mile of the project notifying them of a telephone number to contact project representatives with questions, complaints or concerns. If the telephone is not staffed 24 hours per day, it shall include automatic answering with date and time stamp recording. All recorded complaints shall be responded to within 24 hours. The telephone number shall be posted at the project site and made easily visible to passersby during construction and operation. The telephone number shall be provided to the CPM who will post it on the Energy Commission's web page at:
http://www.energy.ca.gov/sitingcases/power_plants_contacts.html

Any changes to the telephone number shall be submitted immediately to the CPM, who will update the web page.

In addition to the monthly and annual compliance reporting requirements described above, the project owner shall report and provide copies to the CPM of all complaint forms, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt. Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the **NOISE**

conditions of certification. All other complaints shall be recorded on the complaint form (Attachment A).

Facility Closure

At some point in the future, the project will cease operation and close down. At that time, it will be necessary to ensure that the closure occurs in such a way that public health and safety and the environment are protected from adverse impacts. Although the project setting for this project does not appear, at this time, to present any special or unusual closure problems, it is impossible to foresee what the situation will be in 30 years or more when the project ceases operation. Therefore, provisions must be made that provide the flexibility to deal with the specific situation and project setting that exist at the time of closure. Laws, Ordinances, Regulations and Standards (LORS) pertaining to facility closure are identified in the sections dealing with each technical area. Facility closure will be consistent with LORS in effect at the time of closure.

There are at least three circumstances in which a facility closure can take place: planned closure, unplanned temporary closure and unplanned permanent closure**.**

CLOSURE DEFINITIONS

PLANNED CLOSURE

A planned closure occurs when the facility is closed in an anticipated, orderly manner, at the end of its useful economic or mechanical life, or due to gradual obsolescence.

UNPLANNED TEMPORARY CLOSURE

An unplanned temporary closure occurs when the facility is closed suddenly and/or unexpectedly, on a short-term basis, due to unforeseen circumstances such as a natural disaster or an emergency.

UNPLANNED PERMANENT CLOSURE

An unplanned permanent closure occurs if the project owner closes the facility suddenly and/or unexpectedly, on a permanent basis. This includes unplanned closure where the

owner implements the on-site contingency plan. It can also include unplanned closure where the project owner fails to implement the contingency plan, and the project is essentially abandoned.

COMPLIANCE CONDITIONS FOR FACILITY CLOSURE

PLANNED CLOSURE (COMPLIANCE-11)

In order to ensure that a planned facility closure does not create adverse impacts, a closure process that provides for careful consideration of available options and applicable laws, ordinances, regulations, standards, and local/regional plans in existence at the time of closure, will be undertaken. To ensure adequate review of a planned project closure, the project owner shall submit a proposed facility closure plan to the Energy Commission for review and approval at least 12 months (or other period of time agreed to by the CPM) prior to commencement of closure activities. The project owner shall file 120 copies (or other number of copies agreed upon by the CPM) of a proposed facility closure plan with the Energy Commission.
The plan shall:

1. identify and discuss any impacts and mitigation to address significant adverse impacts associated with proposed closure activities and to address facilities, equipment, or other project related remnants that will remain at the site;

2. identify a schedule of activities for closure of the power plant site, transmission line corridor, and all other appurtenant facilities constructed as part of the project;

3. identify any facilities or equipment intended to remain on site after closure, the reason, and any future use; and

4. address conformance of the plan with all applicable laws, ordinances, regulations, standards, and local/regional plans in existence at the time of facility closure, and applicable conditions of certification.

Prior to submittal of the proposed facility closure plan, a meeting shall be held between the project owner and the Energy Commission CPM for the purpose of discussing the specific contents of the plan.

In the event that there are significant issues associated with the proposed facility closure plan's approval, or the desires of local officials or interested parties are inconsistent with the plan, the CPM shall hold one or more workshops and/or the Energy Commission may hold public hearings as part of its approval procedure.

As necessary, prior to or during the closure plan process, the project owner shall take appropriate steps to eliminate any immediate threats to public health and safety and the environment, but shall not commence any other closure activities until the Energy Commission approves the facility closure plan.

UNPLANNED TEMPORARY CLOSURE/ON-SITE CONTINGENCY PLAN (COMPLIANCE-12)

In order to ensure that public health and safety and the environment are protected in the event of an unplanned temporary facility closure, it is essential to have an on-site contingency plan in place. The on-site contingency plan will help to ensure that all necessary steps to mitigate public health and safety impacts and environmental impacts are taken in a timely manner.

The project owner shall submit an on-site contingency plan for CPM review and approval. The plan shall be submitted no less than 60 days (or other time agreed to by the CPM) prior to commencement of commercial operation. The approved plan must be in place prior to commercial operation of the facility and shall be kept at the site at all times.

The project owner, in consultation with the CPM, will update the on-site contingency plan as necessary. The CPM may require revisions to the on-site contingency plan over the life of the project. In the annual compliance reports submitted to the Energy Commission, the project owner will review the on-site contingency plan, and recommend changes to bring the plan up to date. Any changes to the plan must be approved by the CPM.

The on-site contingency plan shall provide for taking immediate steps to secure the facility from trespassing or encroachment. In addition, for closures of more than 90 days, unless other arrangements are agreed to by the CPM, the plan shall provide for removal of hazardous materials and hazardous wastes, draining of all chemicals from

storage tanks and other equipment, and the safe shutdown of all equipment. (Also see specific conditions of certification for the technical areas of Hazardous Materials Management and Waste Management.)

In addition, consistent with requirements under unplanned permanent closure addressed below, the nature and extent of insurance coverage, and major equipment warranties must also be included in the on-site contingency plan. In addition, the status of the insurance coverage and major equipment warranties must be updated in the annual compliance reports.

In the event of an unplanned temporary closure, the project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the circumstances and expected duration of the closure.

If the CPM determines that an unplanned temporary closure is likely to be permanent, or for a duration of more than 12 months, a closure plan consistent with the requirements for a planned closure shall be developed and submitted to the CPM within 90 days of the CPM's determination (or other period of time agreed to by the CPM).

UNPLANNED PERMANENT CLOSURE/ON-SITE CONTINGENCY PLAN (COMPLIANCE-13)

The on-site contingency plan required for unplanned temporary closure shall also cover unplanned permanent facility closure. All of the requirements specified for unplanned temporary closure shall also apply to unplanned permanent closure.

In addition, the on-site contingency plan shall address how the project owner will ensure that all required closure steps will be successfully undertaken in the event of abandonment.

In the event of an unplanned permanent closure, the project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the status of all closure activities.

A closure plan, consistent with the requirements for a planned closure, shall be developed and submitted to the CPM within 90 days of the permanent closure or another period of time agreed to by the CPM.

POST CERTIFICATION CHANGES TO THE ENERGY COMMISSION DECISION: AMENDMENTS, OWNERSHIP CHANGES, STAFF APPROVED PROJECT MODIFICATIONS AND VERIFICATION CHANGES (COMPLIANCE-14)

The project owner must petition the Energy Commission pursuant to Title 20, California Code of Regulations, section 1769, in order to modify the project (including linear facilities) design, operation or performance requirements, and to transfer ownership or operational control of the facility. It is the responsibility of the project owner to contact the CPM to determine if a proposed project change should be considered a project modification pursuant to section 1769. Implementation of a project modification without first securing Energy Commission, or Energy Commission staff approval, may result in enforcement action that could result in civil penalties in accordance with section 25534 of the Public Resources Code.

A petition is required for amendments and for staff approved project modifications as specified below. Both shall be filed as a "Petition to Amend." For verification changes, a letter from the project owner is sufficient. In all cases, the petition or letter requesting a change should be submitted to the CPM, who will file it with the Energy Commission's Dockets Unit in accordance with Title 20, California Code of Regulations, section 1209.

The criteria that determine which type of approval and the process that applies are explained below. They reflect the provisions of Section 1769 at the time this condition was drafted. If the Commission's rules regarding amendments are amended, the rules in effect at the time an amendment is requested shall apply.

AMENDMENT

The project owner shall petition the Energy Commission, pursuant to Title 20, California Code of Regulations, Section 1769(a), when proposing modifications to the project (including linear facilities) design, operation, or performance requirements. If a proposed modification results in deletion or change of a condition of certification, or makes changes that would cause the project not to comply with any applicable laws, ordinances, regulations or standards, the petition will be processed as a formal amendment to the final decision, which requires public notice and review of the Energy Commission staff analysis, and approval by the full Commission. The petition shall be in the form of a legal brief and fulfill the requirements of Section 1769(a). Upon request, the CPM will provide you with a sample petition to use as a template.

CHANGE OF OWNERSHIP

Change of ownership or operational control also requires that the project owner file a petition pursuant to section 1769 (b). This process requires public notice and approval by the full Commission. The petition shall be in the form of a legal brief and fulfill the requirements of Section 1769(b). Upon request, the CPM will provide you with a sample petition to use as a template.

C. Staff Approved Project Modification

Modifications that do not result in deletions or changes to conditions of certification, that are compliant with laws, ordinances, regulations and standards and will not have significant environmental impacts may be authorized by the CPM as a staff approved project modification pursuant to section 1769(a) (2). Once staff files an intention to approve the proposed project modification, any person may file an objection to staff's determination within 14 days of service on the grounds that the modification does not meet the criteria of section 1769 (a)(2). If a person objects to staff's determination, the petition must be processed as a formal amendment to the decision and must be approved by the full commission at a noticed business meeting or hearing..

D. Verification Change

A verification may be modified by the CPM without requesting an amendment to the decision if the change does not conflict with the conditions of certification and provides an effective alternate means of verification.

E. CBO Delegation and Agency Cooperation

In performing construction and operation monitoring of the project, Energy Commission staff acts as, and has the authority of, the Chief Building Official (CBO). Energy Commission staff may delegate CBO responsibility to either an independent third party contractor or the local building official. Energy Commission staff retains CBO authority when selecting a delegate CBO, including enforcing and interpreting state and local codes, and use of discretion, as necessary, in implementing the various codes and standards.

Energy Commission staff may also seek the cooperation of state, regional and local agencies that have an interest in environmental protection when conducting project monitoring.

F. Enforcement

The Energy Commission's legal authority to enforce the terms and conditions of its Decision is specified in Public Resources Code sections 25534 and 25900. The Energy Commission may amend or revoke the certification for any facility, and may impose a civil penalty for any significant failure to comply with the terms or conditions of the Energy Commission Decision. The specific action and amount of any fines the Energy Commission may impose would take into account the specific circumstances of the incident(s). This would include such factors as the previous compliance history, whether the cause of the incident involves willful disregard of LORS, oversight, unforeseeable events, and other factors the Energy Commission may consider.

G. Noncompliance Complaint Procedures

Any person or agency may file a complaint alleging noncompliance with the conditions of certification. Such a complaint will be subject to review by the Energy Commission pursuant to Title 20, California Code of Regulations, section 1237, but in many

instances the noncompliance can be resolved by using the informal dispute resolution process. Both the informal and formal complaint procedure, as described in current State law and regulations, are described below. They shall be followed unless superseded by future law or regulations.

INFORMAL DISPUTE RESOLUTION PROCESS

The following procedure is designed to informally resolve disputes concerning the interpretation of compliance with the requirements of this compliance plan. The project owner, the Energy Commission, or any other party, including members of the public, may initiate an informal dispute resolution process. Disputes may pertain to actions or decisions made by any party, including the Energy Commission's delegate agents.

This process may precede the more formal complaint and investigation procedure specified in Title 20, California Code of Regulations, section 1237, but is not intended to be a substitute for, or prerequisite to it. This informal procedure may not be used to change the terms and conditions of certification as approved by the Energy Commission, although the agreed upon resolution may result in a project owner, or in some cases the Energy Commission staff, proposing an amendment.

The process encourages all parties involved in a dispute to discuss the matter and to reach an agreement resolving the dispute. If a dispute cannot be resolved, then the matter must be brought before the full Energy Commission for consideration via the complaint and investigation procedure.

Request for Informal Investigation

Any individual, group, or agency may request the Energy Commission to conduct an informal investigation of alleged noncompliance with the Energy Commission's terms and conditions of certification. All requests for informal investigations shall be made to the designated CPM.

Upon receipt of a request for informal investigation, the CPM shall promptly notify the project owner of the allegation by telephone and letter. All known and relevant

information of the alleged noncompliance shall be provided to the project owner and to the Energy Commission staff. The CPM will evaluate the request and the information to determine if further investigation is necessary. If the CPM finds that further investigation is necessary, the project owner will be asked to promptly investigate the matter. Within seven working days of the CPM's request, provide a written report to the CPM of the results of the investigation, including corrective measures proposed or undertaken. Depending on the urgency of the noncompliance matter, the CPM may conduct a site visit and/or request the project owner to also provide an initial verbal report, within 48 hours.

Request for Informal Meeting

In the event that either the party requesting an investigation or the Energy Commission staff is not satisfied with the project owner's report, investigation of the event, or corrective measures proposed or undertaken, either party may submit a written request to the CPM for a meeting with the project owner. Such request shall be made within 14 days of the project owner's filing of its written report. Upon receipt of such a request, the CPM shall:

1. immediately schedule a meeting with the requesting party and the project owner, to be held at a mutually convenient time and place;

2. secure the attendance of appropriate Energy Commission staff and staff of any other agencies with expertise in the subject area of concern, as necessary;

3. conduct such meeting in an informal and objective manner so as to encourage the voluntary settlement of the dispute in a fair and equitable manner;

4. After the conclusion of such a meeting, promptly prepare and distribute copies to all in attendance and to the project file, a summary memorandum that fairly and accurately identifies the positions of all parties and any understandings reached. If an agreement has not been reached, the CPM shall inform the complainant of the formal complaint process and requirements provided under Title 20, California Code of Regulations, section 1230 et seq.

FORMAL DISPUTE RESOLUTION PROCEDURE-COMPLAINTS AND INVESTIGATIONS

Any person may file a complaint with the Energy Commission's Dockets Unit alleging noncompliance with a Commission decision adopted pursuant to Public Resources

Code section 25500. Requirements for complaint filings and a description of how complaints are processed are in Title 20, California Code of Regulations, section 1237.

KEY EVENTS LIST

PROJECT: _____

DOCKET #: _____

COMPLIANCE PROJECT MANAGER: _____

EVENT DESCRIPTION	DATE
Certification Date	
Obtain Site Control	
Online Date	
POWER PLANT SITE ACTIVITIES	
Start Site Mobilization	
Start Ground Disturbance	
Start Grading	
Start Construction	
Begin Pouring Major Foundation Concrete	
Begin Installation of Major Equipment	
Completion of Installation of Major Equipment	
First Combustion of Gas Turbine	
Obtain Building Occupation Permit	
Start Commercial Operation	
Complete All Construction	
TRANSMISSION LINE ACTIVITIES	
Start T/L Construction	
Synchronization with Grid and Interconnection	
Complete T/L Construction	
FUEL SUPPLY LINE ACTIVITIES	
Start Gas Pipeline Construction and Interconnection	
Complete Gas Pipeline Construction	
WATER SUPPLY LINE ACTIVITIES	
Start Water Supply Line Construction	
Complete Water Supply Line Construction	

CONDITION NUMBER	SUBJECT	DESCRIPTION
COMPLIANCE-1	Unrestricted Access	The project owner shall grant Energy Commission staff and delegate agencies or consultants unrestricted access to the power plant site.
COMPLIANCE-2	Compliance Record	The project owner shall maintain project files on-site. Energy Commission staff and delegate agencies shall be given unrestricted access to the files.
COMPLIANCE-3	Compliance Verification Submittals	The project owner is responsible for the delivery and content of all verification submittals to the CPM, whether such condition was satisfied by work performed or the project owner or his agent.
COMPLIANCE-4	Pre-construction Matrix and Tasks Prior to Start of Construction	Construction shall not commence until the all of the following activities/submittals have been completed: • property owners living within one mile of the project have been notified of a telephone number to contact for questions, complaints or concerns, • a pre-construction matrix has been submitted identifying only those conditions that must be fulfilled before the start of construction, • all pre-construction conditions have been complied with, • the CPM has issued a letter to the project owner authorizing construction.
COMPLIANCE-5	Compliance Matrix	The project owner shall submit a compliance matrix (in a spreadsheet format) with each monthly and annual compliance report which includes the status of all compliance conditions of certification.
COMPLIANCE-6	Monthly Compliance Report including a Key Events List	During construction, the project owner shall submit Monthly Compliance Reports (MCRs) which include specific information. The first MCR is due the month following the Energy Commission business meeting date on which the project was approved and shall include an initial list of dates for each of the events identified on the Key Events List.
COMPLIANCE-7	Annual Compliance Reports	After construction ends and throughout the life of the project, the project owner shall submit Annual Compliance Reports instead of Monthly Compliance Reports.

CONDITION NUMBER	SUBJECT	DESCRIPTION
COMPLIANCE-8	Confidential Information	Any information the project owner deems confidential shall be submitted to the Energy Commission's Dockets Unit with a request for confidentiality.
COMPLIANCE-9	Annual fees	Payment of Annual Energy Facility Compliance Fee
COMPLIANCE-10	Reporting of Complaints, Notices and Citations	Within 10 days of receipt, the project owner shall report to the CPM, all notices, complaints, and citations.
COMPLIANCE-11	Planned Facility Closure	The project owner shall submit a closure plan to the CPM at least 12 months prior to commencement of a planned closure.
COMPLIANCE-12	Unplanned Temporary Facility Closure	To ensure that public health and safety and the environment are protected in the event of an unplanned temporary closure, the project owner shall submit an on-site contingency plan no less than 60 days prior to commencement of commercial operation.
COMPLIANCE-13	Unplanned Permanent Facility Closure	To ensure that public health and safety and the environment are protected in the event of an unplanned permanent closure, the project owner shall submit an on-site contingency plan no less than 60 days prior to commencement of commercial operation.
COMPLIANCE-14	Post-certification changes to the Decision	The project owner must petition the Energy Commission to delete or change a condition of certification, modify the project design or operational requirements and/or transfer ownership of operational control of the facility.

ATTACHMENT A
COMPLAINT REPORT/RESOLUTION FORM

COMPLAINT LOG NUMBER:_____ DOCKET NUMBER:_____
PROJECT NAME:_____

COMPLAINTANT INFORMATION

NAME:_____ PHONE NUMBER:_____

ADDRESS:_____

COMPLAINT

DATE COMPLAINT RECEIVED:_____ TIME COMPLAINT RECEIVED:_____

COMPLAINT RECEIVED BY: ☐ TELEPHONE ☐ IN WRITING (COPY ATTACHED)

DATE OF FIRST OCCURRENCE:_____

DESCRIPTION OF COMPLAINT (INCLUDING DATES, FREQUENCY, AND DURATION):_____

FINDINGS OF INVESTIGATION BY PLANT PERSONNEL:_____

DOES COMPLAINT RELATE TO VIOLATION OF A CEC REQUIREMENT? ☐ YES ☐ NO

DATE COMPLAINTANT CONTACTED TO DISCUSS FINDINGS:_____

DESCRIPTION OF CORECTIVE MEASURES TAKEN OR OTHER COMPLAINT RESOLUTION:_____

DOES COMPLAINTANT AGREE WITH PROPOSED RESOLUTION? ☐ YES ☐ NO

IF NOT, EXPLAIN:_____

CORRECTIVE ACTION

IF CORRECTIVE ACTION NECESSARY, DATE COMPLETED:_____

DATE FIRST LETTER SENT TO COMPLAINTANT (COPY ATTACHED):_____

DATE FINAL LETTER SENT TO COMPLAINTANT (COPY ATTACHED):_____

OTHER RELEVANT INFORMATION:_____

"This information is certified to be correct."

PLANT MANAGER SIGNATURE:_____ DATE:_____

(ATTACH ADDITIONAL PAGES AND ALL SUPPORTING DOCUMENTATION, AS REQUIRED)

IV. ENGINEERING ASSESSMENT

A. FACILITY DESIGN

The written testimony of Staff's witness, Steve Baker, states that the proposed project changes will not change the analysis in the 2001 Decision. (Staff Assessment Ex. 100, pp. 5.1.1 – 5.1.16.) However, Commission Staff has updated the conditions of compliance associated with Facility Design to assure that the new features of the project are designed, constructed and inspected in accordance with the applicable engineering LORS. Since the original Conditions of Certification were adopted, for example, the California Building Code (CBC) has been revised; references to the CBC in the Conditions should now be to the 2007 version. Those revisions have been made to the Conditions of Certification, below.

FINDINGS AND CONCLUSIONS

Based upon the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.

2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable engineering LORS.

3. The Facility Design aspects of the amended project do not create significant direct or cumulative environmental effects.

We therefore conclude that with the implementation of the Conditions of Certification listed below, the HEPP project is likely to be designed and constructed in conformity with applicable laws pertinent to its civil, structural, mechanical, and electrical engineering aspects.

CONDITIONS OF CERTIFICATION

GEN-1 The project owner shall design, construct, and inspect the project in accordance with the 2007 California Building Standards Code (CBSC), also known as Title 24, California Code of Regulations, which encompasses the California Building Code (CBC), California Building Standards Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering LORS in effect at the time initial design plans are submitted to the CBO for review and approval (the CBSC in effect is the edition that has been adopted by the California Building Standards Commission and published at least 180 days previously). The project owner shall ensure that all the provisions of the above applicable codes are enforced during the construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility. All transmission facilities (lines, switchyards, switching stations and substations) are covered in the conditions of certification in the Transmission System Engineering section of this document.

In the event that the initial engineering designs are submitted to the CBO when the successor to the 2007 CBSC is in effect, the 2007 CBSC provisions shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

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

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

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

Verification: At least 60 days (or a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule, the master drawing and master specifications lists 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.

Facility Design Table 1
Major Structures and Equipment List

Equipment/System	Quantity (Plant)
Steam Turbine and Generator (STG) Foundation and Connections	1 Lot
Once-Through Steam Generator (OTSG) & Stack Structure, Foundation and Connections	2
STG Main Transformer Foundation and Connections	1
CEMS Enclosure Structure, Foundation and Connections	2
Air Cooled Condenser Structure, Foundation and Connections	1
Water Treatment Area Structure, Foundation and Connections	1
Boiler Feedwater Pump Foundation and Connections	4
OTSG Blowdown Tank and Sump Structure, Foundation and Connections	1
Condensate Tank and Pumps Structure, Foundation and Connections	1
Waste Water Treatment Facility Structure, Foundation and Connections	1
STG Electrical Equipment Foundation and Connections	1
STG Lube Oil Skid Foundation and Connections	1
High Pressure and Large Diameter Piping and Pipe Racks	1 Lot
Substation, Switchboards, Transformers, Buses and Towers	1 Lot
Electrical Cables/Duct Banks	1 Lot
Prefabricated Assemblies	1 Lot

GEN-3 The project owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. These fees may be consistent with the fees listed in the 2007 CBC, adjusted for inflation and other appropriate adjustments; may be based on the value of the facilities reviewed; may be based on hourly rates; or may be otherwise agreed upon by the project owner and the CBO.

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

GEN-4 Prior to the start of rough grading, the project owner shall assign a California- registered architect, or a structural or civil engineer, as the Resident Engineer (RE) in charge of the project. All transmission facilities (lines, switchyards, switching stations, and substations) are addressed in the 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 that each part is clearly defined as a distinct unit. Separate assignments of general responsibility may be made for each designated part.

The RE shall:

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

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

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

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

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

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

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

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

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

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

owner shall notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five days of the approval.

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

GEN-5 Prior to the start of rough grading, the project owner shall assign at least one of each of the following California registered engineers to the project: a civil engineer; a soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering; and an engineering geologist. Prior to the start of construction, the project owner shall assign at least one of each of the following California registered engineers to the project: a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; a mechanical engineer; and an electrical engineer. (California Business and Professions Code section 6704 et seq., and sections 6730, 6731 and 6736 require state registration to practice as a civil engineer or structural engineer in California). All transmission facilities (lines, switchyards, switching stations, and substations) are handled in the 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 (for example, proposed earthwork, civil structures, power plant structures, equipment support). No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical engineer.

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

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

A. The civil engineer shall:

1. Review the foundation investigations, geotechnical, or soils reports prepared by the soils engineer, the geotechnical

engineer, or by a civil engineer experienced and knowledgeable in the practice of soils engineering;

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

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

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

1. Review all the engineering geology reports;

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

3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with requirements set forth in the 2007 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both); and

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

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

C. The engineering geologist shall:

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

2. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2007 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both).

D. The design engineer shall:

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

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

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

4. Evaluate and recommend necessary changes in design; and

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

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

F. The electrical engineer shall:

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

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

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

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

design engineer, mechanical engineer, and electrical engineer assigned to the project.

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

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

GEN-6 Prior to the start of an activity requiring special inspection, including prefabricated assemblies, the project owner shall assign to the project, qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2007 CBC. 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 certified weld inspector, certified by the American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) as applicable, shall inspect welding performed on-site requiring special inspection (including structural, piping, tanks and pressure vessels).

The special inspector shall:

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

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

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

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

Verification: At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of an activity requiring special inspection, the project owner shall submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s), or

other certified special inspector(s) assigned to the project to perform one or more of the duties set forth above. The project owner shall also submit to the CPM a copy of the CBO's approval of the qualifications of all special inspectors in the next monthly compliance report.

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

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

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

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

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

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

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

1. Design of the proposed drainage structures and the grading plan;

2. An erosion and sedimentation control plan;

3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and

4. Soils, geotechnical, or foundation investigations reports required by the 2007 CBC.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval. In the next monthly compliance report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.

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

Verification: The project owner shall notify the CPM within 24 hours, when earthwork and construction is stopped as a result of unforeseen adverse geologic/soil conditions. Within 24 hours of the CBO's approval to resume earthwork and construction in the affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.

CIVIL-3 The project owner shall perform inspections in accordance with the 2007 CBC. All plant site-grading operations, for which a grading permit is required, shall be subject to inspection by the CBO.

If, in the course of inspection, it is discovered that the work is not being performed in accordance with the approved plans, the discrepancies

shall be reported immediately to the resident engineer, the CBO, and the CPM. The project owner shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action.

Verification: Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a non-conformance report (NCR), and the proposed corrective action for review and approval. Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM. A list of NCRs, for the reporting month, shall also be included in the following monthly compliance report.

CIVIL-4 After completion of finished grading and erosion and sedimentation control and drainage work, the project owner shall obtain the CBO's approval of the final grading plans (including final changes) for the erosion and sedimentation control work. The civil engineer shall state that the work within his/her area of responsibility was done in accordance with the final approved plans.

Verification: Within 30 days (or project owner- and CBO-approved alternative time frame) of the completion of the erosion and sediment control mitigation and drainage work, the project owner shall submit to the CBO, for review and approval, the final grading plans (including final changes) and the responsible civil engineer's signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved combined grading plans, and that the facilities are adequate for their intended purposes, along 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 increment of construction of any major structure or component listed in Facility Design **Table 2** 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 those for the following items (from **Table 2**, 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 begin until the CBO has approved the lateral force procedures to be employed in designing that structure or component.

The project owner shall:

1. Obtain approval from the CBO of lateral force procedures proposed for project structures;

2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports, and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (for example, highest loads, or lowest allowable stresses shall govern). All plans, calculations, and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations, and specifications;

3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations, and other required documents of the designated major structures prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation;

4. Ensure that the final plans, calculations, and specifications clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. The final designs, plans, calculations, and specifications shall be signed and stamped by the responsible design engineer; and

5. Submit to the CBO the responsible design engineer's signed statement that the final design plans conform to applicable LORS.

Verification: At least 60 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of construction of any structure or component listed in Facility Design **Table 2** 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 comply with the requirements set forth in applicable engineering LORS.

STRUC-2 The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval:

1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity

of concrete placement from which sample was taken, and mix design designation and parameters);

2. Concrete pour sign-off sheets;

3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques);

4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and

5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2007 CBC.

Verification: If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies and the proposed corrective action to the CBO, with a copy of the transmittal letter to the CPM. The NCR shall reference the condition(s) of certification and the applicable CBC chapter and section. Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.

The project owner shall transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action to obtain CBO's approval.

STRUC-3 The project owner shall submit to the CBO design changes to the final plans required by the 2007 CBC, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing.

Verification: On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes, and shall submit the required number of sets of revised drawings and the required number of copies of the other above-mentioned documents to the CBO, with a copy of the transmittal letter to the CPM. The project owner shall notify the CPM, via the monthly compliance report, when the CBO has approved the revised plans.

STRUC-4 Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2007 CBC shall, at a minimum, be designed to comply with the requirements of that chapter.

Verification: At least 30 days (or project owner- and CBO-approved alternate time frame) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials, the project owner shall submit to the CBO for design review and approval final design plans, specifications, and calculations, including a copy of the signed and stamped engineer's certification.

Verification: 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 2**, 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 that construction.

The responsible mechanical engineer shall stamp and sign all plans, drawings, and calculations for the major piping and plumbing systems, subject to CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated, and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards, which may include, but are not limited to:

- American National Standards Institute (ANSI) B31.1 (Power Piping Code);
- ANSI B31.2 (Fuel Gas Piping Code);
- ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code);
- ANSI B31.8 (Gas Transmission and Distribution Piping Code);
- 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
- Imperial County codes.

The CBO may deputize inspectors to carry out the functions of the code enforcement agency.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of major piping or plumbing construction listed in Facility Design **Table 2**, 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 applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's inspection approvals.

MECH-2 For all pressure vessels installed in the plant, the project owner shall submit to the CBO and California Occupational Safety and Health Administration (Cal-OSHA), prior to operation, the code certification papers and other documents required by applicable LORS. Upon completion of the installation of any pressure vessel, the project owner shall request the appropriate CBO and/or Cal-OSHA inspection of that installation.
The project owner shall:

1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated, and installed in accordance with the appropriate section of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or other applicable code. Vendor certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and

2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of on-site fabrication or installation of any pressure vessel, the project owner shall submit to the CBO for design review and approval, the above listed documents, including a copy of the signed and stamped engineer's certification, with a copy of the transmittal letter to the CPM.

Verification: The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's and/or Cal-OSHA inspection approvals.

MECH-3 The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations, and quality control procedures for any heating, ventilating, air conditioning (HVAC) or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets.

The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval of that construction. The final plans, specifications and calculations shall include approved criteria, assumptions, and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with the applicable LORS.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to the CPM.

ELEC-1 Prior to the start of any increment of electrical construction for all electrical equipment and systems 480 Volts or higher (see a representative list, 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. 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. 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 shall 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 must establish:

1. short-circuit ratings of plant equipment;

2. ampacity of feeder cables;

3. voltage drop in feeder cables;

4. system grounding requirements;

5. coordination study calculations for fuses, circuit breakers and protective relay settings for the 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 time frame) prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for design review and approval the above listed documents. The project owner shall include in this submittal a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

B. POWER PLANT EFFICIENCY

Staff's witness, Erin Bright, in her written analysis (Ex. 100, pp. 5.3-1 – 5.3-2), testified that the proposed changes to the HEPP would increase fuel efficiency of the HEPP by approximately 24 percent, and would otherwise not change any of the findings or conclusions in the 2001 Decision.

FINDINGS AND CONCLUSIONS

Based on the evidence, the Energy Commission makes the following finding:

1. The Efficiency aspects of the amended project do not create significant direct or cumulative environmental effects.

We therefore conclude that the Hanford Combined-Cycle Power Plant will not cause any significant effects on energy supplies or energy resources.

No Conditions of Certification were adopted in the 2001 Decision and none are adopted in this Decision concerning the topic of Power Plant Efficiency.

C. POWER PLANT RELIABILITY

Staff's witness, Erin Bright, in her written analysis (Ex. 100, pp. 5.4-1 – 5.4-2), testified that the proposed changes to the HEPP would not change any of the findings or conclusions in the 2001 Decision.

FINDINGS AND CONCLUSIONS

Based on the evidence, the Energy Commission makes the following finding:

1. The Reliability aspects of the amended project do not create significant direct or cumulative environmental effects.

The Energy Commission, therefore, concludes that the project will not have an significant effect on system reliability.

No Conditions of Certification were adopted in the 2001 Decision and none are adopted in this Decision concerning the topic of Power Plant Reliability.

D. TRANSMISSION SYSTEM ENGINEERING

The written testimony of Sudath Arachchige and Mark Hesters reviewed the proposed changes to the transmission system associated with the conversion of the plant from simple-cycle to combined-cycle operations, which would result in a net increase of 25 MW in generating capacity to the PG&E grid. They reviewed the results of a System Impact Study conducted by Navigant Consulting, Inc., at GWF's request. Those studies identified the impacts on other parts of the interconnected transmission network and the likely network upgrades necessary to properly handle the increase in generation from the HEPP. Staff concluded that relatively minor mitigation measures would be needed to prevent system overloads caused by operation of the Hanford Combined-Cycle Power Plant, such as re-rating certain line segments, or implementing a Special Protection Scheme that would curtail operations from the facility in the event of a system overload. In the event that line segment re-ratings prove inadequate to prevent system overloads, staff identified a segment reconductoring project, upgrading the Chowchilla-Certainteed 115 kV line with conductors that have a normal ampacity rating of 440 Amps, that would prevent system overloads caused by operation of the Hanford Combined-Cycle Power Plant. A detailed facility study is required as a Condition of Compliance to ensure all potential overload conditions are identified and mitigated prior to commencing project operations (Ex. 100, pp. 5.5-1 – 5.5-9).

FINDINGS AND CONCLUSIONS

Based on the evidence, we find and conclude as follows:

1. The project as amended will continue to comply with all applicable LORS.

2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable engineering LORS.

3. The Transmission System Engineering aspects of the amended project do not create significant direct or cumulative environmental effects. The potential effects of the reconductoring of the Chowchilla-Certainteed 115 kV line that may be necessary by the construction of the Hanford Combined-Cycle Power Plant will not be significant if mitigation measures similar to those applied to other reconductoring projects are applied to this project; it is within the power of the Public Utilities Commission to impose those measures and the PUC can and should do so.

We therefore conclude that with the implementation of the various mitigation measures specified in this Decision, the proposed transmission interconnect for the project will not contribute to significant direct, indirect, or cumulative environmental impacts. The Conditions of Certification below ensure that the transmission related aspects of the HEPP will be designed, constructed, and operated in conformance with the applicable LORS.

CONDITIONS OF CERTIFICATION

TSE-1 The project owner shall furnish to the Compliance Project Manager (CPM) and to the Chief Building Official (CBO) a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested.

Verification: At least 60 days prior to the start of construction (or a lesser number of days mutually agreed to by the project owner and the CBO), the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with CPM and CBO approval. The project owner shall provide schedule updates in the Monthly Compliance Report.

TRANSMISSION SYSTEM ENGINEERING 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 Prior to the start of construction, the project owner shall assign an electrical engineer and at least one of each of the following to the project: 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 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 a civil engineer or structural engineer in California.

The tasks performed by the civil, mechanical, electrical, or design engineers may be divided between two or more engineers, as long as each engineer is responsible for a particular segment of the project (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 civil, geotechnical or civil, and design engineer assigned in conformance with 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 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.

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 prior to the start of rough grading (or a lesser number of days mutually agreed to by the project owner and the CBO), 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 (California Building Code, 1998, 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 shall reference 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 disapproval, and the revised corrective action required obtaining the CBO's approval.

TSE-4 For the power plant switchyard, outlet line, and termination, the project owner shall not begin any increment of construction until plans for that increment 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:

Receipt or delay of major electrical equipment;

Testing or energization of major electrical equipment; and

The number of electrical drawings approved, submitted for approval, and still to be submitted.

Verification: At least 30 days prior to the start of each increment of construction (or a lesser number of days mutually agreed to by the project owner and the CBO), 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, outlet line, and termination, including a copy of the signed and stamped statement from the responsible electrical engineer attesting to compliance with the 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, including 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 power plant outlet line shall meet or exceed the electrical, mechanical, civil, and structural requirements of CPUC General Order 95 and General Order 98 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) Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.

c) Outlet line crossings and line parallels with transmission and distribution facilities shall be coordinated with the transmission line owner and comply with the owner's standards.

d) The project conductors shall be sized to accommodate the full output from the project.

e) Termination facilities shall comply with applicable PG&E interconnection standards.

f) The project owner shall provide to the CPM:

   a. The final Detailed Facility Study (DFS) including a description of facility upgrades, operational mitigation measures, and/or Special Protection System (SPS) sequencing and timing if applicable; and,

   b. A copy of the executed LGIA signed by the California ISO and the project owner.

Verification: At least 60 days prior to the start of construction of transmission facilities (or a lessor number of days mutually agreed to by the project owner and CBO), the project owner shall submit to the CBO for approval:

1. Design drawings, specifications, and calculations conforming with CPUC General Order 95 and General Order 98 or NESC; Title 8, California Code of Regulations, Articles 35, 36, and 37 of the "High Voltage Electric Safety Orders"; NEC; applicable interconnection standards, and related industry standards for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment.
2. 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,"[7] 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 NESC; Title 8, California Code of Regulations, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders"; NEC; applicable interconnection standards, and related industry standards.
3. Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in responsible charge, a route map, and an engineering description of equipment and the configurations covered by requirements **TSE-5** 1) through 5) above.
4. The final Detailed Facility Study, including a description of facility upgrades, operational mitigation measures, and/or SPS sequencing and timing if applicable, shall be provided concurrently to the CPM.

TSE-6 The project owner shall provide the following Notice to the California Independent System Operator (California ISO) prior to synchronizing the facility with the California transmission system:

At least one week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and

1. At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.

Verification: The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one week prior to initial synchronization with the grid. A report of the conversation with the California ISO

[7] Worst-case conditions for the foundations would include for instance, a dead-end or angle pole.

shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.

TSE-7 The project owner shall be responsible for the inspection of the transmission facilities during and after project construction, and any subsequent CPM and CBO approved changes thereto, to ensure conformance with CPUC GO-95 or NESC; Title 8, CCR, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders"; applicable interconnection standards; NEC; and related industry standards. In case of non-conformance, the project owner shall inform the CPM and CBO in writing, within 10 days of discovering such non-conformance and describe the corrective actions to be taken.

Verification: Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO:

1. "As built" engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO-95 or NESC; Title 8, California Code of Regulations, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders"; applicable interconnection standards; NEC; and related industry standards, and these conditions shall be provided concurrently.
2. An "as built" engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in responsible charge or acceptable alternative verification. "As built" drawings of the electrical, mechanical, structural, and civil portion of the transmission facilities shall be maintained at the power plant and made available, if requested, for CPM audit as set forth in the "Compliance Monitoring Plan."

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.

E. TRANSMISSION LINE SAFETY AND NUISANCE

The testimony of Staff's witness, Obed Odoemelam, Ph.D., states that the proposed changes to the HEPP will comply with all applicable LORS, and all potential environmental impacts caused by construction of the new transmission facilities will be reduced to less than significant levels by compliance with regulatory and industry standards as required in the existing Condition **TSE-1**. The findings and conclusions in the 2001 Decision regarding Transmission Line Safety and Nuisance (TLSN) remain unchanged by the amendments to the project. (Ex. 100, pp. 4.11-1 – 4.11-11.)

Transmission system modifications associated with the requested HEPP modifications are limited to installation of a new step-up transformer for the new 25 MW STG. As noted above in the Transmission System Engineering (TSE) section, Staff has proposed revisions to the previously adopted TSE-related Conditions of Certification to update references to the applicable standards.

FINDINGS AND CONCLUSIONS

Based on the evidence, the Energy Commission makes the following findings and conclusions:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable engineering LORS. The transmission line will be designed in accordance with the electric and magnetic field reducing guidelines applicable to PG&E's transmission service area. The site and the route of the project's transmission line are within the city's Industrial Corridor with relatively few residences within one-mile radius of the project's property lines. The estimated EMF exposures from the transmission line are significantly below field levels established by states with regulatory limits for such fields.

3. The Transmission Line Safety and Nuisance aspects of the amended project do not create significant direct or cumulative environmental effects.

The Energy Commission, therefore, concludes that with implementation of the revised TSE-related Conditions of Certification, the project will conform with all applicable laws, ordinances, regulations, and standards relating to transmission line safety and nuisance and will not cause any significant environmental effects relating to transmission line safety.

V. PUBLIC HEALTH AND SAFETY ASSESSMENT

A. AIR QUALITY

Staff witness William Walters testified that his analysis determined whether the amended projects' air emissions will either cause a violation or add to an existing violation of a Federal or State air quality standard. Those standards are health based, and "are set at levels to adequately protect the health of all members of the public, including those most sensitive to adverse air quality, such as the aged, people with existing illnesses, and infants and children, while providing a margin of safety." (Ex. 100, p. 4.1-3.)

In addition to review by the Staff, the project was reviewed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or District), which has issued its Final Determination of Compliance (FDOC) for the project. The District found the project to be in compliance with all District rules and regulations. The bulk of the conditions of certification recommended by Staff are those recommended by the District in the FDOC.

The Applicant proposes the following project changes relevant to air quality:

1. Demolition and removal of the two existing oxidation catalyst and selective catalytic reduction (SCR) systems, including the existing catalyst housing and 85-foot stacks

2. Addition of a new oxidation catalyst system within each OTSG to control carbon monoxide (CO) emissions to outlet concentration of less than 3 parts per million volume dry (ppmvd) at 15 percent oxygen (O2) and volatile organic compounds (VOC) emissions to outlet concentration of less than 2 ppmvd at 15 percent O2 during simple-cycle and combined-cycle operation

3. Addition of a new SCR system within each OTSG, reusing the existing aqueous ammonia storage system, to control oxides of nitrogen (NOx) emissions to less than 2 ppmvd at 15 percent O2 during combined-cycle operation

4. A 460 hp Cummins model CFP15E-F10 Tier III certified diesel-fired emergency internal combustion engine is proposed to power a new firewater pump for the site

1. Construction Impacts

Staff reviewed the impacts from construction activities for the amended project and finds them to be no different than those analyzed in the 2001 Decision. It recommends, however, that the construction conditions in the 2001 Decision be updated to its current standard conditions, which reflect, among other things, current state and federal standards for construction engines, because of the project's potentially significant contribution to ongoing violations of state and federal air quality standards. We have done so in Conditions **AQ-SC1** through **AQ-SC7**, below. With those mitigation measures in place, the impacts from construction emissions will be less than significant. (Ex. 100, p. 4.1-36.)

2. Operation Impacts

Because the Hanford Combined-Cycle Power Plant would utilize the same CTG's currently used for the HEPP with new, updated selected catalytic reduction (SCR) and oxidation catalyst equipment, the project will have reduced emissions compared to the presently permitted HEPP. All criteria pollutants emissions would be decreased, as shown in AIR QUALITY Table 20 in the Staff Assessment (Ex. 100, p. 4.1-21. Therefore, additional offset mitigation would not be required as a result of operation of the amended GWF Hanford Combined-Cycle Power Plant.

The project would continue to contribute to existing violations of the state 24-hour and annual PM10 standards, the state annual PM2.5 standard, and the state 1-hour and the federal 8-hour ozone standards. However, the project owner has already surrendered more than sufficient Emission Reduction Credits to offset the project's potentially significant contribution to the cumulative air quality impacts creating ongoing violations of state and federal air quality standards. Therefore, the amended project's contribution to ongoing cumulative impacts would be less than significant (Ex. 100, p. 4.1-28.)

3. Greenhouse Gases

The generation of electricity using fossil fuels such as natural gas can produce air emissions known as greenhouse gases (GHGs) in addition to the criteria air pollutants. GHGs are known to contribute to the warming of the earth's atmosphere. These include primarily carbon dioxide, nitrous oxide (N_2O, not NO or NO_2, which are commonly know as NOx or oxides of nitrogen), and methane (unburned natural gas). Also included are sulfur hexafluoride (SF6) from transformers, and hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) from refrigeration/chillers.

The California Global Warming Solutions Act of 2006 (AB32) requires the California Air Resources Board (ARB) to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990 to be achieved by 2020. Gubernatorial executive Order S-03-05 (June 1, 2005) requires a further reduction to a level 80 percent below 1990 GHG emissions by the year 2050. Along with all other regulatory agencies in California, the Energy Commission recognizes that meeting the AB 32 goals is vital to the state's economic and environmental health. While AB 32 goals have yet to be translated into regulations that limit GHG emissions from generating facilities, the scoping plan adopted by ARB relies heavily on cost-effective energy efficiency and demand response, renewable energy, and prioritization of generation resources to achieve significant reductions in the electricity sector by 2050. Even more

dramatic reductions in the electricity sector will likely be required to meet California's 2050 greenhouse gas reduction goal. Facilities under the Energy Commission's jurisdiction, such as the GWF Hanford Combined-Cycle Power Plant, must be consistent with these policies.

The Electricity Greenhouse Gas Emission Standards Act (SB1368) was also enacted in 2006, requiring base load generation resources or contracts be subject to a GHG or Environmental Performance Standard. At its January 25, 2007 meeting, the California Public Utilities Commission adopted an Emissions Performance Standard for the state's Investor Owned Utilities of 1,100 pounds (or 0.5 metric tons) CO2 per megawatt-hour. The Emissions Performance Standard applies to base load power from new power plants, new investments in existing power plants, and new or renewed contracts with terms of five years or more, including contracts with power plants located outside of California. A similar performance standard is undergoing rulemaking by the Energy Commission for the Publicly Owned Utilities, and it should be adopted by September 2007.

Because the amended project would create 25 MW more power (net) with the same fuel use, the project's GHG emissions per MWh would be lower than the existing HEPP that the project would replace. Because of the project's modern design, its GHG emissions are expected to be lower than those of other power plants and peaking projects that the project would displace and, thus, would contribute to continued improvement of the California and overall Western Electricity Coordinating Council system's GHG emissions and GHG emission rate average.

The project would lead to a net reduction in GHG emissions across the electricity system that provides energy and capacity to California. Thus, staff believes that the project would result in a cumulative overall reduction in GHG emissions from the state's power plants, would not worsen current conditions, and would thus not result in impacts that are cumulatively significant. GWF Hanford would also

provide other potential GHG benefits by filling nearly all of the expected future roles for gas-fired generation, in a high-renewables, low-GHG system. (Ex. 100, pp. 4.1-75 through 4.1-93)

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The air quality aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

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 Compliance Project Manager (CPM).

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

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

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

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

1. All unpaved roads and disturbed areas in the project and laydown 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 reduced or eliminated during periods of precipitation.

2. No vehicle shall exceed 10 miles per hour on unpaved areas within the project and laydown construction sites.

3. The construction site entrances shall be posted with visible speed limit signs.

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

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

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

7. 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.

8. 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 runoff to roadways.

9. 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.

10. At least the first 500 feet of any public roadway exiting the construction site shall be swept visually clean, using wet sweepers or air filtered dry vacuum sweepers, at least twice daily (or less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or runoff from the construction site is visible on the public roadways.

11. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered or shall be treated with appropriate dust suppressant compounds.

12. 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 in a manner to provide at least two feet of freeboard.

13. 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.

14. Disturbed areas shall be re-vegetated as soon as practical.

The fugitive dust requirements listed in this condition may be replaced with as stringent or more stringent methods as required by SJVAPCD Regulation VIII.

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

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

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

Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the 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 shut-down source. The owner/operator may appeal to the CPM any directive from the AQCMM or Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

Verification: The AQCMP shall include a section detailing how the additional mitigation measures will be accomplished within the time limits specified.

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

1. All diesel-fueled engines used in the construction of the facility shall be fueled only with ultra-low sulfur diesel, which contains no more than 15 ppm sulfur.

2. 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.

3. For off-road construction diesel equipment that has a rating of 100 hp to 750 hp a good faith effort shall be made to find and use equipment that meets the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines as specified in Title 13, California Code of Regulations section 2423(b)(1). This good faith effort shall be documented with signed written correspondence by the appropriate construction contractors along with documented

correspondence with at least two construction equipment rental firms.

4. All construction diesel engines that have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in Title 13, California Code of Regulations section 2423(b)(1). The following exceptions for specific construction equipment items may be made on a case-by-case basis.

   (A) Tier 1 equipment will be allowed on a case-by-case basis only when the project owner has documented that no Tier 2 equipment is available for a particular equipment type that must be used to complete the project's construction. This shall be documented with signed written correspondence by the appropriate construction contractors along with documented correspondence with at least two construction equipment rental firms.

   (B) The construction equipment item is intended to be on site for five days or less.

   (C) Equipment owned by specialty subcontractors may be granted an exemption, for single equipment items on a case-by-case basis, if it can be demonstrated that extreme financial hardship would occur if the specialty subcontractor had to rent replacement equipment, or if it can be demonstrated that a specialized equipment item is not available by rental.

5. All heavy earthmoving equipment and heavy duty construction-related trucks with engines meeting the requirements of (c) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications.

6. All diesel heavy construction equipment shall not remain running at idle for more than five minutes, to the extent practical.

7. Construction equipment will employ electric motors when feasible.

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 all diesel fuel purchase records, (3) a list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained, and (4) any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format at the project owner's discretion.

AQ-SC6 The wet surface air cooler shall have a mist eliminator with a manufacturer guaranteed mist reduction rate of 0.005 percent or less of the water recirculation rate.

The wet surface air cooler spray water shall be tested for total dissolved solids and that data shall be used to determine and report the particulate matter emissions from the wet surface air cooler. The wet surface air cooler spray water shall be tested at least once annually during the anticipated summer operation peak period (July through September).

The wet surface air coolers annual particulate (PM10/PM2.5) emissions shall be limited to 8 lbs/year. The project owner shall estimate annual particulate emissions from the wet surface air cooler using the water quality testing data and estimated spray water use. Compliance with the wet surface air cooler PM10 emission limit shall be demonstrated as follows:

PM10 = cooling water recirculation * total dissolved solids concentration in the blowdown water * design drift rate.

Verification: The project owner shall provide the CPM a copy of the manufacturer guarantee for the mist eliminator 30 days prior to installation of the wet surface air cooler. The project owner shall provide the water quality test results and the wet surface air cooler particulate (PM10/PM2.5) emissions estimates to the CPM as part of the fourth quarter's Quarterly Operational Report (**AQ-7**).

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

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

DISTRICT PRELIMINARY DETERMINATION OF COMPLIANCE CONDITIONS (SJVAPCD 2009a)

EQUIPMENT DESCRIPTION, UNIT C-4140-1-5:
Modification of 47.5 MW nominally rated simple-cycle peak-demand power generating system #1 consisting of a general electric model LM6000 natural gas-fired combustion turbine generator with water spray premised combustion

systems, served by a selective catalytic reduction (SCR) system with ammonia injection and an oxidation catalyst: convert the existing power generating system to a simple-cycle or combined-cycle configuration by (1) removing the existing oxidation catalyst, SCR system and 85' exhaust stack; (2) installing a new once through heat recovery steam generator; (3) installing a new oxidation catalyst, SCR system and 91.5' tall exhaust stack; and (4) installing a 25 mw nominally rated condensing steam turbine generator and its associated lube oil cooler (share with c-4140-2).

EQUIPMENT DESCRIPTION, UNIT C-4140-2-5:
Modification of 47.5 MW nominally rated simple-cycle peak-demand power generating system #2 consisting of a general electric model LM6000 natural gas-fired combustion turbine generator with water spray premised combustion systems, served by a selective catalytic reduction (SCR) system with ammonia injection and an oxidation catalyst: convert the existing power generating system to a simple-cycle or combined-cycle configuration by (1) removing the existing oxidation catalyst, SCR system and 85' exhaust stack; (2) installing a new once through heat recovery steam generator; (3) installing a new oxidation catalyst, SCR system and 91.5' tall exhaust stack; and (4) installing a 25 MW nominally rated condensing steam turbine generator and its associated lube oil cooler (share with c-4140-1).

AQ-1 This Determination of Compliance serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201]

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

AQ-2 Prior to operating with modifications authorized by this Determination of Compliance, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

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

AQ-3 To the extent this Determination of Compliance serves as an Authority to Construct, said Authority to Construct shall not become effective until the California Energy Commission approves the Petition to Amend the project's existing license. [California Environmental Quality Act and District Rule 2201, 5.8.8]

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

AQ-4 The project owner shall not begin actual onsite construction of the equipment authorized by this Determination of Compliance until the lead agency satisfies the requirements of the California Environmental Quality Act (CEQA).

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

AQ-5 Authority to Construct (ATC) C-603-1-8 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Determination of Compliance. [District Rule 2201]

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

AQ-6 District facilities C-603 and C-4140 are the same stationary source for District permitting purposes. [District Rule 2201]

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

AQ-7 The owner/operator of GWF Hanford shall minimize the emissions from the gas turbine to the maximum extent possible during the commissioning period. Conditions **AQ-8** through **AQ-18** shall apply only during the commissioning period as defined below. Unless otherwise indicated, Conditions **AQ-19** through **AQ-87** shall apply after the commissioning period has ended. [District Rule 2201]

Verification: The project owner shall submit to the CPM the monthly commissioning status report by the 10th of each month and the source test data and CTG operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC7**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-8 Commissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the GWF Hanford construction contractor to insure safe and reliable steady state operation of the gas turbines, heat recovery steam generators, steam turbine, and associated electrical delivery systems. [District Rule 2201]

Verification: The monthly commissioning status report shall be submitted to the CPM by the 10th of each month for the previous month, for all months with turbine commissioning activities following the turbine first fire date. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-9 Commissioning period shall commence when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when a gas turbine is first fired, whichever occurs first. The commissioning period shall terminate when the plant has completed initial performance testing and is available for commercial operation. [District Rule 2201]

Verification: The monthly commissioning status report shall be submitted to the CPM by the 10th of each month for the previous month, for all months with turbine commissioning activities following the turbine first fire date. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-10 At the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201]

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

AQ-11 At the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system and the oxidation catalyst shall be installed, adjusted, and operated to minimize emissions from this unit. [District Rule 2201]

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

AQ-12 Coincident with the end of the commission period and the steady-state operation of the SCR system and the oxidation catalyst, NO_X and CO emissions from this unit shall comply with the steady state limits specified in condition **AQ-28** or **AQ-32**. [District Rule 2201]

Verification: The project owner shall submit to the CPM the source test data and CTG CEMs operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC7**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-13 The project owner shall submit a plan to the District at least four weeks prior to the first firing of this unit, describing the procedures to be followed during the commissioning period. 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, the tuning of the combustors, the installation and operation of the SCR systems and the

oxidation catalyst, the installation, calibration, and testing of the NO_X and CO continuous emissions monitors, and any activities requiring the firing of this unit without abatement by the SCR system or oxidation catalyst. [District Rule 2201]

Verification: The project owner shall submit to the CPM for review and the District for approval the commissioning plan at least four weeks prior to the first firing of turbines. The project owner shall notify the CPM and District no later than 30 days prior to the proposed start date of commissioning and expected duration.

AQ-14 Emission rates from this CTG, during the commissioning period, shall not exceed any of the following limits: NO_X (as NO_2) – 52.00 lb/hr; CO – 40.50 lb/hr; VOC (as methane) – 1.20 lb/hr; PM10 – 2.20 lb/hr; or SO_X (as SO_2) – 0.31 lb/hr. [District Rule 2201]

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

AQ-15 During the initial commissioning activities, the project owner shall demonstrate compliance with the NO_X emission limits specified in **AQ-14** through the use of a properly operated and maintained continuous emissions monitor located within the inlet section of the steam generator unit. Upon completion of the initial commission activities and with the installation of the SCR system and oxidation catalyst, the project owner shall demonstrate compliance with the NOx and CO emission limits specified in **AQ-14** through the use of a properly operated and maintained continuous emission monitors and recorders as specified in **AQ-55** and **AQ-57**. The monitored parameters for this unit shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation). [District Rule 2201]

Verification: The project owner shall provide the source test data and CPM CEMs data demonstrating compliance with this condition as part of the monthly commissioning status report (**AQ-7**).

AQ-16 During the initial commission activities, the inlet NOx continuous emission monitor specified in this permit shall be installed, calibrated, and operational prior to the first re-firing of this unit. Upon completion of the initial commission activities and the installation of the SCR system and oxidation catalyst, the exhaust stack NOx and CO continuous emissions monitor specified within this permit shall be installed, calibrated, and operational prior to the first re-firing of this unit. After first re-firing, the detection range of the each continuous emissions monitor shall be adjusted as necessary to accurately measure the resulting range of NO_X and/or CO emission concentrations. [District Rule 2201]

Verification: The project owner shall provide a protocol for the installation, calibration, and testing for the SCR system continuous monitors at least 60 days prior to SCR system use. The project owner shall submit to the CPM and District the SCR system operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-17 The total number of firing hours of this unit without abatement of emissions by the SCR system and the oxidation catalyst shall not exceed 430 hours during the commissioning period. Such operation of this unit without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR system and the oxidation catalyst in place. Upon completion of these activities, the project owner shall provide written notice to the District and the unused balance of the 430 firing hours without abatement shall expire. [District Rule 2201]

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

AQ-18 The total mass emissions of NO_X, CO, VOC, PM10, and SO_X that are emitted during the commissioning period shall accrue towards the consecutive 12 month emission limits specified in **AQ-41**. [District Rule 2201]

Verification: The monthly commissioning status report shall be submitted to the CPM by the 10th of each month for the previous month, for all months with turbine commissioning activities following the turbine first fire date. The project owner shall submit the total mass emissions of NOx, CO, VOC, PM10, and SOx in the 12th month commissioning status report in compliance with this condition.

AQ-19 A selective catalytic reduction (SCR) system and oxidation catalyst shall serve this gas turbine engine. Exhaust ducting may be equipped (if required) with a fresh air inlet blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. The project owner shall submit SCR and oxidation catalyst design details to the District at least 30 days prior to commencement of construction. [District Rule 2201]

Verification: The project owner shall submit to the CPM for review and District for approval final selection, design parameters and details of the SCR and oxidation.

AQ-20 Project owner shall submit continuous emission monitor design, installation, and operational details to the District at least 30 days prior to commencement of construction. [District Rule 2201]

Verification: The project owner shall submit to the CPM for review and the District for approval CEM specification, installation details and operating plan at least 30 days prior to the commencement of construction.

AQ-21 When operating in simple-cycle mode and when operating in combined-cycle mode, the project owner shall submit to the District information correlating the NO_X control system operating parameters to the associated measured NO_X output. The information must be sufficient to allow the District to determine compliance with the NO_X emission limits of this permit when no continuous emission monitoring data for NO_X is available or when the continuous emission monitoring system is not operating properly. [District Rule 4703]

Verification: The project owner/operator shall provide the District with documentation correlating NOx control system operating parameters to the associated measured NOx output. Information must be sufficient to allow NOx emissions to be calculated during times when the CEMS is not functioning properly.

AQ-22 All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]

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

AQ-23 No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

AQ-24 No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20 percent opacity. [District Rule 4101]

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

AQ-25 Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

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

AQ-26 Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5 percent or greater, except for up to three minutes in any hour. [District Rules 2201 and 4101]

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

AQ-27 This CTG shall be fired exclusively on PUC-regulated natural gas with a sulfur content of no greater than 0.24 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and 40 CFR 60.4330(a)(2)]

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

AQ-28 When operating in simple-cycle mode, the steady state emission rates from this CTG, except during startup and shutdown periods, shall not exceed any of the following limits: NO_X (as NO_2) – 4.24 lb/hr and 2.5 ppmvd @ 15 percent O_2; CO – 3.10 lb/hr and 3.0 ppmvd @ 15 percent O_2; VOC (as methane) – 1.20 lb/hr and 2.0 ppmvd @ 15 percent O_2; PM10 – 2.20 lb/hr; or SO_X (as SO_2) – 0.31 lb/hr. NO_X (as NO_2) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201, 4001 and 4703 and 40 CFR 60.4320(a) & (b)]

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

AQ-29 When operating in simple-cycle mode, during start-up, CTG exhaust emission rates shall not exceed any of the following limits: NO_X (as NO_2) – 7.70 lb/event; CO – 7.70 lb/event; VOC (as methane) – 0.70 lb/event; PM10 – 0.13 lb/event; or SO_X (as SO_2) – 0.054 lb/event. [District Rules 2201 and 4703]

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

AQ-30 When operating in simple-cycle mode, during shutdown, CTG exhaust emission rates shall not exceed any of the following limits: NO_X (as NO_2) – 7.70 lb/event; CO – 7.70 lb/event; VOC (as methane) – 0.70 lb/event; PM10 – 0.20 lb/event; or SO_X (as SO_2) – 0.054 lb/event. [District Rules 2201 and 4703]

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

AQ-31 When operating in simple-cycle mode, the ammonia (NH_3) emissions shall not exceed either of the following limits: 6.20 lb/hr or 10 ppmvd @ 15 percent O_2 over a 24 hour rolling average. [District Rules 2201 and 4102]

Verification: The project owner shall provide the estimated daily ammonia concentration and daily ammonia emissions based on the procedures given in this condition and provide the annual source test data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC7**), where the source test data is due in the quarter after the source test report is completed.

AQ-32 When operating in combined-cycle mode, emission rates from this CTG, except during startup and shutdown periods, shall not exceed any of the following limits: NO_X (as NO_2) – 3.40 lb/hr and 2.0 ppmvd @ 15 percent O_2; CO – 3.10 lb/hr and 3.0 ppmvd @ 15 percent O_2; VOC (as methane) – 1.20 lb/hr and 2.0 ppmvd @ 15 percent O_2; PM10 – 2.20 lb/hr; or SO_X (as SO_2) – 0.31 lb/hr. NO_X (as NO_2) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703 and 40 CFR 60.4320(a) & (b)]

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

AQ-33 When operating in combined-cycle mode, during start-up, CTG exhaust emission rates shall not exceed any of the following limits: NO_X (as NO_2) – 6.10 lb/event; CO – 3.00 lb/event; VOC (as methane) – 0.50 lb/event; PM10 – 2.20 lb/event; or SO_X (as SO_2) – 0.31 lb/event. [District Rules 2201 and 4703]

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

AQ-34 When operating in combined-cycle mode, during shutdown, CTG exhaust emission rates shall not exceed any of the following limits: NO_X (as NO_2) – 2.08 lb/event; CO – 1.00 lb/event; VOC (as methane) – 0.20

lb/event; PM10 – 0.73 lb/event; or SO_X (as SO_2) – 0.10 lb/event. [District Rules 2201 and 4703]

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

AQ-35 When operating in combined-cycle mode, the ammonia (NH_3) emissions shall not exceed either of the following limits: 3.10 lb/hr or 5 ppmvd @ 15 percent O_2 over a 24 hour rolling average. [District Rules 2201 and 4102]

Verification: The project owner shall provide the estimated daily ammonia concentration and daily ammonia emissions based on the procedures given in this condition and provide the annual source test data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC7**), where the source test data is due in the quarter after the source test report is completed.

AQ-36 A simple-cycle startup shall be defined as the period of time during which a unit is brought from a shutdown status until the unit meets the steady state simple-cycle lb/hr and ppmvd emission limits specified within this permit. A combined-cycle startup period shall be defined as the period of time beginning with the gas turbine operating in simple-cycle mode and the initial start sequence of the heat recovery steam generator until the unit meets the steady state combined-cycle lb/hr and ppmvd emission limits specified within this permit. A combined-cycle shutdown shall be defined as the period of time during which the initial shutdown sequence is given for the heat recovery steam generator until the unit meets the steady state simple-cycle lb/hr and ppmvd emission limits specified within this permit. A simple-cycle shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703]

Verification: The project owner shall submit to the CPM and District the CTG startup and shutdown operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (**AQ-SC9**).

AQ-37 The duration of each startup or shut down time shall not exceed two hours. Startup and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703]

Verification: The project owner shall submit to the CPM and District the CTG startup and shutdown operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (**AQ-SC7**).

AQ-38 The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703]

Verification: The project owner shall submit to the CPM and District the CTG startup and shutdown operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (**AQ-SC7**).

AQ-39 During all types of operation, including startup and shutdown periods, ammonia injection in to the SCR system shall occur once the minimum temperature at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip. The minimum catalyst face temperature shall be determined during the final design phase of this project and shall be submitted to the District at least 30 days prior to commencement of construction. [District Rule 2201]

Verification: The project owner shall submit the minimum catalyst face temperature determination to the District for approval and CPM for review at least 30 days prior to commencement of construction. The project owner shall maintain the operational ammonia injection records to demonstrate compliance with this condition and shall make those records available for inspection by representatives of the District, ARB, and the Energy Commission.

AQ-40 Maximum daily emissions from the CTG shall not exceed any of the following limits: NOx (as NO_2) – 129.7 lb/day; CO – 103.1 lb/day; VOC – 30.8 lb/day; PM10 – 52.1 lb/day; or SOx (as SO_2) – 7.5 lb/day. [District Rule 2201]

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

AQ-41 Annual emissions from this CTG, calculated on a 12- month rolling basis, shall not exceed any of the following limits: NO_X (as NO_2) – 35,998 lb/year; CO – 20,705 lb/year; VOC – 4,683 lb/year; PM10 – 18,659 lb/year; or SO_X (as SO_2) – 2,649 lb/year. Compliance with the annual NOx and CO emission limits shall be demonstrated using CEM data and the annual VOC, PM10 and SOx emission limits shall be demonstrated using the most recent source test results. [District Rule 2201]

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

AQ-42 Each one hour period shall commence on the hour. Each one hour period in a three hour rolling average will commence on the hour. The three hour average will be compiled from the three most recent one hour

periods. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. [District Rule 2201]

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

AQ-43 Daily emissions will be compiled for a 24-hour period starting and ending at 12-midnight. Each month in the 12 consecutive month rolling average emissions shall commence at the beginning of the first day of the month. The 12 consecutive month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the 12 most recent calendar months. [District Rule 2201]

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

AQ-44 Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15 percent O_2) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15 percent O_2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15 percent O_2. If this option is chosen, the project owner shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the project owner may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the project owner shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102]

Verification: The project owner shall provide the estimated daily ammonia concentration and daily ammonia emissions based on the procedures given in this condition and provide the annual source test data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC7**), where the source test data is due in the quarter after the source test report is completed.

AQ-45 When operating in simple-cycle mode and when operating in combined-cycle mode, source testing to measure startup and shutdown NO_X, CO, and VOC mass emission rates shall be conducted for one of the gas

turbines (C-4140-1 or C-4140-2) within 60 days after the end of the commissioning period. [District Rules 1081 and 2201]

Verification: The results and field data collected during source tests required by this condition shall be submitted to the CPM for review and the District for approval within 60 days of testing.

AQ-46 Source testing to measure startup and shutdown NOx, CO, and VOC mass emission rates shall be conducted for one of the gas turbines (C-4140-1 or C-4140-2) at least once every seven years. CEM relative accuracy shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NO_X and CO startup and shutdown emission limits, then source testing to measure startup and shutdown NO_X and CO mass emission rates shall be conducted at least once every 12 months. If an annual startup and shutdown NOx and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NOx and CO testing frequency shall return to the once every seven years schedule. [District Rules 1081 and 2201]

Verification: The results and field data collected during source tests required by this condition shall be submitted to the CPM for review and the District for approval within 60 days of testing.

AQ-47 When operating in simple-cycle mode, initial source testing to determine compliance with the steady state NOx, CO, VOC and NH_3 emission rates (lb/hr and ppmvd @ 15 percent O_2) and PM10 emission rate (lb/hr) shall be conducted within 60 days after the end of the commissioning period. [District Rules 1081, 2201 and 4703 and 40 CFR 60.4400(a)]

Verification: The results and field data collected during source tests required by this condition shall be submitted to the CPM for review and the District for approval within 60 days of testing.

AQ-48 When operating in combined-cycle mode, initial source testing to determine compliance with the steady state NO_X, CO, VOC and NH_3 emission rates (lb/hr and ppmvd @ 15 percent O_2) and PM10 emission rate (lb/hr) shall be conducted within 60 days after the end of the commissioning period. [District Rules 1081, 2201 and 4703 and 40 CFR 60.4400(a)]

Verification: The results and field data collected during source tests required by this condition shall be submitted to the CPM for review and the District for approval within 60 days of testing.

AQ-49 Source testing to determine compliance with the steady state NO_X, CO, VOC and NH_3 emission rates (lb/hr and ppmvd @ 15 percent O_2) and

PM10 emission rate (lb/hr) shall be conducted at least once every 12 months. [District Rules 1081, 2201 and 4703 and 40 CFR 60.4400(a)]

Verification: The project owner will submit source test reports to the CPM for review and the District for approval within 60 days of the completion of those tests.

AQ-50 Testing to demonstrate compliance with the fuel sulfur content limit shall be conducted weekly. Once eight consecutive weekly tests show compliance, the fuel sulfur content testing frequency may be reduced to once every calendar quarter. If a quarterly test shows a violation of the sulfur content limit, then the weekly testing shall resume and continue until eight consecutive tests show compliance. Once compliance is shown on eight consecutive weekly tests, then testing may return to quarterly. [District Rule 2201 and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)]

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

AQ-51 The following test methods shall be used: NO_X - EPA Method 7E, 20, or ARB Method 100 (ppmv basis), or EPA Method 19 (lb/MMBtu basis); CO - EPA Method 10, 10B, or ARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 and 202 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O_2 - EPA Method 3, 3A, or 20, or ARB Method 100. NOx testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods, as approved by the District, may also be used to address the source testing requirements of this permit. [District Rules 1081, and 4703 and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)]

Verification: The project owner shall submit to the CPM for review and the District for approval the initial source test protocol in compliance with requirements of this condition at least 60 days prior to the initial source test.

AQ-52 Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377. [40 CFR 60.4415(a)(1)(i)]

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

AQ-53 The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_X, CO, and O_2 analyzer during District inspections. The sampling ports shall be located in accordance with the ARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]

Verification: The project owner shall submit to the CPM for review and District for approval a stack test port plan and stack specification at least 60 days before the installation of the stack ports.

AQ-54 Source testing shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 60.4375(b)]

Verification: The project owner shall submit to the CPM for review and the District for approval the initial source test protocol and plan at least 15 days prior to the initial source test. The project owner shall notify the CPM and District no later than 30 days prior to the proposed source test date and time. The project owner will submit source test reports to the CPM for review and the District for approval within 60 days of the completion of those tests.

AQ-55 The CTG shall be equipped with a continuous monitoring system to measure and record fuel consumption. [District Rules 2201 and 4703]

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

AQ-56 The SCR system shall be equipped with a continuous temperature monitoring system to measure and record the temperature at the catalyst face. [District Rule 2201]

Verification: The project owner shall maintain the temperature data at the catalyst face and shall make those records available for review by representatives of the District, ARB, and the Energy Commission.

AQ-57 The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_X, CO and O_2 concentrations. Continuous emissions monitor(s) shall be capable of

monitor emissions during all types of operation, including during startups and shutdowns periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080 and 4703 and 40 CFR 60.4335(b)(1)]

Verification: The project owner shall provide a protocol for the installation, calibration, and testing for the CEMS at least 60 days prior to the operation of CEMS. CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (**AQ-SC7**).

AQ-58 The project owner or operator shall develop and keep on site a quality assurance plan for the NOx CEMS. [40 CFR 4345(e)]

Verification: The project owner shall make the quality assurance plan for the NOx CEMS available for inspection by representatives of the District, ARB and the Energy Commission.

AQ-59 The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)]

Verification: CEMS data summaries in compliance with this condition shall be submitted to the CPM as part of the Quarterly Operation Reports (**AQ-SC7**).

AQ-60 The NO_X, CO and O_2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2,3 and 4 (PS 2, 3 and 4), or 40 CFR 75, Appendix A, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080 and 40 CFR 60.4345(a)]

Verification: The project owner shall provide a protocol for the installation, calibration, and testing for the CEMS at least 60 days prior to the operation of CEMS. CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (**AQ-SC7**).

AQ-61 Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and compliance source testing are both performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080]

Verification: The project owner will submit all RATA reports to the CPM for review and the District for approval within 60 days of the completion of the test.

AQ-62 The owner/operator shall perform a relative accuracy test audit (RATA) for the NO_X, CO and O_2 CEMS as specified by 40 CFR Part 60, Appendix F, 5.11, or 40 CFR 75, Appendix B, at least once every four calendar quarters. The project owner shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. If the RATA test is conducted as specified in 40 CFR Part 75 Appendix B, the RATA shall be conducted on a lb/MMBtu basis. [District Rule 1080 and 40 CFR 60.4345(a)]

Verification: The project owner will submit all RATA reports to the CPM for review and the District for approval within 60 days of the completion of the test.

AQ-63 Results of the CEM system shall be averaged over a one hour period for NO_X emissions and a three hour period for CO emissions using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [District Rule 4703 and 40 CFR 60.4350(a)]

Verification: CEMS data summaries in compliance with this condition shall be submitted to the CPM as part of the Quarterly Operation Reports (**AQ-SC7**).

AQ-64 When operating in simple-cycle mode, excess emissions shall be defined as any operating hour in which the 1-hour rolling average NO_X concentration exceeds an applicable emissions limit. When operating in combined-cycle mode, excess NOx emission shall be defined as any 30 day operating period in which the 30 day rolling average NOx concentration exceeds an applicable emissions limit. A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NO_X or O_2 (or both). [40CFR 60.4350(g), 40 CFR 60.4350(h) and 40 CFR 60.4380(b)(1)]

Verification: CEMS data summaries in compliance with this condition shall be submitted to the CPM as part of the Quarterly Operation Reports (**AQ-SC7**).

AQ-65 For the purpose of determining excess NOx emission, for each unit operating hour in which a valid hourly average is obtained, the data acquisition system and handling system must calculate and record the hourly NOx emission rate in units of ppm, using the appropriate equation from Method 19 of 40 CFR 60, Appendix 1A. For any hour in which the hourly O_2 concentration exceeds 19.0 percent O_2, a diluents cap value of 19.0 percent O_2 may be used in the emission calculations. [40 CFR 60.4350(b) and 60.4350(f)]

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

AQ-66 Excess SOx emissions is each unit operating hour including in the period beginning on the data and hour of any sample for which the fuel sulfur content exceeds the applicable limits listed in this permit and ending on the data and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitoring downtimes for SOx begins when a sample is not taken by its due date. A period of monitor downtime for SOx also begins on the date and hour of a required sample, if invalid results are obtained. A period of SOx monitoring downtime ends on the data and hour of the next valid sample. [40 CFR 60.4385(a) and (c)]

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

AQ-67 The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080]

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

AQ-68 Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080]

Verification: The project owner shall provide the non-polled CEM system data using a District approved alternative method and shall make that data available for inspection by representatives of the ARB and the Energy Commission.

AQ-69 The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080]

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

AQ-70 The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (monitor downtime), (except for zero and span checks), and the nature of system repairs and adjustments; and A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.4375(a) and 60.4395]

Verification: CEMS data summaries in compliance with this condition shall be submitted to the CPM as part of the Quarterly Operation Reports (**AQ-SC7**).

AQ-71 APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080]

Verification: The project owner/operator shall make the site available for inspection by representatives of the District, California Air Resources Board (ARB) and the Energy Commission.

AQ-72 Project owner shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1]

Verification: The project owner shall comply with the notification requirements of the District and submit written copies of these notification reports to the CPM and the APCO as part of the Quarterly Operation Report (**AQ-SC7**).

AQ-73 The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0]

Verification: The project owner shall comply with the notification requirements of the District and submit written copies of these notification reports to the CPM and the APCO as part of the Quarterly Operation Report (**AQ-SC7**).

AQ-74 The project owner shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during

which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 1080, 2201 and 4703 and 40 CFR 60.8(d)]

Verification: The operating log or data acquisition and handling system (DAHS) operating records will be provided as part of the Quarterly Operation Report (**AQ-SC7**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-75 The project owner shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling 12 month period), continuous emission monitor measurements, calculated ammonia slip, calculated NO_X and CO mass emission rates (lb/hr, lb/qtr and lb/12 month rolling period), and VOC, PM10 and SOx mass emission rates (lb/12 month rolling period. [District Rules 2201 and 4703]

Verification: The operating log or data acquisition and handling system (DAHS) operating records will be provided as part of the Quarterly Operation Report (**AQ-SC7**). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-76 All records shall be maintained and retained on-site for a period of at least five years and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4703]

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

AQ-77 The project owner shall comply with the following Acid Rain regulation requirements:

a. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72]

b. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75]

c. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75]

d. The owners and operators of each source and each affected unit at the source shall: (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 73]

e. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 77]

f. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72 and 40 CFR 75]

g. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72]

h. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73]

i. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72]

j. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72]

k. The owners and operators of each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72]

l. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. [40 CFR 77]

m. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) Pay without demand the penalty required, and pay up on demand the interest on that penalty;

and (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77. [40 CFR 77]

n. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72]

o. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. (i) This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 75]

p. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75]

Verification: The project owner shall submit to the CPM and District the CTG annual operating data and NOx emissions limitation information demonstrating compliance with all applicable provisions of 40 CFR 72 as part of the Quarterly Operation Reports (**AQ-SC7**). The project owner shall maintain the documents in accordance with 40 CFR 72.24 on site and made available to district personnel upon request. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-78 Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8011 and 8021]

Verification: The project owner/operator shall make the site available for inspection by representatives of the District, ARB and the Energy Commission to determine if adequate measures to control fugitive dust emissions are in place.

AQ-79 An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

Verification: The project owner shall provide a Dust Control Plan to the APCO at least 60 days prior to the start of any construction activity required in this condition.

AQ-80 An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

Verification: The project owner/operator shall make the site available for inspection by representatives of the District, ARB and the Energy Commission to determine if adequate measures to control fugitive dust emissions are in place.

AQ-81 Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 or Rule 8011. [District Rules 8011 and 8051]

Verification: The project owner/operator shall make the site available for inspection by representatives of the District, ARB and the Energy Commission to determine if adequate measures to control fugitive dust emissions are in place.

AQ-82 Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 or Rule 8011. [District Rules 8011 and 8061]

Verification: The project owner/operator shall make the site available for inspection by representatives of the District, ARB and the Energy Commission to determine if adequate measures to control fugitive dust emissions are in place.

AQ-83 Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20 percent opacity and comply

with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rules 8011 and 8071]

Verification: The project owner/operator shall make the site available for inspection by representatives of the District, ARB and the Energy Commission to determine if adequate measures to control fugitive dust emissions are in place.

AQ-84 Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20 percent opacity. [District Rules 8011 and 8071]

Verification: The project owner/operator shall make the site available for inspection by representatives of the District, ARB and the Energy Commission to determine if adequate measures to control fugitive dust emissions are in place.

AQ-85 On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, project owner shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20 percent opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rules 8011 and 8071]

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

AQ-86 Whenever any portion of the site becomes inactive, the project owner shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

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

AQ-87 Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for

one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]

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

EQUIPMENT DESCRIPTION, UNIT C-4140-3-0:
460 BHP Cummins Model CFP15E-F10 Tier 3 Certified Diesel-Fired Emergency Internal Combustion (IC) Engine Powering a Firewater Pump

AQ-88 This Determination of Compliance serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201]

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

AQ-89 Prior to operating with modifications authorized by this Determination of Compliance, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

Verification: The project owner shall submit to the CPM copies of the Title V operating permit application to modify within five working days of its submittal by the project owner to the District.

AQ-90 To the extent this Determination of Compliance serves as an Authority to Construct, said Authority to Construct shall not become effective until the California Energy Commission approves the Petition to Amend the project's existing license. [California Environmental Quality Act and District Rule 2201, 5.8.8]

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

AQ-91 The project owner shall not begin actual onsite construction of the equipment authorized by this Determination of Compliance until the lead agency satisfies the requirements of the California Environmental Quality Act (CEQA).

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

AQ-92 Authority to Construct (ATC) C-603-1-8 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Determination of Compliance. [District Rule 2201]

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

AQ-93 District facilities C-603 and C-4140 are the same stationary source for District permitting purposes. [District Rule 2201]

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

AQ-94 No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

AQ-95 No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20 percent opacity. [District Rule 4101]

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

AQ-96 Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

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

AQ-97 Emissions from this IC engine shall not exceed any of the following limits: 2.66 g-NO_X/bhp-hr, 0.671 g-CO/bhp-hr, or 0.086 g-VOC/bhp-hr. [District Rule 2201, 40 CFR 60.4205(c) and 13 CCR 2423 and 17 CCR 93115]

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

AQ-98 Emissions from this IC engine shall not exceed 0.078 g-PM10/bhp-hr based on U.S.EPA certification using ISO 8178 test procedure. [District Rules 2201, 40 CFR 60.4205(c) and 4102 and 13 CCR 2423 and 17 CCR 93115]

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

AQ-99 Only ARB certified diesel fuel containing not more than 0.0015 percent sulfur by weight is to be used. [District Rules 2201 and 4801, 40 CFR 60.4207 and 17 CCR 93115]

Verification: The project owner shall maintain delivered diesel fuel sulfur content records and make those records available for inspection by representatives of the District, ARB, and the Energy Commission.

AQ-100 This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 40 CFR 60.4209(a)]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB, and the Energy Commission. The project owner shall submit elapsed time in hours in the Quarterly Operation Report (**AQ-SC7).**

AQ-101 This engine shall be equipped with either a positive crankcase ventilation (PCV) system which recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90 percent control efficiency. [District Rule 2201]

Verification: The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90 percent control efficiency.

AQ-102 The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]

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

AQ-103 This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [40 CFR 60.4211(a)]

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

AQ-104 During periods of operation for maintenance, testing, and required regulatory purposes, the project owner shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [40CFR 60.4211(a)]

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

AQ-105 This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 40 CFR 60.4211 (e) and 17 CCR 93115]

Verification: The project owner shall submit to the CPM and District the emergency engine operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (**AQ-SC7**).

AQ-106 An emergency situation is an unscheduled event caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the project owner. [District Rule 4702]

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

AQ-107 The project owner shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, emergency fire fighting, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 40 CFR 60.4214 (b) and 17 CCR 93115]

Verification: The project owner shall make the records required under the condition available for inspection by representatives of the District, ARB and the Energy Commission. The project owner shall submit the records required under this condition in the Quarterly Operation Report (**AQ-SC7**).

AQ-108 All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

Verification: The project owner shall maintain all the records on site and made available to district personnel upon request. The project owner shall make

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

ACRONYMS

AADT	Annual Average Daily Trips
AAQS	Ambient Air Quality Standard
ACC	Air Cooled Condenser
AERMOD	ARMS/EPA Regulatory Model
AER	Actual Emission Reduction
AFC	Application for Certification
APCD	Air Pollution Control District (SJVAPCD)
APCO	Air Pollution Control Officer
AQCMM	Air Quality Construction Mitigation Manager
AQCMP	Air Quality Construction Mitigation Plan
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ATC	Authority to Construct
BACM	Best Available Control Measures
BACT	Best Available Control Technology
bhp	brake horsepower
Btu	British thermal unit
CCR	California Code of Regulation
CEC	California Energy Commission (or Energy Commission)
CEMS	Continuous Emission Monitoring System
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO_2	Carbon Dioxide
COC	Conditions of Certification
CPM	(CEC) Compliance Project Manager
CTG	Combustion Turbine Generator
dscf	Dry Standard Cubic Feet
EIR	Environmental Impact Report
EMFAC	Emission Factors
ERC	Emission Reduction Credit
FDOC	Final Determination Of Compliance
GE	General Electric
GPM	Gallon per minute
gr	Grains (1 gr $\cong$ 0.0648 grams, 7000 gr = 1 pound)
GWF Hanford	GWF Hanford Combined-cycle Power Plant
HAP	Hazardous Air Pollutants

HEP	Hanford Energy Park
HEPP	Hanford Energy Peaker Plant
H_2S	Hydrogen Sulfide
hp	Horsepower
HSC	Health and Safety Code
ICE	Internal Combustion Engine
ISC	Industrial Source Complex
ISCST3	Industrial Source Complex Short Term, version 3
kW	Kilowatts (1,000 watts)
lbs	Pounds
LORS	Laws, Ordinances, Regulations and Standards
MCR	Monthly Compliance Report
µg	Microgram
$\mu g/m^3$	Microgram per cubic meter
mg/m^3	Milligrams per cubic meter
MMBtu	Million British Thermal units
MW	Megawatts (1,000,000 Watts)
NAAQS	National Ambient Air Quality Standard
NH_3	Ammonia
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_3	Nitrates
NOx	Oxides of Nitrogen or Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
O_3	Ozone
OLM	Ozone Limiting Method
OTSG	Once Through Steam Generator
PDOC	Preliminary Determination Of Compliance
PM	Particulate Matter
PM10	Particulate Matter less than 10 microns in diameter
PM2.5	Particulate Matter less than 2.5 microns in diameter
ppm	Parts Per Million
ppmv	Parts Per Million by Volume
ppmvd	Parts Per Million by Volume, Dry
PSA	Preliminary Staff Assessment (this document)
PSD	Prevention of Significant Deterioration
PTO	Permit to Operate

ROG	Reactive Organic Gas
RPDOC	Revised Preliminary Determination of Compliance
scf	Standard Cubic Feet
SCR	Selective Catalytic Reduction
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	Sulfur Dioxide
SO_3	Sulfate
SOx	Oxides of Sulfur
SPPE	Small Power Plant Exemption
STG	Steam Turbine Generator
TDS	Total Dissolved Solid
TFV	Thresholds Friction Velocity
TPA	Transportation Planning Agencies
tpy	Tons per year
U.S.EPA	United States Environmental Protection Agency
VDE	Visible Dust Emission
VOC	Volatile Organic Compounds
WSAC	Wet Surface Air Cooler

B. PUBLIC HEALTH

Staff's witness, Dr. Alvin J. Greenberg, testified that staff reviewed the health risk assessment prepared by the Applicant in its Petition to Amend, and conducted an independent screening assessment. It found that the predicted cancer risk and chronic and acute health impacts were below the levels considered to be significant. According to staff's independent analysis, the maximum cancer risk would be approximately 5 in 1 million during construction, and less than 1 in 1 million during operation. (Ex. 100, pp. 4.6-3 – 4.6-4.) Compared with a lifetime cancer risk for the average person of 250,000 in one million (2001 Decision, p. 122) this is not a significant increase in cancer risk.

Staff also conducted a cumulative impact analysis, taking into specific account the Hanford LP cogeneration plant, also owned by GWF Energy, located immediately adjacent to the HEPP, which is the only project within 1 mile of the HEPP that fits the criteria for potential cumulative impacts. Based on its review of the Health Risk Assessment provided by the applicant, Staff concluded "that no significant cumulative risk or hazard would be posed by the simultaneous operation of the proposed power plant and the present power plant." (Ex. 100, p. 4.6-7.)

FINDINGS AND CONCLUSIONS

Based upon the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The Public Health aspects of the proposed project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

The 2001 Decision did not impose any conditions under this topic, and staff determined that with the continued compliance with all applicable LORS, no new conditions are needed in the area of public health.

C. HAZARDOUS MATERIALS MANAGEMENT

Staff determined that, with the continued compliance with the conditions of compliance in the present HEPP license, the changes to the HEPP proposed in the applicant's Petition to Amend have no potential to create significant impacts in the area of Hazardous Materials Management. No new analysis was needed because staff's previous analysis and conditions of certification is still valid for the amended project, and no new LORS addressing Hazardous Materials Management were implemented since the 2001 Decision.

FINDINGS AND CONCLUSIONS

Based upon the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.

2. The existing Conditions of Certification HAZ-1 and HAZ-2 below will ensure that the Hanford Combined-Cycle Power Plant is designed, constructed and operated both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.

3. The Hazardous Materials Management aspects of the proposed project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

HAZ-1 The project owner shall not use any hazardous material in reportable quantities except those identified by type and quantity in the Application for Emergency Permit unless approved by the CPM.

Verification: The project owner shall provide in the Annual Compliance Report a list of hazardous materials used at the facility in reportable quantities.

HAZ-2 The project owner shall submit both a Business Plan and a Risk Management Plan to the CPM for review and comment, and shall also submit these plans and/or procedures to the County Fire Department for approval.

Verification: At least 30 days (or a CPM-approved alternative time frame) prior to the initial delivery of any hazardous materials in reportable quantities to the facility, the project owner shall the Business and Risk Management Plan to the CPM for review and comment. At the same time, the project owner shall submit these plans to the County Fire Department for approval. The project owner shall also submit evidence to the CPM that the County Fire Department Approved of these plans, when available.

D. WORKER SAFETY/FIRE PROTECTION

Similar to Hazardous Materials Management above, Staff determined that the amended project will have no effect on the potential to create significant impacts in the areas of worker safety and fire protection, and will continue to comply with all LORS applicable to these areas.

FINDINGS AND CONCLUSIONS

Based upon the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.

2. The existing Condition of Certification below will ensure that the amended project is designed, constructed and operated both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.

3. The Worker Safety and Fire Protection aspects of the proposed project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

WORKER SAFETY-1 The project owner must comply with all requirements in Title 8 of the California Code of Regulations, beginning with Part 450 (8 CCR Part 450 et seq).

Verification: The project owner shall submit to the CPM a letter attesting to compliance with the above and shall report any violations to the CPM.

VI. ENVIRONMENTAL ASSESSMENT

A. BIOLOGICAL RESOURCES

Staff witness Joy Nishida testified that the amended project would comply with all LORS and "would not have a significant effect on sensitive species or their habitat near the project providing that the proposed Biological Resources Conditions of Certification below are adopted." (Ex. 100, p. 4.2-10.) She recommends eliminating seven Conditions of Certification and making changes to five other Conditions to reflect the proposed minor project changes and remain relevant to the proposed GWF Hanford project. With the revised Conditions, she finds that the amended project would not cause any significant effects on biological resources. (Ex. 100, p. 4.2-10.)

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Biological Resources aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

BIO-1 through BIO-6, Deleted.

BIO-7 Survey: A minimum of 5 days and no more than 30 days prior to the beginning of site mobilization, the project site, the natural gas pipeline route, and the electrical transmission line route must be surveyed by a Designated Biologist in accordance with US Fish and Wildlife Service (USFWS) and California Department of Fish & Game (CDFG) protocol for

nesting raptors and the sensitive species listed in **BIOLOGICAL RESOURCES Table 1** of this GWF Hanford Combined-Cycle Power Plant Biological Resources Staff Analysis.

Verification: After the survey and prior to site mobilization, documentation of the survey method and mapped results will be submitted to the CPM.

BIO-8 Deleted

BIO-9 Designated Biologist: Site mobilization shall not begin until a staff-approved Designated Biologist is available to be onsite.

Protocol: The Designated Biologist must meet the following minimum qualifications:

- A Bachelor's Degree in biological sciences, zoology, botany, ecology, or a closely related field;
- At least 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;
- At least one year of field experience with biological resources found in or near the project area; and
- An ability to demonstrate to the satisfaction of the Staff the appropriate education experience, and knowledge of the local/regional biological resources for the tasks that must be addressed during project construction.

If staff determines the proposed Designated Biologist to be unacceptable, the project owner shall submit another individual's name and qualifications for consideration. If the approved Designated Biologist needs to be replaced, the project owner shall obtain approval of a new Designated Biologist by submitting to the CPM the name, qualifications, address, and telephone number of the proposed replacement. No disturbance will be allowed in any designated sensitive areas until the CPM approves a new Designated Biologist and the new biologist is onsite.

Verification: Prior to the start of any site mobilization activities the project owner shall submit to the CPM for approval, the name, qualifications, address and telephone number of the individual selected by the project owner as the Designated Biologist. If a Designated Biologist is replaced, the information on the proposed replacement, as specified in the condition, must be submitted in writing prior to the termination or release of the preceding Designated Biologist.

BIO-10 Designated Biologist Duties: The CPM approved Designated Biologist shall perform the following during project construction:

- Advise the Applicant's Construction Manager on the implementation of the Biological Resources Conditions of Certification;
- Access the site and linear rights-of-way at appropriate times prior to and during construction and halt construction when necessary to protect a sensitive biological resource;
- Supervise or conduct mitigation, monitoring and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as, wetlands, vernal pools, riparian habitat, and preserves, and any location where special-status species or their habitat may exist onsite, adjacent to the site, and along rights-of-way for linear facilities;
- Thoroughly inspect all construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the USFWS and CDFG have been consulted; and
- Notify the project owner and the CPM of non-compliance with any Biological Resources Conditions of Certification.

Verification: During project construction, the Designated Biologist shall maintain written records of the tasks described above, and summaries of these records shall be submitted along with the Monthly Compliance Reports to the CPM.

If the Designated Biologist halts construction, the action will be reported immediately to the CPM along with the recommended implementation actions to resolve the situation or decide that additional consultation is needed. Throughout construction, the Designated Biologist shall report if sensitive biological resources are found or impacted.

BIO-11 Biological Resources Mitigation Implementation and Monitoring Plan: The Applicant shall submit to the CPM for review and approval a copy of the final Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and shall implement the measures identified in the plan. Any changes made to the adopted BRMIMP must be made in consultation with the CPM and USFWS.

Protocol: The final BRMIMP shall identify:

- All biological resources mitigation, monitoring, and compliance conditions included in the Energy Commission's Final Decision;
- The reduction of risk of large bird electrocution by electric transmission lines and any interconnection between structures, substations and transmission lines by implementing construction

methods identified in “Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006” (APLIC 2006);

- All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure;
- All mitigation measures identified through consultation with the USFWS and CDFG;
- All required mitigation measures/avoidance strategies for each sensitive biological resource;
- Required habitat compensation strategy, including provisions for acquisition, enhancement, and management for any temporary and permanent loss of habitat for sensitive biological resources;
- All locations, on a map of suitable scale, of laydown areas and areas requiring temporary protection and avoidance during construction;
- Performance standards to be used to help decide if/when proposed mitigation is or is not successful;
- All performance standards and remedial measures to be implemented if performance standards are not met; and
- A process for proposing plan modifications to the CPM and appropriate agencies for review and approval.

Verification: Prior to the start of any project-related ground disturbance activities, the project owner shall provide the CPM with the final version of the BRMIMP, and the CPM will determine the plan’s acceptability. All modifications to the approved BRMIMP must be made only after consultation with the CPM, USFWS, and CDFG. The project owner shall notify the CPM before implementing any CPM approved modifications to the BRMIMP.

Within 30 days after completion of project construction, the applicant 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 which mitigation and monitoring plan items are still outstanding.

BIO-12 Habitat Compensation: To compensate for temporary, permanent, and incremental impacts to sensitive species habitat, the project owner will provide suitable habitat compensation funds at a ratio of 1:1 for all permanent disturbance and a ratio of 0.2:1 for all temporary disturbance to habitats at an amount of $2,375.00 per acre-credit and a $5,000.00 up front fee per transaction.

Verification: To account for inflation and other anticipated changes in habitat compensation costs, the project owner will consult with the Kern Water Bank (KWB) and the CPM prior to the start of any project related ground disturbance,

and KWB will identify the final cost per acre and total compensation amount. Once the final compensatory mitigation amount has been determined and prior to the start of any project related ground disturbance activities, the project owner will provide a Conservation Credit Certificate to the CPM that all habitat compensation funds (including the endowment and transaction fee) have been provided to the KWB.

Within 90 days after completion of project related construction, the project owner shall provide a final tabulation of temporary and/or permanent acreage impacts. The project owner will also provide an analysis of the amount of any additional habitat disturbance. The CPM will notify the project owner of any additional funds required to compensate for any additional habitat disturbances at the adjusted market value at the time of construction to acquire additional credits if necessary.

B. SOIL AND WATER RESOURCES

Staff's testimony of Mark Lindley concludes that the proposed amendment will continue to comply with all applicable LORS and will not cause any significant environmental effects. (Ex. 100, pp. 4.8-1 – 4.8-32.) The amended project includes use of an air-cooled condenser as the means of condensing the steam exhausting the steam turbine-generator, thus saving a considerable amount of water compared to power plants that use traditional wet cooling towers.

The amended project would also include use of a wet-surface air cooler and other technologies that would require an additional 8 acre-feet per year of fresh water above presently permitted volumes in order to run at full power operations throughout the year. This increased amount is the equivalent of the use of 20 average households per year.[8] Though this is a relatively small amount of water, it is still subject to the Commission's fresh water policy, which disallows increased fresh water use unless doing so would be economically infeasible or environmentally undesirable, as well as subject to other requirements of the State Water Resources Control Board and under the state's Water Code. We agree with staff's conclusion that no economically feasible alternative is available to the project owner to supply the additional 8 acre-feet per year, and that the project as amended would comply with all LORS related to fresh water supplies. We also note that the project owner has banked a surplus of more than 9,000 acre-feet under its present mitigation requirements, and agree with staff's conclusion that approval of the amended project will not result in significant individual or cumulative impacts to water resources.

The applicant has prepared a draft Drainage, Erosion, and Sediment Control Plan (DESCP) that included a list of erosion and sediment control Best

[8] According to the American Water Works Association, the average American household uses 127,400 gallons per year.

Management Practices (BMPs) that would be implemented before, during, and post-construction. Staff believes that proper application of these BMPs will be sufficient to avoid significant impacts related to erosion and sediment control, and proposed two new Conditions of Compliance requiring an approved final DESCP and a Storm Water Pollution Prevention Permit prior to commencing operations of the amended facility. (Ex. 100, p. 4.8-15 – 4-8.16.) A Storm Water Pollution Prevention Plan (SWPPP) incorporating the provisions of the City of Hanford's National Pollution Discharge Elimination System (NPDES) permit will reduce all potential impacts from stormwater runoff during the plant's operation to less than significant levels. (Ex. 100, p. 4.8-16 – 4.8-17.)

Staff recommends various revisions to the Conditions of Certification to conform to the changes in the project's physical layout, and to more closely reflect the project's future water use and storm water drainage. Conditions **SOIL & WATER-1** through **5** are replaced by new conditions, while conditions **SOIL & WATER 6** through **7** are revised (Ex. 100, p. 4.8-24 – 4.8-31).

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the amended project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Soil and Water Resources aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

SOIL & WATER-1 The project owner shall comply with the requirements of the General National Pollutant Discharge Elimination System (NPDES) permit for discharges of storm water associated with construction activity. The project owner shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the construction of the entire GWF Hanford Combined Cycle Power Plant Project (GWF Hanford).

Verification: The project owner shall submit to the compliance project manager (CPM) a copy of the construction SWPPP prior to site mobilization and retain a copy on site. The project owner shall submit a copy of the construction SWPPP to the Central Valley Regional Water Quality Control Board (RWQCB) for review and comment. The project owner shall submit copies to the CPM of all correspondence between the project owner and the RWQCB regarding the General NPDES permit for the discharge of storm water associated with construction activities within 10 days of its receipt (when the project owner receives correspondence from the RWQCB) or within 10 days of its mailing (when the project owner sends correspondence to the RWQCB). This information shall include copies of the Notice of Intent and the Notice of Termination sent to the State Water Resources Control Board for the project construction.

SOIL & WATER-2 Prior to site mobilization, the project owner shall obtain CPM approval for a site-specific DESCP that ensures protection of water quality and soil resources of the project site and all linear facilities for both the construction and operation phases of the project. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in offsite flooding potential, meet local requirements, and identify all monitoring and maintenance activities. To prevent stormwater and soil contamination, chemical and petroleum based palliatives shall not be used for dust control. The plan should include a vault based BMP targeting hydrocarbons and metals for the GWF Hanford stormdrain prior to discharge into the retention basin. Monitoring activities shall include routine measurement of the volume of accumulated sediment in the stormwater retention basin. Maintenance activities must include removal of accumulated sediment from the retention basin when an average depth of 0.5 feet of sediment has accumulated in the retention basin. The plan shall be consistent with the grading and drainage plan as required by Condition of Certification CIVIL-1. The DESCP shall contain the following elements. All maps shall be presented at a legible scale.

Vicinity Map – A map shall be provided indicating the location of all project elements with depictions of all significant geographic

features to include watercourses, washes, irrigation and drainage canals, and sensitive areas.

Site Delineation – The site and all project elements shall be delineated showing boundary lines of all construction areas and the location of all existing and proposed structures, pipelines, roads, and drainage facilities.

Watercourses and Critical Areas – The DESCP shall show the location of all nearby watercourses including washes, irrigation and drainage canals, and drainage ditches, and shall indicate the proximity of those features to the construction site.

Drainage – The DESCP shall include hydrologic calculations for onsite areas and offsite areas that drain to the site; include maps showing the drainage area boundaries and sizes in acres, topography and typical overland flow directions, and show all existing, interim, and proposed drainage infrastructure and their intended direction of flow. Provide hydraulic calculations to support the selection and sizing of the drainage network, retention facilities and best management practices (BMPs). Spot elevations shall be required where relatively flat conditions exist. The spot elevations and contours shall be extended off site for a minimum distance of 100 feet in flat terrain or to the limits of the offsite drainage basins.

Clearing and Grading – The plan 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 extent of all proposed grading as shown by contours, cross sections, cut/fill depths or other means. The locations of any disposal areas, fills, or other special features shall also be shown. Existing and proposed topography tying in proposed contours with existing topography shall be illustrated. The DESCP shall include a statement of the quantities of material excavated at the site, whether such excavations or fill is temporary or permanent, and the amount of such material to be imported or exported or a statement explaining that there would be no clearing and/or grading conducted for each element of the project. Areas of no disturbance shall be properly identified and delineated on the plan maps.

Project Schedule – The DESCP shall identify on the topographic site map the location of the site-specific BMPs to be employed during each phase of construction (initial grading, project element excavation and construction, and final grading/stabilization). Separate BMP implementation schedules shall be provided for each project element for each phase of construction.

Best Management Practices – The DESCP shall show the location, timing, and maintenance schedule of all erosion- and sediment-control BMPs to be used prior to initial grading, during project

element excavation and construction, during final grading/stabilization, and after construction. BMPs shall include measures designed to control dust and stabilize construction access roads and entrances. The maintenance schedule shall include post-construction maintenance of treatment-control BMPs applied to disturbed areas following construction.

Erosion Control Drawings – The erosion-control drawings and narrative shall be designed, stamped and sealed by a professional engineer or erosion-control specialist.

Verification: No later than 90 days prior to start of site mobilization, the project owner shall submit a copy of the DESCP to Kings County and the CPM for review and comment. A copy of the comments from Kings County shall be submitted to the CPM no later than 60 days prior to the start of site mobilization for review and approval. The CPM shall consider comments received from Kings County. During construction, the project owner shall provide an analysis in the monthly compliance report on the effectiveness of the drainage-, erosion- and sediment-control measures and the results of monitoring and maintenance activities. Once operational, the project owner shall provide in the annual compliance report information on the results of stormwater BMP monitoring and maintenance activities.

SOIL & WATER-3 During project operation the project will not discharge any stormwater offsite. All stormwater shall be collected and directed to the onsite retention basin. The project owner shall submit a Notice of Non-Applicability (NONA) to the RWQCB to apply for an exemption to general NPDES permit. If conditions at the site change and the project will discharge stormwater from the site, the project owner shall 1) comply with the requirements of the general NPDES permit for discharges of storm water associated with industrial activity, 2) develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the operation of the site, and 3) discharge solely stormwater from the site.

Verification: Prior to commencing operations, the project owner shall submit a letter from the RWQCB indicating that there is no requirement for a general NPDES permit for discharges of stormwater associated with industrial activity to the CPM. At least 30 days prior to the discharge of stormwater during commercial operation, the project owner shall submit copies to the CPM of the operational storm water pollution prevention plan for the GWF Hanford site. Within 10 days of its mailing or receipt, the project owner shall submit to the CPM any correspondence between the project owner and the RWQCB about the general NPDES permit for discharge of storm water associated with industrial activity. This information shall include a copy of the notice of intent sent by the project owner to the State Water Resources Control Board and the notice of termination.

SOIL & WATER-4 The GWF Hanford shall not use more than 111 acre feet of groundwater in any one year. GWF Hanford will mitigate all use of groundwater at a ratio of 1.76:1 (banked surface water to pumped groundwater). The Water Banking and Mitigation Agreement with Kings County Water District manages the GWF Hanford water banking account. The account has a balance of approximately 9,031 acre-feet. The Water Mitigation Plan shall include:

1. The Water Banking and Mitigation Agreement between Kings County Water District and GWF Hanford that has banked surface water to mitigate future groundwater pumping at GWF Hanford; and,

2. The annual water usage by GWF Hanford supplied by the Hanford LP water supply well and any backup water supplied by the City of Hanford. The total annual usage will be mitigated at a ratio of 1.76:1 and the mitigated usage will be deducted from the GWF Hanford water banking account balance. A summary of GWF Hanford water banking account activity along with the remaining account balance will be submitted as part of the Annual Compliance Report to the CPM.

In addition, back-up water provided by the City of Hanford shall only be used when groundwater provided by the existing groundwater supply system at GWF Hanford is not available due to unplanned outages or maintenance. All potable water provided by the City of Hanford for back-up water supply shall be subject to the same limits on annual use and the mitigation requirements described above for groundwater pumped at the site.

Verification: The project owner shall submit the complete Water Mitigation Plan at least 30 days prior the start of operation. The Water Mitigation Plan will discuss all terms and conditions and all parties involved in the agreement, and contain copies of all agreements executed as part of the Water Mitigation Plan. Any changes made to the Water Mitigation Plan shall be provided to the CPM for review at least 14 days prior to the effective date of the proposed change. The Water Mitigation Plan shall remain in effect for the life of the project, and the project will not operate without the Water Mitigation Plan in effect.

SOIL & WATER-5 The project owner shall monitor the use of groundwater at the site and report total usage to the CPM. Prior to the use of groundwater during operation by the GWF Hanford, 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 volumes of water supplied to the GWF Hanford from each water source. Those metering devices shall be operational for the life of the project. The project owner shall monitor the amount of surface water

banked with the Kings County Water District for GWF Hanford under the Water Mitigation Agreement.

The project owner shall prepare an annual Water Use Summary, which will include the monthly range and monthly average of daily non-potable water usage in gallons per day, and total water used by the project on a monthly and annual basis in acre-feet. The Water Use Summary shall include the annual surface water banked with the Kings County Water District on behalf of GWF and identify the quantity of water banked to offset water use at GWF Hanford and the Hanford LP. All communications with the Kings County Water District shall reflect the 1.76:1 mitigation ratio for water use at GWF Hanford. Potable water use on-site shall be recorded on a monthly basis. For subsequent years, the annual Water Use Summary shall also include the yearly range and yearly average water use and water banked by the project. The annual summary shall be submitted to the CPM as part of the annual compliance report.

Verification: At least 60 days prior to commercial operation of the GWF Hanford, the project owner shall submit to the CPM conclusive proof that metering devices have been installed and are operational on the groundwater supply and distribution system. If there is a significant change in the water supply source(s), the new source(s) supply and distribution system shall also have metering devices. Any water used from the new source(s) shall be incorporated into the annual Water Use Summary within 30 days of hook-up. The project owner will document total groundwater usage and report groundwater usage to the CPM. The project owner will document total surface water banked with Kings County Water District and report surface water banking to the CPM. The project owner will report all disruptions to the groundwater supply, the water treatment process, the volume of backup water used, and the total annual groundwater use for the year, and the two years prior, in the annual compliance report.

If there is a significant change in the water supply source(s), the new source(s) supply and distribution system shall also have metering devices. Any water used from the new source(s) shall be incorporated into the annual Water Use Summary within 30 days of hook-up.

The project owner shall submit a Water Use Summary to the CPM in the annual compliance report. The summary report shall distinguish between recorded water use of groundwater and backup water. The project owner shall provide a report on the servicing, testing and calibration of the metering devices in the annual compliance report.

SOIL & WATER-6 The project owner shall obtain a valid Industrial Discharge Permit prepared in accordance with the City of Hanford's Pretreatment Program for the project's wastewater discharge to the City's POTW. The project will not operate without a valid permit in place.

Verification: The Applicant will obtain and provide a copy of final Industrial Discharge Permit issued by the City of Hanford for the project's wastewater discharge to the POTW to the CPM at least 14 days prior to the POTW receiving any wastewater discharge from the project. Any change to either the chemical or physical parameters or volume of the discharge permitted by the Industrial Discharge will be noticed in writing to both the CPM and the City of Hanford during both construction and/or operation. The project owner will notify the Energy Commission in writing of any changes to the Industrial Discharge Permit, either instituted by the project owner or the City of Hanford, including any permit renewal. The project owner will provide the CPM with the annual monitoring report summary required by the Industrial Discharge Permit, and will fully explain any violations, exceedances, enforcement actions, and remedial actions.

SOIL & WATER-7 All straw wattles and straw bales for BMP's will be certified weed free. All seed mixtures will be approved by the CPM before application.

Verification: The project owner will provide to the CPM evidence of weed free certification for all straw wattles and bales. The project owner will obtain CPM approval for all seed mixes prior to application.

C. CULTURAL RESOURCES

The Staff's testimony of Beverly E. Bastian stated that although past surveys did not identify any cultural resources that would be affected by the amended project, sufficient documentation does not exist to conclude that the amended project has no potential to create a significant impact to cultural resources. Therefore, to assure that any unexpected cultural resources discovered during construction of the project are properly handled, Staff recommends that the previously adopted Conditions of Certification be replaced to reflect current criteria for cultural resources-related Conditions of Certification. With those Conditions, the project will comply with all applicable LORS and will not cause significant environmental effects to cultural resources. (Ex. 100, p. 4.3-1 – 4.3-15.)

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Cultural Resources aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

CUL-1 Prior to the start of ground disturbance (includes "preconstruction site mobilization," "construction ground disturbance," and "construction grading, boring and trenching," as defined in the General Conditions for this project), the project owner shall obtain the services of a Cultural Resources Specialist (CRS) and one or more alternate CRSs, if alternates are needed. The CRS shall manage all monitoring, mitigation, curation, and reporting activities 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 for listing in the California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be affected in an unanticipated manner. No ground disturbance shall occur prior to Compliance Project Manager (CPM) approval of the CRS and alternates, unless such activities are specifically approved by the CPM. Approval of a CRS may be denied or revoked for reasons including but not limited to non-compliance on this or other Energy Commission projects.

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 Title 36, Code of Federal Regulations, part 61 (36 C.F.R., 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;
2. At least three years of archaeological or historical, as appropriate (per nature of predominant cultural resources on the project site), resource mitigation and field experience in California; and
3. At least one year of experience in a decision-making capacity on cultural resources projects in California and the appropriate training and experience to knowledgably make recommendations regarding the significance of cultural resources.

The resumes of the CRS and alternate CRS shall include the names and telephone numbers of contacts familiar with the work of the CRS/alternate CRS on referenced projects and demonstrate to the satisfaction of the CPM that the CRS/alternate CRS has the appropriate training and experience to implement effectively the Conditions.

CULTURAL RESOURCES MONITORS

CRMs shall have the following qualifications:

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

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

CULTURAL RESOURCES TECHNICAL SPECIALISTS

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

Verification:

1. At least 45 days prior to the start of ground disturbance, the project owner shall submit the resume for the CRS, and alternate(s) 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 resources documents, field notes, photographs, and other cultural resources materials generated by the project. If there is no alternate CRS in place to conduct the duties of the CRS, a previously approved monitor may serve in place of a CRS so that project-related ground disturbance may continue up to a maximum of 3 days without a CRS. If cultural resources are discovered then ground disturbance will remain halted until there is a CRS or alternate CRS to make a recommendation regarding significance.
3. At least 20 days prior to ground disturbance, the CRS shall provide a letter naming anticipated CRMs for the project and stating that the identified CRMs meet the minimum qualifications for cultural resources monitoring required by this Condition.
4. At least 5 days prior to additional CRMs beginning on-site duties during the project, the CRS shall provide additional letters to the CPM identifying the CRMs and attesting to their qualifications.
5. At least 10 days prior to any technical specialists beginning tasks, the resume(s) of the specialists shall be provided to the CPM for review and approval.
6. At least 10 days prior to the start of ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available for onsite work and is prepared to implement the cultural resources conditions.

CUL-2 Prior to the start of ground disturbance, if the CRS has not previously worked on the project, the project owner shall provide the CRS with copies of the AFC, data responses, Petition to Amend, and confidential cultural resources reports for the original project and the amended project. The project owner shall also provide the CRS and the CPM with maps and drawings showing the footprints of the power plant, all linear facility routes, all access roads, and all laydown areas. Maps shall include the appropriate USGS quadrangles and a map at an appropriate scale (e.g., 1:2000 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 map submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities. No ground disturbance shall occur prior to CPM approval of maps and drawings, unless such activities are specifically approved by the CPM.

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

Weekly, until ground disturbance is completed, the project construction manager shall provide to the CRS and CPM a schedule of project activities for the following week, including the identification of area(s) where ground disturbance will occur during that week.

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

Verification:

1. At least 40 days prior to the start of ground disturbance, the project owner shall provide the AFC, data responses, Petition to Amend, and confidential cultural resources reports for the original project and the amended project to the CRS, if needed, and the subject maps and drawings to the CRS and CPM. The CPM will review submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.
2. At least 15 days prior to the start of ground disturbance, if there are changes to any project-related footprint, the project owner shall provide revised maps and drawings for the changes to the CRS and CPM.
3. At least 15 days prior to the start of each phase of a phased project, the project owner shall submit the appropriate maps and drawings, if not previously provided, to the CRS and CPM.
4. Weekly, during ground disturbance, a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, e-mail, or fax.

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

CUL-3 Prior to the start of ground disturbance, the project owner shall submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by or under the direction of the CRS, to the CPM for review and approval. The CRMMP shall follow the content and organization of the draft model CRMMP, provided by the CPM, and the authors' name(s) shall appear on the title page of the CRMMP. The CRMMP shall identify 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 CRM, and the project owner's on-site construction manager. No ground disturbance shall occur prior to CPM approval of the CRMMP, unless such activities are specifically approved by the CPM.

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

1. The following statement included in the Introduction: "Any discussion, summary, or paraphrasing of the Conditions of Certification in this CRMMP is intended as general guidance and as an aid to the user in understanding the Conditions and their implementation. The conditions, as written in the Energy Commission Decision, shall supersede any summarization, description, or interpretation of the conditions in the CRMMP. The Cultural Resources Conditions of Certification from the Energy Commission Decision are contained in Appendix A."
2. A proposed general research design that includes a discussion of archaeological research questions and testable hypotheses specifically applicable to the project area, and a discussion of artifact collection, retention/disposal, and curation policies as related to the research questions formulated in the research design. The research design will specify that the preferred treatment strategy for any buried archaeological deposits is avoidance. A mitigation plan shall be prepared for any CRHR-eligible (as determined by the CPM) resource, impacts to which cannot be avoided. A prescriptive treatment plan may be included in the CRMMP for limited data types.
3. Specification of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance and post-ground–disturbance analysis phases of the project.
4. Identification of the person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team.

5. A description of the manner in which Native American observers or monitors will be included, the procedures to be used to select them, and their role and responsibilities.
6. A description of all impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during project-related ground disturbance, construction, and/or operation, and identification of areas where these measures are to be implemented. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related effects.
7. A statement that all encountered cultural resources over 50 years old shall be recorded on Department of Parks and Recreation (DPR) 523 forms and mapped and photographed. In addition, all archaeological materials retained as a result of the archaeological investigations (survey, testing, data recovery) shall be curated in accordance with the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, into a retrievable storage collection in a public repository or museum.
8. A statement that the project owner will pay all curation fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the project. The project owner shall identify three possible curation facilities that could accept cultural resources materials resulting from project activities.
9. A statement that the CRS has access to equipment and supplies necessary for site mapping, photography, and recovery of any cultural resource materials that are encountered during ground disturbance and cannot be treated prescriptively.
10. A description of the contents and format of the final Cultural Resource Report (CRR), which shall be prepared according to ARMR guidelines.

Verification:

1. Upon approval of the CRS proposed by the project owner, the CPM will provide to the project owner an electronic copy of the draft model CRMMP for the CRS.
2. At least 30 days prior to the start of ground disturbance, the project owner shall submit the CRMMP to the CPM for review and approval.
3. At least 30 days prior to the start of ground disturbance, in a letter to the CPM, the project owner shall agree to pay curation fees for any materials collected as a result of the archaeological investigations (survey, testing, data recovery).

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

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

Verification:

1. Within 30 days after requesting a suspension of construction activities, the project owner shall submit a draft CRR to the CPM for review and approval.
2. Within 90 days after completion of ground disturbance (including landscaping), the project owner shall submit the final CRR to the CPM for review and approval. If any reports have previously been sent to the CHRIS, then receipt letters from the CHRIS or other verification of receipt shall be included in an appendix.
3. Within 90 days after completion of ground disturbance (including landscaping), if cultural materials requiring curation were collected, the project owner shall provide to the CPM a copy of an agreement with, or other written commitment from, a curation facility that meets the standards stated in the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, to accept the cultural materials from this project. Any agreements concerning curation will be retained and available for audit for the life of the project.
4. Within 10 days after CPM approval of the CRR, the project owner shall provide documentation to the CPM confirming that copies of the final CRR have been provided to the SHPO, the CHRIS, the curating institution, if archaeological materials were collected, and to the Tribal Chairpersons of any Native American groups requesting copies of project-related reports.

CUL-5 Prior to and for the duration of ground disturbance, the project owner shall provide Worker Environmental Awareness Program (WEAP) training

to all new workers within their first week of employment at the project site, along the linear facilities routes, and at laydown areas, roads, and other ancillary areas. The 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 may be discontinued when ground disturbance is completed or suspended, but must be resumed when ground disturbance, such as landscaping, resumes.

The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Samples or visuals of artifacts that might be found in the project vicinity;
3. A discussion of what such artifacts may look like when partially buried, or wholly buried and then freshly exposed;
4. A discussion of what prehistoric and historical archaeological deposits look like at the surface and when exposed during construction, and the range of variation in the appearance of such deposits;
5. Instruction that the CRS, alternate CRS, and CRMs have the authority to halt project-related ground disturbance in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS;
6. Instruction that employees are to halt work on their own in the vicinity of a potential cultural resources discovery and shall contact their supervisor and the CRS or CRM, and that redirection of work would be determined by the construction supervisor and the CRS;
7. An informational brochure that identifies reporting procedures in the event of a discovery;
8. An acknowledgement form signed by each worker indicating that they have received the training; and
9. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

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

Verification:

1. At least 30 days prior to the beginning of ground disturbance, the CRS shall provide the training program draft text and graphics and the informational brochure to the CPM for review and approval.

2. At least 15 days prior to the beginning of ground disturbance, the CPM will provide to the project owner a WEAP Training Acknowledgement form for each WEAP-trained worker to sign.
3. Monthly, until ground disturbance is completed, the project owner shall provide in the Monthly Compliance Report (MCR) the WEAP Training Acknowledgement forms of workers who have completed the training in the prior month and a running total of all persons who have completed training to date.

CUL-6 The project owner shall ensure that the CRS, alternate CRS, or CRMs monitor full time all ground disturbance below 4 feet in depth in the locations of the steam turbine generator, the air-cooled condenser, and the westward expansion of the stormwater retention basin, to ensure there are no impacts to undiscovered resources.

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

A Native American monitor shall be obtained to monitor ground disturbance in areas where Native American artifacts may be discovered. Contact lists of interested 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. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM. The CPM will either identify potential monitors or will allow ground disturbance to proceed without a Native American monitor.

Full-time archaeological monitoring for this project shall be the archaeological monitoring of the earth-removing activities in the areas specified in the previous paragraph for as long as the activities are ongoing. Where excavation equipment is actively removing dirt and hauling the excavated material farther than fifty feet from the location of active excavation, full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation and a second monitor shall inspect the dumped material. For excavation areas where the excavated material is dumped no further than fifty feet from the location of active excavation, one monitor shall both observe the location of active excavation and inspect the dumped material.

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. Copies of

the daily monitoring logs shall be provided by the CRS to the CPM, if requested by the CPM. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the MCR. If there are no monitoring activities, the summary report shall specify why monitoring has been suspended.

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

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

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

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

Upon becoming aware of any incidents of non-compliance with the Conditions and/or applicable LORS, the CRS and/or the project owner shall notify the CPM by telephone or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the Conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.

Verification:

1. At least 30 days prior to the start of ground disturbance, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log.
2. Monthly, while monitoring is on-going, the project owner shall include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS and shall attach any new DPR 523A forms completed for finds treated prescriptively, as specified in the CRMMP.
3. At least 24 hours prior to implementing a proposed change in monitoring level, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for changing the monitoring level.

4. Daily, as long as no cultural resources are found, the CRS shall provide a statement that “no cultural resources over 50 years of age were discovered” to the CPM as an e-mail or in some other form of communication acceptable to the CPM.
5. At least 24 hours prior to reducing or ending daily reporting, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS’s justification for reducing or ending daily reporting.
6. No later than 30 days following the discovery of any Native American cultural materials, the project owner shall submit to the CPM copies of the information transmittal letters sent to the Chairpersons of the Native American tribes or groups who requested the information. Additionally, the project owner shall submit to the CPM copies of letters of transmittal for all subsequent responses to Native American requests for notification, consultation, and reports and records.
7. Within 15 days of receiving them, the project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner’s transmittals of information.

CUL-7 The project owner shall grant authority to halt project-related ground disturbance 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 that a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the CPM), or impacts to such a resource can be anticipated, ground disturbance shall be halted or redirected in the immediate vicinity of the discovery sufficient to ensure that the resource is protected from further impacts. Monitoring and daily reporting, as provided in other conditions, shall continue during the project’s ground-disturbing activities elsewhere. The halting or redirection of ground disturbance shall remain in effect until the CRS has visited the discovery, and all of the following have occurred:

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

2. If the discovery would be of interest to Native Americans, the CRS has notified all Native American groups that expressed a desire to be notified in the event of such a discovery.
3. The CRS has completed field notes, measurements, and photography for a DPR 523 “Primary” form. Unless the find can be treated prescriptively, as specified in the CRMMP, the “Description” entry of the DPR 523 “Primary” form shall include a recommendation on the CRHR eligibility of the discovery. The project owner shall submit completed forms to the CPM.
4. The CRS, the project owner, and the CPM have conferred, and the CPM has concurred with the recommended eligibility of the discovery and approved the CRS’s proposed data recovery, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation have been completed.

Verification:

1. At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, and CRMs have the authority to halt project-related ground disturbance in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning.
2. Within 48 hours of the discovery of a resource of interest to Native Americans, the project owner shall ensure that the CRS notifies all Native American groups that expressed a desire to be notified in the event of such a discovery.
3. Unless the discovery can be treated prescriptively, as specified in the CRMMP, completed DPR 523 forms for resources newly discovered during ground disturbance shall be submitted to the CPM for review and approval no later than 24 hours following the notification of the CPM, or 48 hours following the completion of data recordation/recovery, whichever the CRS decides is more appropriate for the subject cultural resource.

D. GEOLOGICAL AND PALEONTOLOGICAL RESOURCES

Dal Hunter, Ph.D., C.E.G, testified on behalf of the Staff that with the implementation of Staff's recommended geological and paleontological Conditions of Certification, the amended project will continue to comply with all applicable LORS and will not create significant adverse direct or cumulative impacts related to geological and paleontological resources. The site is subject to geological hazards such as strong ground shaking and liquefaction, but those hazards can be mitigated through facility design as required by the 2007 California Building Code. Potential impacts to paleontological resources, if found during construction, can be mitigated by procedures specified in the recommended Conditions of Certification. Staff proposes that the Conditions of Certification be updated to refer to the now current 2001 version of the CBC, and that existing Conditions of Certification **PALEO-1** be replaced with the updated paleontological-related Conditions now considered standard for power plant Siting cases. (Ex. 100, p. 5.2-1 – 5.2-9)

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Geological and Paleontological Resources aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

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 keep resumes on file for 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. Paleontological resource monitors (PRMs) shall have the equivalent of the following qualifications:

- BS or BA degree in geology or paleontology and one year of 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, 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's 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 obtain 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 lay-down 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 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 be at a scale between 1 inch = 40 feet and 1 inch = 100 feet. If the footprint of the project or its linear facilities changes, the project owner shall provide maps and drawings reflecting those changes to the PRS and CPM.

If construction of the project proceeds in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the PRS and CPM. Before work commences on affected phases, the project 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 the following week and 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 the basis of discussion when 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 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 monitoring and sampling;
6. A discussion of 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 meet the Society of Vertebrate Paleontology's standards and requirements for the curation of paleontological resources;

9. Identification of the institution that has agreed to receive data and fossil materials collected, requirements or specifications for materials delivered for curation and how they will be met, and the name and phone number of the contact person at the institution; 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 activities involving ground disturbance, the project owner and the PRS shall prepare and conduct weekly CPM-approved training for the following workers: project managers, construction supervisors, foremen, and general workers involved with or who 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 other areas of interest or concern. 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 possibility of encountering paleontological resources in the field, the sensitivity and importance of these resources, and legal obligations to preserve and protect those resources.

The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Good quality photographs or physical examples of vertebrate fossils for project sites containing units of high paleontological 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 WEAP certification of completion form signed by each worker indicating that he/she has 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 for workers 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 to use 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 potential fossil-bearing materials have been identified, both at the site and along any constructed linear facilities associated with the project. In the event that the PRS determines full-time monitoring is not necessary in locations that were identified as potentially fossil bearing in the PRMMP, the project 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 from the accepted schedule 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 will be included in the monthly compliance report. The letter or email shall include the justification for the change in monitoring and be submitted to the CPM for review and approval.
2. The project owner shall ensure that the PRM(s) keep a daily monitoring log 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 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 event, where construction has been halted because of a paleontological find.

The project owner shall ensure that the PRS prepares a summary of monitoring and other paleontological activities placed in the monthly compliance reports. The summary will include the name(s) of PRS or PRM(s) active during the month; general descriptions of training and monitored construction activities; and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. A final section of the report will address any issues or concerns about the project relating to paleontological monitoring, including any incidents of non-compliance or any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.

Verification: 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 project construction.

Verification: The project owner shall maintain in his/her 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 project completion and approval of the CPM-approved paleontological resource report (see Condition of Certification **PAL-7**). The project owner shall be responsible for paying 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 submit it 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 PRR under confidential cover to the Executive Director.

Certification of Completion
Worker Environmental Awareness Program
Hanford Combined-Cycle Power Plant (01-EP-7C)

This is to certify these individuals have completed a mandatory California Energy Commission-approved Worker Environmental Awareness Program (WEAP). The WEAP includes pertinent information on cultural, paleontological, and biological resources for all personnel (that is, construction supervisors, crews, and plant operators) working on site or at related facilities. By signing below, the participant indicates that he/she understands and shall abide by the guidelines set forth in the program materials. Include this completed form in the Monthly Compliance Report.

No.	Employee Name	Title/Company	Signature
1.			
2.			
3.			
4.			
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23.			
24.			
25.			

Cultural Trainer: _____ Signature:_____ Date: ___/___/____

Paleo Trainer: _____ Signature:_____ Date: ___/___/____

Biological Trainer: _____ Signature:_____ Date: ___/___/____

E. WASTE MANAGEMENT

The testimony of Staff witness Ellie Townsend-Hough indicates that the amended project will comply with applicable LORS and will not cause significant environmental effects. Staff recommends new and revised Conditions of Certification to ensure that disposal of the waste generated during demolition, construction, and operation of GWF Hanford would not result in any significant adverse impacts. (Ex. 100, pp. 4.12-1 – 4.12-4.)

Staff proposes to modify Condition of Certification **WASTE-1** to ensure the project owner maintains compliance with California Code of Regulations Title 22, Section 66262.12 for identification of U.S. EPA hazardous waste generators. Also to ensure wastes are handled and disposed of properly, staff proposes to delete **WASTE-3** and replace it with **WASTE-4**. We find these changes appropriate and incorporate them below.

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Waste Management aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

WASTE-1 The project owner shall use the existing hazardous waste generator identification number from the Department of Toxic Substances Control required for producing any hazardous waste.

Verification: The project owner shall keep its copy of the identification number on file at the project site.

WASTE-2 The project owner shall have an environmental professional available for consultation during soil excavation and grading activities. The environmental professional shall be given full authority to oversee any earth moving activities that have the potential to disturb contaminated soil. The environmental professional shall meet the qualifications of such as defined by the American Society for Testing and Materials designation E 1527-05 Standard Practice for Phase I Environmental Site Assessments.

Verification: If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities, the environmental professional shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and make a recommended course of action. The environmental professional shall have the authority to suspend construction activity at that location. If, in the opinion of the environmental professional, remediation is to be required, the project owner shall consult with the CPM and a decision will be made by the CPM.

WASTE-3 Deleted

WASTE-4 Prior to the start of construction and operation, the project owner shall prepare and submit to the Energy Commission CPM, for review and comment, a waste management plan for all wastes generated during construction and then operation and maintenance of the facility, respectively. The plans shall contain, at minimum, the following:

- A description of all waste streams, including projections of frequency, amounts generated, and hazard classifications;
- Methods of managing each waste, including but not limited to: waste testing methods to assure correct classification, specific waste segregation and storage procedures and facilities, treatment methods and companies contracted with for treatment services, methods of transportation and companies contracted with for transportation, disposal requirements and sites, employee hazardous materials training, employee protection, spill response and reporting, and recycling and waste minimization/reduction plans; and
- Methods to be put into place to audit and ensure continuing compliance with the Work plan and all applicable LORS.

Verification: No less than 30 days prior to the start of construction the project owner shall submit the construction waste management plan to the CPM for review.

The operation waste management plan shall be submitted no less than 30 days prior to the start of project operation.

The project owner shall submit any required revisions within 20 days of notification by the CPM (or mutually agreed upon date).

In the Annual Compliance Reports, the project owner shall document the actual waste management methods used during the year compared to planned management methods.

WASTE-5 Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.

Verification: The project owner shall notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the manner in which project-related wastes are managed.

VII. LOCAL IMPACT ASSESSMENT

A. LAND USE

Staff's witness Robert Fiore testified that with the effective implementation of the additional Condition of Certification, **LAND-4**, the amended project will not pose additional land use planning and agricultural resources impacts and would be in compliance with land use planning LORS. The amended project would be contained within the current project's footprint, and the only change in Land Use-related LORS is the implementation of Performance and Development Standards by the City of Hanford for the Kings Industrial Park, within which the project is located. Staff's proposed new Condition of Compliance **LAND-4** requires that the project conform with the City's Performance and Development Standards for the Kings Industrial Park.

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Land Use aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

LAND–1 The project will conform to all applicable local, state and federal land use requirements, including general plan policies, zoning regulations, local development standards, easement requirements, encroachment permits, truck and vehicle circulation plan requirements, Federal Aviation Administration approval, and the Federal Emergency Management Agency National Flood Insurance Program.

Prior to start of construction, the project owner will submit to the CPM documentation verifying compliance with the above referenced land use requirements.

Verification: 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.

LAND-2 Prior to occupying any off-site lay-down or storage facilities the applicant shall provide detailed plans indicating the location of existing and proposed use of the sites to the CPM. Such sites shall be previously disturbed and shall not require any clearing or grading to accommodate the proposed use. To prevent possible impacts to sensitive resources, the applicant shall coordinate with the CPM to determine if biological or cultural surveys are required. This submission shall include written landowner approval and must comply with all local land use requirements. If the proposed site is located within public rights-of-way, appropriate traffic control plans and encroachment permits will be provided to the CPM.

Verification: Prior to the start of construction, the project owner will submit to the CPM documentation verifying compliance with the above referenced land use requirements.

LAND-3 The project owner shall ensure that local gas, electric and telephone companies are contacted regarding the exact location of their services. Any alterations or relocation of the utilities shall be the responsibility of the project owner.

Verification: The project owner shall provide written evidence to the CPM to indicate that all utility companies have been notified regarding proposed construction and that these utilities have identified the location of these facilities in the area of construction.

LAND-4 The project owner shall comply with performance standards for the HI Zoning District set forth in the City of Hanford's Municipal Code, Title 17, Zoning, and Kings Industrial Park Performance and Development Standards.

Verification: The project owner shall submit a site plan to the City of Hanford for review and comment. At least 60 days prior to the start of construction, the project owner shall provide evidence of review and any comments pertaining to the site plan by the City of Hanford to the Compliance Project Manager and Chief Building Official. Such evidence shall demonstrate that the project's new facilities, structures and buildings satisfy the Kings Industrial Park Performance and Development Standards, Part VI. D. through Part VI. M.

B. NOISE

The testimony of Staff witness Shahab Khoshmashrab indicates that the conclusions in the 2001 Decision would not be changed by the proposed amendment. Staff concluded that since the HEPP was licensed no new sensitive receptors have located in the project vicinity, and though the addition of the steam turbine-generator and air-cooled condenser will raise noise levels slightly near the project, it will remain in compliance with the original conditions of certification relating to Noise and Vibration and the City of Hanford's applicable noise requirements.

Staff recommends only one minor change to noise-related Conditions of Certification, recommending modification of **NOISE-1** to specify that post-construction noise surveys taken to ensure the project's continued compliance with the City of Hanford's noise requirements are conducted at power levels of at least 90 percent. This will ensure that all six of the air-cooled condenser fans are in operation during the survey, meaning that the plant will still comply with all noise-related requirements even when operating at its loudest levels.

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Noise aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

NOISE-1 The project shall be required to comply with applicable community noise standards.

Verification: Within 30 days of the project first achieving a sustained output of 90 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey, utilizing the same monitoring sites employed in the pre-project ambient noise survey as a minimum. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints. Steam relief valves shall be adequately muffled to preclude noise that draws legitimate complaints. If the results from the survey indicate that the project noise levels at the closest sensitive receptor are in excess of 50 dBA between the hours of 10:00 p.m. and 7:00 a.m., additional mitigation measures shall be implemented to reduce noise to a level of compliance with this limit.

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.

Verification: Within 30 days of receiving a noise complaint, the project owner shall file a copy of the Noise Complaint Resolution Form, or similar instrument approved by the CPM, with the County Environmental Health Department, and with the CPM, documenting the resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a 30-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is finally implemented.

NOISE-3 Night construction activities may be authorized by the CPM if they are consistent with local noise ordinances. Night construction, or specific night construction activities may be disallowed by the CPM if it results in significant impact to the surrounding community.

Verification: Noise monitoring and surveys may be conducted if complaints are reported by residence in the surrounding area of the project site.

NOISE-4 Prior to the start of project-related ground disturbing activities, the project owner shall notify all residents and business owners within one-half mile of the site or adjacent to the pipeline routes, by mail or 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 per 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 in a manner visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year.

Verification: The project owner shall transmit to the Compliance Project Manager (CPM) in the first Monthly Construction Report following the start of project-related ground disturbing activities, a statement, signed by the project manager, attesting that the above notification has been performed, and describing the method of that notification. This statement shall also attest that the telephone number has been established and posted at the site.

NOISE-5 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 (see Exhibit 1 for example), or 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 related to the complaint;
- Take all feasible measures to reduce the noise at its source if the noise is project related; and
- Submit a report documenting the complaint and the actions taken. The report shall include: a complaint summary, including final results of noise reduction efforts; and if obtainable, a signed statement by the complainant stating that the noise problem is resolved to the complainant's satisfaction.

Verification: Within 5 days of notifying these entities, the project owner shall send a letter to the CPM confirming that they have been notified of the planned steam or air blow activities, including a description of the method(s) of that notification.

NOISE-6 Prior to the start of project-related site mobilization, the project owner shall submit to the CPM for review a noise control program. The noise control program shall be used to reduce employee exposure to high

noise levels during construction and also to comply with applicable OSHA and Cal-OSHA standards.

Verification: Prior to the start of project-related mobilization activities, the project owner shall submit to the CPM the above referenced program. The project owner shall make the program available to OSHA upon request.

NOISE-7 Within 30 days after the facility is in full operation, the project owner shall conduct an occupational noise survey to identify the 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 that will be employed 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.

NOISE-8 Noisy construction work (that which causes offsite annoyance, as evidenced by the filing of a legitimate noise complaint) shall be restricted to the times of day delineated below:

- High-pressure steam blows: 8 a.m. to 5 p.m.
- Other Noisy Work: 7 a.m. to 7 p.m.

Verification: The project owner shall transmit to the CPM in the first monthly construction report a statement acknowledging that the above restrictions will be observed throughout the construction of the project.

C. SOCIOECONOMICS

Hedy Koczwara testified on behalf of staff that the amended project will not cause significant socioeconomic effects. The estimates of project benefits show a total construction cost of $90 million, construction wages of $23.5 million, and sales taxes during construction of $108,750. Property tax revenues to the City of Hanford will be approximately $900,000 annually. Project labor will peak at 154 persons, with the workforce staged such that the same workforce will also work on GWF Energy's nearby Henrietta Combined-Cycle Power Plant (Ex. 100, p. 4.7-9). Staff recommended no Conditions of Certification in the area of Socioeconomics.

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The Socioeconomics aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

None

D. TRAFFIC AND TRANSPORTATION

Staff witness James Adams testified that the proposed amendment would not be a significant change from the original project in terms of traffic and transportation impacts. However, Staff identified two nearby road segments with significantly worse levels of service than during construction of the HEPP in 2001: State Route 99 between State Routes 137 and 198, and 11th Avenue between Houston Avenue and Hanford-Armona Road. Staff recommended updating the existing Condition of Certification **TRANS-6** to instruct construction contractors and subcontractors to avoid those segments during peak traffic periods.

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Traffic and Transportation aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

TRANS-1 The project permitted under this emergency process shall comply with Caltrans and City/County limitations on vehicle sizes and weights. In addition, the project owner or its contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.

Verification: The project owner shall keep copies of any oversize and overweight transportation permits received at the project site.

TRANS-2 The project permitted under this emergency process shall comply with Caltrans and City/County limitations for encroachment into public rights-ofway and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.

Verification: The project owner shall keep copies of any encroachment permits received at the project site.

TRANS-3 The project permitted under this emergency process shall ensure that permits and/or licenses are secured from the California Highway Patrol and Caltrans for the transport of hazardous materials.

Verification: The project owner shall keep copies of all permits/licenses acquired by the project owner and/or subcontractors concerning the transport of hazardous substances at the project site.

TRANS-4 Following completion of construction of the power plant and all related facilities, the project owner shall return all roadways to original or as near original condition as possible.

Verification: At least 30 days prior to construction, the licensee shall photograph or film the primary roadways potentially affected by construction of the HEPP. The licensee shall provide the CPM and the City of Hanford with a copy of these photographs or film. Within 30 days of the completion of project construction, the licensee will meet with the CPM and City of Hanford Public Works Department to determine and receive approval for the actions necessary and a schedule to complete the repair of any damaged roadway to original condition as near as possible.

TRANS-5 During construction of the power plant and all related facilities, the project owner shall manage on-site and off-site construction-period parking.

Verification: Prior to any earth moving or ground disturbance activity the project owner shall submit a parking and staging plan to the CPM for review and approval. The plan shall utilize areas already disturbed and not result in any disturbance of off-site land and shall not utilize on-street parking.

TRANS-6 The project owner shall advise construction contractors and subcontractors that workers and truck traffic should avoid using SR-99 between SR-137 and SR-198 during morning and afternoon peak periods, and 11th Street between Houston Avenue and Hanford-Armona Road.

Verification: At least 30 days prior to earth-moving activities, the project owner shall provide a copy of letters sent to project construction contractors and subcontractors to the CPM for review and approval that direct workers to avoid the portions of SR-99 and 11th Street noted above.

TRANS-7 Fire access road requirement of the city. The proposed project shall include a fire access road acceptable to the City of Hanford Fire Department.

Verification: Prior to construction the applicant shall submit plans illustrating the fire road including vertical clearance, load-bearing capacity, minimum radii, and width to the City Fire official for review and approval. The project owner shall submit to the CPM written confirmation that the city has reviewed that plans and that the proposed roadway meets city fire road requirements.

E. VISUAL RESOURCES

Staff witness Marie McLean testified that the proposed modifications to the HEPP do not significantly alter the visual resources findings found in the Energy Commission's May 2001 decision pertaining to the HEPP. (Ex. 100, pp. 4.11-2) The HEPP is located in an industrial area with no nearby residences, and the changes proposed to the project would not significantly alter the overall visual character of the area. To ensure no impact to visual resources are created during construction of the Hanford Combined-Cycle Power Plant, Staff recommended two new Conditions of Certification addressing screening and restoration of construction parking, staging and laydown areas.

FINDINGS AND CONCLUSIONS

Based on the evidence, we find as follows:

1. The project as amended will continue to comply with all applicable LORS.
2. The revised Conditions of Certification set forth below are appropriate and will ensure that the project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety and to ensure compliance with all applicable LORS.
3. The Visual Resources aspects of the amended project do not create significant direct or cumulative environmental effects.

CONDITIONS OF CERTIFICATION

VIS-1 Project structures treated during manufacture and all structures treated in the field, that are visible to the public, shall be painted in a neutral color consistent with the surrounding environment.

Verification: Prior to painting exposed services, the project owner shall identify the selected color for CPM approval.

VIS-2 Replaced with VIS-6

VIS-3 The project owner shall prepare and submit to the local planning department for review and comment, and to the CPM for review and approval a landscaping plan which provides for any or all of the following, as appropriate, to screen the project from view: berms, vegetation and trees, and slats in fencing.

Verification: Within 30 days of certification, the project owner shall submit the landscaping plan to the local planning department and the CPM.

VIS-4 Proposed Transmission Line Route Tree Replacement. Trees removed as a result of transmission line construction shall be replaced on a one-to-one inkind basis. Replacement planting shall be monitored for a period of 3 years to ensure 100 percent survival. During this period all dead plant material shall be replaced. If feasible, this planting shall be located between the project right-of-way and the shoulder of 11th Avenue. The project owner shall submit a plan for the landscape screening and three-year mitigation monitoring program to the CPM for review and approval. If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the submittal, the project owner shall submit to the CPM a revised plan. The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM. The project owner shall notify the CPM within one week after the landscape screening has been installed and is ready for inspection.

Verification: At least 5 days prior to installing the landscape screening, the project owner shall submit the plan to the CPM for review and approval. If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 10 days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal. The project owner shall notify the CPM within seven days after completing installation of the landscape screening that the planting is ready for inspection.

VIS-5 The project owner shall ensure that the power plant is enclosed in a 6-foot tall solid wall or a 6-foot fence with slats.

Verification: Prior to operation of the proposed project the CPM shall inspect the project site to ensure that a block wall or slatted fence has been installed.

VIS-6 Night Lighting. The project owner shall design and install all new project lighting to minimize potential night lighting impacts, as follows:

a. All new night lighting shall be of minimum necessary brightness consistent with operational safety.

b. All new lighting shall be shielded and directed downward to prevent all uplighting and all direct light trespass (direct lighting extending outside the boundaries of the facility).

c. Wherever feasible and safe, lighting shall be kept off when not in use.

d. A lighting complaint resolution form shall be maintained by plant operations, to record all lighting complaints received and to document the resolution of that complaint.

e. Lighting shall be installed consisted with local requirements.

Verification: The project owner shall develop a lighting plan for the project incorporating the above measures and submit it to the CPM for review and approval. If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the plan, the project owner shall prepare and submit to the CPM a revised plan. Lighting shall not be installed before the plan is approved. The project owner shall notify the CPM when the lighting has been installed and is ready for inspection. Before ordering the exterior lighting, the project owner shall provide the lighting plan to the CPM for review and approval. If the CPM notifies the project owner that any revisions of the plan are needed before the CPM will approve the plan, within seven days of receiving that notification the project owner shall submit to the CPM a revised plan.

The project owner shall notify the CPM within 7 days of completing exterior lighting installation that the lighting is ready for inspection.

VIS-7 The project owner shall reduce the visibility of construction equipment, materials, and activities at the project site and at any material or equipment storage or staging area with temporary screening, such as fabric attached to fencing or berms, prior to the start of ground disturbance. Screening shall be of an appropriate height, design, opacity, and color for each specific location, as determined by the CPM.

The project owner shall submit to the CPM for review and approval a specific screening plan for satisfying those requirements.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit the screening plan to the CPM for review and approval. The screening shall be installed during the site mobilization phase. The project owner shall notify the CPM when installation is completed.

The project owner shall provide the CPM with electronic color photographs after installing screening at the power plant site and at staging and material and equipment storage areas indicating the effectiveness of the screening.

VIS-8 The project owner shall ensure that visual impacts of the project construction are adequately mitigated by implementing the following measures:

All evidence of construction activities, including ground disturbance in staging and storage areas, shall be removed and remediated upon completion of construction. Any vegetation removed in the course of construction will be replaced on a 1-to-1, in-kind basis. Such replacement planting shall be monitored for a period of three years to ensure survival. During this period all dead plants shall be replaced.

The project owner shall submit a plan for restoring the surface conditions of any areas temporarily disturbed during construction of the amended project. The plan shall include grading to the original grade and contouring and revegetation of temporarily disturbed areas.

The project owner shall not implement the plan until receiving written approval of the submittal from the California Energy Commission Compliance Project Manager.

Verification: At least 60 days prior to the start of site mobilization, the project owner shall submit the plan to the CPM for review and approval.

If the CPM notifies the project owner that any revisions of the plans are needed before the CPM will approve the plan, within 30 days of receiving that notification, the project owner shall submit to the CPM a revised plan.

The project owner shall notify the CPM within seven days after completing the surface restoration that the areas disturbed during construction are ready for inspection.