CH2M HILL
2485 Natomas Park Drive
Suite 600
Sacramento, CA 95833
Tel 916.286.0224
Fax 916.614.3424

March 25, 2013

427930.DI.HR

Mr. Kenneth Celli
Hearing Officer
California Energy Commission
1516 Ninth Street, MS-43
Sacramento, CA 95814

Subject: Conditions as Revised by Applicant and Staff
Hidden Hills Solar Electric Generating System (11-AFC-2)

Dear Mr. Celli:

On behalf of Hidden Hills Solar I, LLC; and Hidden Hills Solar II, LLC, please find attached copies of the Conditions as Revised by Applicant and Staff.

Please call me if you have any questions.

Sincerely,

CH2M HILL

John L. Carrier, J.D.
Program Manager

Encl.

c: POS List
Project file

Conditions as Revised by Applicant and Staff

Air Quality

STAFF CONDITIONS OF CERTIFICATION

Staff conditions AQ-SC1 through AQ-SC9 are all CEQA-only mitigation measures associated with construction and operation of the proposed facility.

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 of certification **AQ-SC3**, **AQ-SC4** and **AQ-SC5** for the project site and the portions of the linear facility constructed in California. 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 located in California, 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.

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 of certification **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 AQCMP shall include effectiveness and environmental data for the proposed soil stabilizer. The CPM will notify the project owner of any necessary modifications to the plan within 15 business days from the date of receipt.

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 boundary. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

A. The main access roads through the facility to the power block areas will be paved prior to initiating construction in the main power block area, and delivery areas for operations materials (chemicals, replacement parts, etc.) will be paved prior to taking initial deliveries.

B. All unpaved construction roads and unpaved operational site roads, as they are being constructed, shall be stabilized with a non-toxic soil

stabilizer or soil weighting agent that can be determined to be both as efficient or more efficient for fugitive dust control as ARB-approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation. All other disturbed areas in the project and linear construction sites located in California shall be watered as frequently as necessary during grading and stabilized with a non-toxic soil stabilizer or soil weighting agent to comply with the dust mitigation objectives of condition of certification AQ-SC4. The frequency of watering can be reduced or eliminated during periods of precipitation.

C. No vehicle shall exceed 10 miles per hour on unpaved areas within the construction site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.

D. Visible speed limit signs shall be posted at the construction site entrances and along traveled routes.

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

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

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

H. 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.

I. Construction areas adjacent to any paved roadway shall be provided with sandbags or other equivalently effective measures to prevent run-off to roadways, or other similar run-off control measures as specified in the Storm Water Pollution Prevention Plan (SWPPP), only when such SWPPP measures are necessary so that this condition does not conflict with the requirements of the SWPPP.

J. 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.

K. At least the first 500 feet of any paved public roadway exiting the construction site or exiting other unpaved roads en route from the construction site or construction staging areas shall be swept at least twice daily (or less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or runoff resulting from the construction site activities is visible on the public paved roadways.

L. 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.

M. All vehicles used to transport solid bulk material on public roadways and that have 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 one foot of freeboard.

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

Verification: The AQCMM shall provide the CPM a MCR (COMPLIANCE-6) to include:

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

B. copies of any complaints filed with the district and provided to the Applicant in relation to project construction; and

C. 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: (A) off the project site and within 400 feet upwind of any regularly occupied structures not owned by the project owner, or (B) 200 feet beyond the centerline of the construction of linear facilities indicate that existing mitigation measures are not resulting in effective mitigation. The AQCMP shall include a section detailing how the augmented mitigation measures will be accomplished within the time limits specified in steps 1 through 3, below. The AQCMM or Delegate shall implement the following procedures for augmented 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 augmented methods of dust suppression if Step 1, specified above, fails to result in adequate mitigation within 30 minutes of the original determination.

Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2, specified above, fails to result in effective mitigation within one hour of the original

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

Verification: The AQCMM shall provide the CPM a MCR (COMPLIANCE-6) to include:

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

B. copies of any complaints filed with the District and provided to the project owner in relation to project construction; and

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

All off-road diesel construction equipment with a rating of 50 hp or greater used in the construction of this facility shall ~~be powered by the cleanest engines available that also~~ comply with the California Air Resources Board's (ARB's) Regulation for In-Use Off-Road Diesel Fleets (California Code of Federal Regulations Title 13, Article 4.8, Chapter 9, Section 2449 et seq.) and shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by AQ-SC2. The AQCMP measures shall include the following, with the lowest-emitting engine chosen in each case, as available:

a. All off-road vehicles with compression ignition engines shall comply with the California Air Resources Board's (ARB's) Regulation for In-Use Off-Road Diesel Fleets.

b. To meet the highest level of emissions reduction available for the engine family of the equipment, each piece of diesel-powered equipment shall be powered by a Tier 4 engine (without add-on controls) or Tier 4i engine (without add-on controls), or a Tier 3 engine with a post-combustion retrofit device verified for use on the particular engine powering the device by the ARB or the US EPA. For PM, the retrofit device shall be a particulate filter if verified, or a flow-through filter, or at least an oxidation catalyst. For NOx, the device shall meet

the latest Mark level verified to be available (as of January 2012, none meet this NOx requirement).

c. For diesel powered equipment where the requirements of Part "b" cannot be met, the equipment shall be equipped with a Tier 3 engine without retrofit control devices or with a Tier 2 or lower Tier engine using retrofit controls verified by ARB or US EPA as the best available control device to reduce exhaust emissions of PM and nitrogen oxides (NOx) unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices can be considered "not practical" for the following, as well as other, reasons:

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

    2. The use of the retrofit device would unduly restrict the vision of the operator such that the vehicle would be unsafe to operate because the device would impair the operator's vision to the front, sides, or rear of the vehicle, or

    3. The construction equipment is intended to be on site for 10 work days or less.

d. The CPM may grant relief from a requirement in Part "b" or "c" if the AQCMM can demonstrate a good faith effort to comply with the requirement and that compliance is not practical.

e. The use of a retrofit control device may be terminated immediately provided that: (1) the CPM is informed within 10 working days following such termination; (2) a replacement for the construction equipment in question, which meets the level of control required, occurs within 10 work days following such termination of the use (if the equipment would be needed to continue working at this site for more than 15 work days after the use of the retrofit control device is terminated); and (3) one of the following conditions exists:

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

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

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

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

f. All equipment with engines meeting the requirements above shall be properly maintained and the engines tuned to the engine manufacturer's specifications. ~~Each engine shall be in its original configuration and the equipment or engine must be replaced if it exceeds the manufacturer's approved oil consumption rate~~.

g. Construction equipment will employ electric motors when feasible.

h. If the requirements detailed above cannot be met, the AQCMM shall certify that a good faith effort was made to meet these requirements and this determination must be approved by the CPM.

i. All off-road 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.

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

Verification: The AQCMM shall include in the MCR the following to demonstrate control of diesel construction-related emissions:

A summary of all actions taken to control diesel construction related emissions;

A table listing list of all heavy equipment used on site during that month, showing the tier level of each engine and the basis for alternative compliance with this condition for each engine not meeting Part "b" requirements. The MCR shall identify the owner of the equipment and contain a letter from each owner indicating that the equipment has been properly maintained; and

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

AQ-SC6 The project owner, when obtaining dedicated vehicles for mirror washing activities and other facility maintenance activities, shall only obtain new model year vehicles that meet California on-road or EPA non-road vehicle emission standards for the year when obtained.

Other vehicle/fuel types may be allowed assuming that the emission profile for those vehicles, including fugitive dust generation emissions, is comparable to the vehicles types identified in this condition.

Verification: At least 60 days prior to the start of commercial operation, the project owner shall submit to the CPM a plan that identifies the size and type of the on-site vehicle and equipment fleet and the vehicle and equipment purchase orders and contracts and/or purchase schedule. The plan shall be updated every other year and submitted in the Annual Compliance Report (**COMPLIANCE-7**).

AQ-SC7 The project owner shall provide a site operations dust control plan, including all applicable fugitive dust control measures identified in **AQ-SC3** that would be applicable to reducing fugitive dust from ongoing operations; that:

A. describes the active operations and wind erosion control techniques such as windbreaks and chemical dust suppressants, including their ongoing maintenance procedures, that shall be used on areas that could be disturbed by vehicles or wind anywhere within the project boundaries; and

B. identifies the location of signs throughout the facility that will limit traveling on unpaved surfaces to solar equipment maintenance vehicles only. In addition, vehicle speed shall be limited to no more than 10 miles per hour on these unpaved surfaces, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved surfaces as long as such speeds do not create visible dust emissions.

The site operations ~~fugitive~~ dust control plan shall include the use of durable non-toxic soil stabilizers on all regularly used unpaved roads and disturbed off-road areas, or alternative methods for stabilizing disturbed off-road areas, within the project boundaries, and shall include the inspection and maintenance procedures that will be undertaken to ensure that the unpaved roads remain stabilized. The soil stabilizer used shall be a non-toxic soil stabilizer or soil weighting agent that can be determined to be both as efficient or more efficient for fugitive dust control as ARB approved soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation.

The fugitive dust controls shall meet the performance requirements of condition **AQ-SC4**. The performance requirements of **AQ-SC4** shall also be included in the operations dust control plan.

At the time of decommissioning, the applicant is required to obtain Energy Commission approval to control wind-blown dust emissions until a natural crust is developed as part of the project owner's long-term dust control plan.

Verification: At least 60 days prior to start of commercial operation, the project owner shall submit to the CPM for review and approval a copy of the plan that identifies the dust and erosion control procedures, including effectiveness and environmental data for the proposed soil stabilizer, that will be used during operation of the project and that identifies all locations of the speed limit signs. At least 60 days after the beginning of commercial operation, the project owner shall provide to the CPM a report identifying the locations of all speed limit signs, and a copy of the project employee and contractor training material that clearly identifies that project employees and contractors are required to comply with the dust and erosion control procedures and on-site speed limits.

AQ-SC8 The project owner shall provide the CPM copies of all district issued Authority-to-Construct (ATC) and Permit-to-Operate (PTO) documents for the facility.

The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. The project owner shall submit to the CPM any modification to any permit proposed by the district or U.S. Environmental Protection Agency (U.S. EPA), and any revised permit issued by the district or U.S. EPA for the project.

Verification: The project owner shall submit any ATC, PTO, and proposed air permit modifications to the CPM within 5 working days of its submittal either by 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency. The project owner shall submit all approved modified air permits to the CPM within 15 days of receipt.

AQ-SC9 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 CONDITIONS OF CERTIFICATION

Conditions Applicable to Hidden Hills Solar 1 Power Plant (GBUAPCD ATC Number 1604-00-11) and Hidden Hills Solar 2 Power Plant (GBUAPCD 1605-00-11) (identical conditions, only equipment ID numbers differ).

References below to the "CPM" mean the Energy Commission's Compliance Program Manger.

GENERAL CONDITIONS

AQ-1 Facility Startup

The permittee shall notify the District in writing when construction is complete and the equipment is ready for commissioning operations. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this ATC is issued unless otherwise noted. Notification shall be given to the District office by email, Postal Service delivery or telephone facsimile transmission at least 72 hours prior to equipment start-up. Operation of this equipment without a written Permit to Operate is a violation of District Rule 200 B, and can result in civil and criminal penalties under California Health & Safety Code (H&SC) § 42400.

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

AQ-2 Commissioning Period under Temporary Permit to Operate:
Following a District inspection verifying that the facility is constructed in a manner consistent with the specifications in the application and with this Authority to Construct, a temporary Permit to Operate (TPO) shall be issued. The TPO shall be valid for the duration of the commissioning period defined below and until a Permit to Operate is issued or denied.

A. Commissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the construction contractor to ensure safe and reliable steady state operation of the boilers and associated control systems.

B. The commissioning period shall commence when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when a boiler is first fired, whichever occurs first. The commissioning period shall terminate when the plant has completed initial source testing, completed final plant tuning, and is available for commercial operation.

C. During the commissioning period, the owner or operator shall keep records of the natural gas fuel combusted in the boilers on hourly and daily basis. The natural gas fuel combusted during the commissioning period shall accrue towards the annual fuel use limit.

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

AQ-3 Right-of-Entry
The "Right of Entry", as defined by California H&SC § 41510 of Division 26, shall apply at all times with respect to the equipment and the Control System. Representatives of the Great Basin Unified Air Pollution Control District shall be permitted to enter the facility to inspect and copy any record required to be kept under the terms of this permit. District staff shall also be permitted to inspect any equipment, work practices, air emission-related activity or method dictated by this permit. If deemed necessary by the District to verify compliance with these conditions, the permittee shall within 7 days notice be available to open any sample extraction port, or exhaust outlet for the purpose of conducting source tests or to collect samples. In enforcing the terms of this permit, any cost incurred in collecting samples, source testing and laboratory analysis fees shall be the responsibility of the project owner. [District Rules 210 and 302 Analysis Fee]

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

AQ-4 Copy of Permit Onsite

A copy of the permit shall be maintained readily available at all times on the operating premises. [District Rule 200.D]

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

AQ-5 Report Violation of Emission Standard

Any violation of any emission standard to which the stationary source is required to comply, as indicated by the records of the monitoring device, shall be reported by the operator of the source to the district within 96 hours after such occurrence. The district shall, in turn, report the violation to the state board within five working days after receiving the report of the violation from the operator. [Cal H&S § 42706]

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

AQ-6 Severability Clause

If any provision of this permit is found invalid, such finding shall not affect any remaining provisions. [District Rule 107]

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

AQ-7 Right to Revise Permit

The provisions of this permit may be modified by the District if it determines the stipulated conditions are inadequate. [District Rule 210.C]

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

AQ-8 Breakdown (or Emergency) Reporting Conditions

A breakdown condition means an unforeseeable failure or malfunction of: 1) any air pollution control equipment or related operating equipment which causes a violation of any emission limitation or restriction prescribed by this permit or District rules and regulations, or by State law, or 2) any in-stack continuous monitoring equipment.

A. The permittee shall comply with the breakdown requirements of District Rule 403 (Breakdown), which shall include notifying the Air Pollution Control Officer of a breakdown condition within an hour of detection, unless it can be demonstrated that a longer reporting period is necessary -- not to exceed two (2) days.

B. Notification shall identify the time, location, equipment involved, and to the extent possible the cause of the breakdown and steps taken to correct the breakdown condition.

C. Within one (1) week after the breakdown occurrence, the permittee shall submit a written report to the Air Pollution Control Officer which includes: date of correction of the breakdown, determination of the

cause of the breakdown, corrective measures to prevent a recurrence, an estimate of the emissions caused by the breakdown condition, and pictures of the failed equipment, if available.

D. Breakdown conditions shall not persist longer than 24 hours or the end of the production run, whichever is sooner, except for continuous monitoring equipment, for which the period shall be ninety-six (96) hours, unless the permittee obtains an Emergency Variance pursuant to District Rule 617. [District Rule 403]

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

FACILITY OPERATING CONDITIONS

AQ-9 Visible Emissions Opacity Limit

Visible emissions from any source shall not exceed a Ringelmann 1 (20% opacity) for a period or periods aggregating more than three minutes in any one hour. [District Rule 400]

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

AQ-10 Unit Emission Limits

To demonstrate consistency with the ambient air quality modeling and the screening health risk assessment provided in the application for certification to the California Energy Commission, the pound per hour equipment emission rate limits in Table 1 shall apply. Except during the commissioning period, startup/shutdown conditions and standby conditions, the pound per million Btu limits shall also apply. Compliance with these lb/MMBtu limits will also ensure compliance with the limits in the applicable New Source Performance Standards (NSPS).

Table 1: Criteria pollutant emission limits per unit in pounds per hour (pounds per million Btu)

Pollutant	Auxiliary Boiler	Nighttime Preservation Boiler	Emergency Backup Engine	Emergency Fire Pump Engine
NOx as NO_2	2.74 (0.0110)	0.17 (0.0110)	38.4	1.3
CO	4.55 (0.0183)	0.55 (0.0366)	20.8	1.15
VOC as CH_4	1.34 (0.0054)	0.08 (0.0053)	1.3	0.08
PM10/PM2.5	1.25 (N/A)	0.08 (N/A)	1.2	0.07
SO_2	0.52 (0.0021)	0.03 (0.0021)	0.04	0.003

Verification: The project owner shall submit to the CPM data showing compliance with the limits of this condition as part of the Quarterly Operation Report required under **AQ-SC9**.

AQ-11 Combined Plant-wide Daily Emission Limits

A. "Plant-wide" shall mean this Solar 1 Power Plant facility, GBUAPCD № 1604-00-11, plus the adjacent Solar 2 Power Plant and Common Area facilities (permitted separately, GBUAPCD № 1605-00-11 and 1606-00-11, respectively).

B. The total plant-wide combined emissions from the auxiliary and nighttime preservation boilers, emergency and fire pump engines shall not exceed the limits in Table 2.

Table 2: Criteria pollutant emission limits in pounds per day

Pollutant	All Fuel Burning Equipment
NOx as NO_2	116.0
CO	156.1
VOC as CH_4	37.8
$PM_{10}/PM_{2.5}$	21.3
SO_2	7.4

C. Compliance demonstration with these plant-wide limits shall entail the monitoring, recordkeeping and reporting requirements specified later in this permit.

D. Compliance with the NOx limit shall be demonstrated via the use of a plant-wide NOx Predictive Emission Monitoring System (PEMS), in accordance with condition of certification AQ-18, that totals both power plants' boiler emission rates.

Verification: The project owner shall submit a letter annually confirming compliance with this condition, to the CPM. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S. EPA or CPM.

AQ-12 Boiler Fuel Use Limits

The total natural gas fuel consumption, expressed as heat input rates, shall not exceed 3,440 MMBtu/day or 746,400 MMBtu/year for combustion in the burners of all auxiliary and nighttime preservation boilers in the Solar 1 facility plus the adjacent Solar 2 facility (permitted separately, GBUAPCD №1605-05-11).

Verification: The project owner shall submit to the CPM the boiler fuel use data demonstrating compliance with this condition as part of the Quarterly Operation Report.

AQ-13 Toxic Hot Spots Program (AB 2588)

In lieu of an emissions inventory plan, the District accepts the screening health risk assessment provided in the Application for Certification to the California Energy Commission. The combined Solar 1 and Solar 2 facilities shall be categorized under AB 2588 as "Intermediate Level" and

shall meet the reporting requirements under Section V of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program.

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

BOILER SPECIFICATIONS AND NSPS STANDARDS

AQ-14 Boiler Specifications

Each 249 MMBtu/hr auxiliary boiler and each 15 MMBtu/hr nighttime preservation boiler shall be equipped with low-NOx burners, 9 ppmvd NOx at 3% O_2 or less at loads exceeding 25% maximum continuous rating (MCR), and flue gas recirculation (FGR). The boilers shall meet all specifications stated in the permit application, including stack dimensions and pollutant emission rates.

Verification: As part of the Annual Compliance Report (**COMPLIANCE-7**), the project owner shall include information on the date, time, and duration of any violation of this permit condition.

AQ-15 New Source Performance Standards (NSPS) for Auxiliary Boiler

Each auxiliary boiler shall comply with the requirements of 40 CFR 60 Subpart Db – NSPS for Industrial-Commercial-Institutional Steam Generating Units. The boiler shall meet the following emission standards at all times except during periods of startup, shutdown, or malfunction:

- NOx: 0.20 lb/MMBtu (30-day average) [40 CFR §60.44b(a)]
- SO2: 0.20 lb/MMBtu [40 CFR §60.42b(k)]

Verification: The project owner shall complete and submit to the CPM a compliance plan that provides a list of the 40 CFR 60 Subpart Db plans, tests, and recordkeeping requirements and their compliance schedule, dates as applicable for the HHSEGS Boilers 1, and 2 at least 30 days prior to first fire of the boilers or earlier as necessary for compliance with Subpart Db.

AQ-16 New Source Performance Standards (NSPS) for Nighttime Preservation Boiler

Each nighttime preservation boiler shall comply with the requirements of 40 CFR 60 Subpart Dc – NSPS for Small Industrial-Commercial-Institutional Steam Generating Units. The SO_2 emission limit in this subpart does not apply because the unit is rated below 30 MMBtu/hr.

Verification: The project owner shall complete and submit to the CPM a compliance plan that provides a list of the 40 CFR 60 Subpart Dc plans, tests, and recordkeeping requirements and their compliance schedule dates as applicable for the boilers on HHSEGS Solar Plant 1, and HHSEGS Solar Plant 2 at least 30 days prior to first fire of the boilers or earlier as necessary for compliance with Subpart Dc.

BOILER MONITORING CONDITIONS

AQ-17 Fuel Type and Flow Monitoring

A. The burners for the auxiliary and nighttime preservation boilers shall be fueled with natural gas that meets the standards of the California Public Utilities Commission (CPUC).

B. Each boiler shall be equipped with a continuous flow monitoring system to measure and record fuel consumption in million standard cubic feet per hour (MMscf/hr).

Verification: As part of the Annual Compliance Report (**COMPLIANCE-7**), the project owner shall include proof that only pipeline quality natural gas that meets Public Utilities Commission standards are used for the boilers. The Annual Compliance Report shall also report fuel used in each boiler.

AQ-18 Boiler Predictive NOx Emission Rate Monitoring Plan

A. As an element of the PEMS required by condition of certification **AQ-11.D**, the permittee shall estimate the auxiliary boiler emissions by continuously monitoring parameters indicative of emissions and maintaining records of the amount of natural gas combusted. The permittee shall monitor the auxiliary boiler operating conditions and predict NOx emission rates as specified in a plan that shall:

(1) Be submitted to the District within 360 days of initial startup in accordance with 40 CFR Subpart Db §60.49b(c) and §60.49b(g);

(2) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NOx emission rates (i.e., lb/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas O_2 level);

(3) Include the data and information that the permittee used to identify the relationship between NOx emission rates and these operating conditions; and

(4) Identify how these operating conditions, including steam generating unit load, will be monitored on an hourly basis by the permittee during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee under 40 CFR §60.49b(g). [40 CFR Subpart Db §60.48b(d)]

B. If the permittee elects to estimate NOx emissions from the Nighttime Preservation Boilers using the pound per hour emission limit in Table 1, then the Plan may require continuous monitoring of only operating hours and fuel use for the Nighttime Preservation Boilers.

Verification: This initial plan shall be submitted to the district for approval, and the CPM for review, within 360 days of the initial startup. Any proposed changes to a district-approved plan shall include subsequent test results, operating parameters, analysis, and any other pertinent information to support the proposed changes. The district must approve any emissions estimation plan or revision for estimated NOx emissions to be considered valid.

BOILER TESTING CONDITIONS

AQ-19 Initial Boiler Testing

Initial performance testing shall be completed on each auxiliary and nighttime preservation boiler to demonstrate compliance with the emission limits specified in condition of certification **AQ-10** at each boiler's maximum achievable production rate.

A. The initial performance test is to be scheduled within 60 days after achieving the maximum continuous rating (MCR) at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. [§60.45b and 60.46b]

B. The permittee shall provide safe and accessible sampling ports that comply with California Industrial Safety Orders and Uniform Building Code and 40 CFR 60, Appendix A, Test Method 1.

C. A test protocol must be submitted to the Air Pollution Control District not later than 30 days before the proposed test date. This test protocol shall be approved by the District before testing begins and shall include the following, or other District-approved methods:

- PM10 emissions: EPA Method 5, Methods 201/202 or ARB Method 5
- NOx emissions: EPA Method 7, 7A, 7E
- SO_2 emissions: EPA Method 6, 6A, 6B or 6C
- CO emissions: EPA Method 10
- VOC emissions: EPA Method 25A

D. A copy of the test results shall be submitted to the District within 60 days following test completion. [District Rule 200.C, and Cal H&S Code § 44340]

Verification: The project owner shall notify the District and the CPM within thirty (30) working days before the execution of the compliance test required in this

condition. The test results shall be submitted to the district and to the CPM within 60 days of the date of the tests.

AQ-20 Emergency Backup Generator Engine

Each emergency backup generator shall be powered by a Tier 2, diesel-fueled, Caterpillar 3516C SCAC, 3,633 hp at 1,800 rpm, EPA Family ACPXL78.1T2E, ARB Executive Order U-R-001-0398-1, or an equivalent ARB-certified engine that meets the current EPA Tier standards for the given power range.

Verification: The project owner shall submit the emergency generator specifications to the CPM for review and approval at least 30 days prior to purchasing the engines. ~~for review and approval.~~ The emergency generator specifications shall demonstrate that the engines meet NSPS and ARB ATCM emission limit requirements at the time of engine purchase. The CPM shall notify the project owner within 15 days if the engines are not approved, along with the reason for disapproval. If the CPM does not provide notification of disapproval within 15 days of receipt of the emergency generator specifications, the engines shall be deemed approved.

AQ-21 Emergency Fire Pump Engine

Each emergency fire pump shall be powered by a Tier 3, diesel-fueled, Cummins CFP7E-F30, 200 hp at 2,100 rpm, EPA Family ACEXL0409AAB, ARB Executive Order U-R-002-0516, or an equivalent ARB-certified engine that meets the current EPA Tier standards for the given power range.

Verification: The project owner shall submit the emergency engine specifications to the CPM for review and approval at least 30 days prior to purchasing the engines. ~~for review and approval.~~ The emergency engine specifications shall demonstrate that the engines meet NSPS and ARB ATCM emission limit requirements at the time of engine purchase. The CPM shall notify the project owner within 15 days if the engines are not approved, along with the reason for disapproval. If the CPM does not provide notification of disapproval within 15 days of receipt of the emergency engine specifications, the engines shall be deemed approved.

AQ-22 Airborne Toxics Control Measure (also applies to Hidden Hills Common Area)

The permittee shall operate the diesel emergency backup generator and fire pump engines in compliance with the California Code of Regulations, Title 17 (17 CCR) § 93115.

Verification: The project owner shall submit the engine specifications to the CPM for review and approval at least 30 days prior to purchasing the engines. ~~for review and approval.~~ The engine specifications shall demonstrate~~ing~~ that the engines meet NSPS and ARB ATCM emission limit requirements at the time of engine purchase. The CPM shall notify the project owner within 15 days if the engines are not approved, along with the reason for disapproval. If the CPM does not provide notification of disapproval within 15 days of receipt of the emergency engine specifications, the engines shall be deemed approved.

AQ-23 Particulate Matter Limit (also applies to Hidden Hills Common Area) Each emergency engine shall not discharge into the atmosphere particulate matter in excess of 0.3 grains per dry standard cubic foot of exhaust gas. [Rule 404-A].

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

AQ-24 ARB Diesel Fuel (also applies to Hidden Hills Common Area) Each engine shall be fueled with ARB diesel fuel with 15 parts-per-million sulfur content by weight or less, or an alternative diesel fuel that meets the requirements of the Standard of Motor Vehicle Fuel found in Title 13, CCR (13 CCR) § 2281. The amount of sulfur dioxide exhausted to the atmosphere shall not exceed 0.2% by volume. The permittee shall keep records of the composition of purchased fuel. [District Rules 210 and 416; 17 CCR § 93115.5(a)(1)]

Verification: During site inspection, the project owner shall make all records and reports available to the district, ARB, U.S. EPA or CPM.

AQ-25 Hour Meter Required (also applies to Hidden Hills Common Area) A non-resettable totalizer elapsed time meter shall be installed and maintained on each engine to indicate the cumulative hours of engine operation. [District Rule 210.A, 17 CCR § 93115].

Verification: At least thirty (30) days prior to the installation of the engine, the project owner shall provide the district and the CPM the specification of the hour timer.

AQ-26 Non-Emergency Use Limitation (also applies to Hidden Hills Common Area)

A. Each emergency backup generator engine shall be allowed to operate up to 50 hours per year for maintenance and testing purposes. Operation of the engine beyond the 50 hours shall be allowed only by the events as defined in condition of certification **AQ-27** for what constitutes emergency use. [District Rule 210.A, 17 CCR § 93115.6(a)(3)(A)].

B. Each fire pump engine shall not operate more than the number of hours (up to 30 hours per year) necessary to comply with the testing requirements of the National Fire Protection Association (NFPA). [District Rule 210.A, 17 CCR § 93115.6(a)(4)(A)].

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

AQ-27 What Constitutes Emergency Use (also applies to Hidden Hills Common Area)
Emergency use of the engines is not limited and is defined in 17 CCR § 93115 as providing electrical power or mechanical work during any of the following events and subject to the following conditions that:

A. the failure or loss of all or part of normal electrical power service or normal natural gas supply to the facility:

(1) which is caused by any reason other than the enforcement of a contractual obligation the permittee has with a third party or any other party; and

(2) which is demonstrated by the permittee to the district APCO's satisfaction to have been beyond the reasonable control of the owner or operator;

B. the failure of a facility's internal power distribution system:

(1) which is caused by any reason other than the enforcement of a contractual obligation the permittee has with a third party or any other party; and

(2) which is demonstrated by the permittee to the district APCO's satisfaction to have been beyond the reasonable control of the owner or operator.

C. the pumping of water for fire suppression or protection;

D. the pumping of water to maintain pressure in the water distribution system for the following reasons:

(1) a pipe break that substantially reduced water pressure; or

(2) high demand on the water supply system due to high use of water for fire suppression; or

(3) the breakdown of electric-powered pumping equipment at sewage treatment facilities or water delivery facilities.

[District Rule 210.A, 17 CCR § 93115].

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

AQ-28 Required Records for Emergency Engines (also applies to Hidden Hills Common Area)

The permittee shall keep a monthly log of usage that shall list and document the nature of use for each of the following:

A. emergency use hours of operation;

B. maintenance and testing hours of operation;

a. hours of operation for emission testing to show compliance with the applicable standard;

C. initial start-up testing hours;

D. hours of operation for all uses other than those specified above; and

E. the fuel used.

(1) For engines operated exclusively on ARB Diesel Fuel, the owner or operator shall document the use of ARB Diesel Fuel through the retention of fuel purchase records indicating that the only fuel purchased for supply to an emergency standby engine was ARB Diesel Fuel; or

(2) For engines operated on any fuel other than ARB Diesel Fuel, fuel records demonstrating that the only fuel purchased and added to an emergency standby engine or engines, or to any fuel tank directly attached to an emergency standby engine or engines, meets the requirements of section 93115.5(b).

[District Rule 210.A, 17 CCR § 93115.10(g)(1)].

Verification: The project owner shall submit records required by this condition that demonstrating compliance with the sulfur content and engine use limitations of conditions **AQ-24** and **AQ-27** in the Annual Compliance Report, including a photograph showing the annual reading of engine hours. The project owner shall make the site available for inspection of records by representatives of the district, ARB, and the CPM.

AQ-29 Record Retention (also applies to Hidden Hills Common Area)
Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to District staff within 5 working days from request. [Rule 210.A, 17 CCR § 93115.10(g)(2)].

Verification: The project owner shall submit records required by this condition that demonstrating compliance with the sulfur content and engine use limitations of conditions **AQ-24,** and **AQ-27** in the Annual Compliance Report, including a photograph showing the annual reading of engine hours. The project owner shall make the site available for inspection of records by representatives of the district, ARB, and the CPM.

PARTICULATE MATTER MITIGATION CONDITIONS

AQ-30 Fugitive Dust Mitigation
The permittee shall take reasonable precautions during construction activities to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the HHSEGS property line, in accordance with the requirements for dust control in Rule 401.A. The District deems the California Energy Commission (CEC) staff conditions of certification (HHSEGS) **AQ-SC1** through **AQ-SC5** for construction and operation mitigation methods to be reasonable precautions under Rule 401. The

permittee shall submit the Air Quality Construction Mitigation Plan, required by **AQ-SC2** to the District after its approval by the CEC.

Verification: The permittee shall submit the Air Quality Construction Mitigation Plan, required by **AQ-SC2** to the District after its approval by the CEC. The permittee shall make available to the District, upon request, copies of the CEC-required MCR containing documentation of the actions taken to comply with these conditions.

FACILITY RECORDKEEPING & REPORTING CONDITIONS

AQ-31 Natural Gas Heat Input Records

Records for demonstrating compliance with the plant-wide natural gas combustion heat input, required by condition of certification **AQ-12**, shall be presented in MMBtu/day, MMBtu/month and MMBtu per rolling 12-month period.

Verification: The project owner shall submit to the CPM the boiler fuel use data demonstrating compliance with this condition as part of the Quarterly Operation Report.

AQ-32 Plant-wide Emission Records

Emission records for the plant-wide NOx PEMS, required by condition of certification AQ-11, shall be presented in pounds per hour (lb/hr), pounds per day (lb/day) and pounds per million Btu (lb/MMBtu) for each individual boiler in the Solar 1 and Solar 2 facilities. The sum total of NOx for all boilers shall be presented in pounds per day (lb/day) for each calendar day, midnight to midnight. Data obtained to estimate boiler NOx emissions shall be presented as specified in the plant-wide NOx PEMS plan required by condition of certification AQ-18.

Verification: The project owner shall submit to the CPM the boiler fuel use data demonstrating compliance with this condition as part of the Quarterly Operation Report.

AQ-33 Monitoring Record Retention

Required recordkeeping information shall be retained by the permittee in a form suitable for inspection for a period of at least two (2) years from the end of the calendar year of the journal entry. [Rule 206.B, Cal H&S Code § 42705]

Verification: The project owner shall submit records required by this condition that demonstrating compliance with the sulfur content and engine use limitations of conditions **AQ-24,** and **AQ-27** in the Annual Compliance Report, including a photograph showing the annual reading of engine hours. The project owner shall make the site available for inspection of records by representatives of the district, ARB, and the CPM.

AQ-34 Reporting of Monitoring Records

All monitoring records shall be made immediately available to the District staff upon request.

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

Conditions Applicable to Hidden Hills Common Area (GBUAPCD ATC Number 1606-00-11)

GENERAL CONDITIONS

General conditions **AQ-1** and **AQ-3** to **AQ-8** for Hidden Hills Solar 1 Power Plant and Solar 2 Power Plant are also applicable for the Common Area.

FACILITY OPERATING CONDITIONS

AQ-35 Unit Emission Limits

To demonstrate consistency with the ambient air quality modeling and the screening health risk assessment provided in the Application for Certification to the California Energy Commission, the pound per hour equipment emission rate limits in Table 1 shall apply.

Table 1: Common Area Emission Limits in pounds per hour

Pollutant	Emergency Backup Engines	Emergency Fire Pump Engines
NOx as NO_2	2.6	1.3
CO	2.28	1.15
VOC as CH_4	0.15	0.08
$PM_{10}/PM_{2.5}$	0.13	0.07
SO_2	0.004	0.003

Verification: The project owner shall submit to the CPM data showing compliance with the limits of this condition as part of the Quarterly Operation Report

DIESEL BACKUP GENERATOR AND FIRE PUMP ENGINE CONDITIONS

AQ-36 Visible Emissions Opacity Limit

Visible emissions from each engine shall not exceed a Ringelmann 1 (20% opacity) for a period or periods aggregating more than three minutes in any one hour. [District Rule 400]

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

AQ-37 Emergency Backup Generator Engine

The emergency backup generator (Unit EG1C) shall be powered by a Tier 3, diesel-fueled, Caterpillar C9 ATAAC, 398 hp at 1,800 rpm, EPA Family ACPXL08.8ESX, ARB Executive Order U-R-001-0373, or an equivalent ARB-certified engine that meets the current EPA Tier standards for the given power range.

Verification: During site inspection, the project owner shall make all records and reports available to the district, ARB, EPA or CPM.

AQ-38 Emergency Fire Pump Engine

The emergency fire pump (Unit FP1C) shall be powered by a Tier 3, diesel-fueled, Cummins CFP7E-F30, 200 hp at 2,100 rpm, EPA Family ACEXL0409AAB, ARB Executive Order U-R-002-0516, or an equivalent ARB-certified engine that meets the current EPA Tier standards for the given power range.

Verification: During site inspection, the project owner shall make all records and reports available to the district, ARB, EPA or CPM.

Conditions **AQ-22** to **AQ-29** also apply to the Hidden Hills Common Area.

Biological Resources

DESIGNATED BIOLOGIST SELECTION AND QUALIFICATIONS[1]

BIO-1 The project owner shall submit the resume of the proposed Designated Biologist(s), with at least three references and contact information, to the Energy Commission Compliance Project Manager (CPM) for approval. Multiple Designated Biologists may be authorized for the project as appropriate to accommodate project staffing and scheduling needs and qualifications requirements for Designated Biologist duties. Each~~The~~ Designated Biologist authorized to oversee tortoise activities must meet all qualifications as stated within the U.S. Fish and Wildlife Service's (USFWS's) Biological Opinion (BO) for the HHSEGS project. Those qualifications at a minimum shall include at least three references and contact information.

The Designated Biologist must meet the following minimum qualifications:

1. Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;
2. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society;
3. Have at least one year of field experience with biological resources found in or near the project area;
4. Meet the current USFWS Authorized Biologist qualifications criteria (USFWS 2008), demonstrate familiarity with protocols and guidelines for the desert tortoise, and be approved by the USFWS; and
5. Possess a California ESA Memorandum of Understanding pursuant to Section 2081(a) for desert tortoise.

Verification: No less than ~~9~~30 days prior to the start of any project-related ground disturbing activity, the project owner shall provide the CPM and CDFG a copy of the Commission Designated Biologists (~~= USFWS Authorized Biologist~~) selections for the HHSEGS project and a copy of the above specified qualifications or the qualifications as required by the federal Biological Opinion. The project owner shall submit the specified information to the CPM and CDFG within 1 (one) week of receipt from the USFWS. No site or related ground disturbing activities shall

[1] USFWS <www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/dt> designates biologists who are approved to handle tortoises as "Authorized Biologists." Such biologists have demonstrated to USFWS that they possess sufficient desert tortoise knowledge and experience to handle and move tortoises appropriately, and have received USFWS approval. Authorized Biologists are permitted to then approve specific monitors to handle tortoises, at their discretion. The California Department of Fish and Game (CDFG) must also approve such biologists, potentially including individual approvals for monitors approved by the Authorized Biologist. Designated Biologists are the equivalent of Authorized Biologists. Only Designated Biologists and certain Biological Monitors who have been approved by the Designated Biologist would be allowed to handle desert tortoises.

commence until the appropriate number of approved Designated Biologist(s) is/are available to be on site.

If a Designated Biologist needs to be replaced, copies of the above specified information of the proposed replacement, as well as the USFWS new designated Authorized Biologists ~~(= Commission title of Designated Biologist)~~ for the HHSEGS project must be submitted to the CPM and CDFG within 48 hours of receipt of USFWS's authorization of a new Designated Biologist for the HHSEGS project site. In an emergency, the project owner shall immediately notify the CPM, CDFG, and USFWS to discuss the qualifications and approval of a short-term replacement, and/or enact any emergency provisions as specified in the USFWS Biological Opinion for the HHSEGS project.

DESIGNATED BIOLOGIST DUTIES

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

1. Advise the project owner's Construction and Operation Managers on the implementation of the biological resources conditions of certification;
2. Approve and submit the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) to the CPM;
3. Be available to supervise, conduct and coordinate mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as special-status species or their habitat;
4. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
5. Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way;
6. Inspect heliostat fields after rain events for presence of standing water in planned retention area and document the intensity and duration of the rain event via rain collectors. At least two collectors shall be placed within the project boundaries, one in each solar field, and marked on all project planning maps. The perimeter of the ponded area shall be

mapped with GPS, and all above information, including readings of rain collectors and photographic documentation must be included within Monthly Compliance Reports;

7. Determine and oversee implementation of remedial actions any time water has been observed standing onsite for 24 hours. The Designated Biologist shall initiate remedial methods no later than 24 hours after standing water has been observed on the project site. Remedial methods may include grading, pumping spraying, tilling, or any other means to disperse or ensure evaporation and/or absorption of standing water. Other remedial efforts may be determined in conjunction with CPM review and approval. Descriptions of remedial efforts, including photo documentation, and discussion of results of remedial efforts must be included in the Monthly Compliance Report;
8. Notify the project owner and the CPM of any non-compliance with any biological resources condition of certification;
9. Respond directly to inquiries of the CPM and Biological Resources Staff regarding biological resource issues;
10. Respond immediately to reports of onsite kit fox mortality or injury, and to the extent possible, reports of dead or injured kit fox offsite and immediately adjacent the project boundaries or on ~~access roads~~ Old Spanish Trail Highway within one mile of the project site, notify the CDFG and CPM within 24 hours, and undertake restorative and/or disease prevention actions as specified within the American Badger and Kit Fox Management Plan, or as directed by the CDFG, with copies of all CDFG guidance provided to the CPM within 24 hours of receipt;
11. Maintain compliance with the provisions of the Avian, Bat, and Golden Eagle Protection Plans, USFWS Golden Eagle Conservation Permit (if issued), and/or any other directions from the USFWS, CDFG, or CPM with respect to golden eagle, and special-status birds and bats.
12. Maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the Monthly Compliance Report and the Annual Compliance Report;
13. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and USFWS guidelines on desert tortoise surveys and handling procedures <www.fws.gov/ventura/speciesinfo/protocols_guidelines>, and; and
14. Maintain the ability to be in regular, direct communication with the CPM and representatives of CDFG and USFWS including notifying these agencies of dead or injured listed species and reporting special-status species observations to the California Natural Diversity Data Base.

Verification: The Designated Biologist shall submit in the Monthly Compliance Report to the CPM and copies of all written reports and summaries that document biological resources compliance activities. If actions may affect biological resources during operation a Designated Biologist shall be available for monitoring and reporting. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless his/her duties cease, as approved by the CPM.

BIOLOGICAL MONITOR(S) SELECTION AND QUALIFICATIONS

BIO-3 The project owner's approved Designated Biologist shall submit the resume, at least three references, and contact information of the proposed Biological Monitor(s) to the CPM. The resume shall demonstrate, to the satisfaction of the CPM the appropriate education and experience to accomplish the assigned biological resource tasks. The Biological Monitor is the equivalent of the USFWS designated Desert Tortoise Monitor (USFWS 2008).

Biological Monitor(s) training by the Designated Biologist shall include familiarity with the conditions of certification, BRMIMP, WEAP, and USFWS guidelines on desert tortoise surveys and handling procedures <www.fws.gov/ventura/speciesinfo/protocols_guidelines>.

Verification: The project owner shall submit the specified information to the CPM for approval at least 30 days prior to the start of any project-related site disturbance activities. The Designated Biologist shall submit a written statement to the CPM confirming that individual Biological Monitor(s) has been trained including the date when training was completed. If additional biological monitors are needed during construction the specified information shall be submitted to the CPM and for approval at least 10 days prior to their first day of monitoring activities, or within 24 hours of receipt of USFWS decision approving acceptability as tortoise monitors, whichever comes sooner.

BIOLOGICAL MONITOR DUTIES

BIO-4 The Biological Monitors shall assist the Designated Biologist in conducting surveys and in monitoring of mobilization, ground disturbance, grading, construction, operation, and closure activities. The Designated Biologist shall remain the contact for the project owner and the CPM.

Verification: The Designated Biologist shall submit in the Monthly Compliance Report to the CPM copies of all written reports and summaries that document biological resources compliance activities, including those conducted by Biological Monitors. If actions may affect biological resources during operation of the project, a Biological Monitor, under the supervision of the Designated Biologist, shall be available for monitoring and reporting. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless their duties cease, as approved by the CPM after receiving verification from the USFWS that their services are not required for compliance with federal permits, with a copy of the USFWS decision document provided to the CPM.

DESIGNATED BIOLOGIST AND BIOLOGICAL MONITOR AUTHORITY

BIO-5 The project owner's construction/operation manager shall act on the advice of the Designated Biologist and Biological Monitor(s) to ensure conformance with the biological resources conditions of certification.

The Designated Biologist shall have the authority to immediately stop any activity that is not in compliance with these conditions and/or order any reasonable measure to avoid take of an individual of a listed species. If required by the Designated Biologist and Biological Monitor(s) the project owner's construction/operation manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist. The Designated Biologist shall:

1. Require a halt to all activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued;
2. Inform the project owner and the construction/operation manager when to resume activities; and
3. Notify the CPM and CDFG within 24 hours if there is a halt of any activities and advise them of any corrective actions that have been taken or will be instituted as a result of the work stoppage.

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

Verification: The project owner shall ensure that the Designated Biologist or Biological Monitor notifies the CPM immediately (and no later than the morning following the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities. The project owner shall notify the CPM of the circumstances and actions being taken to resolve the problem.

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

WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

BIO-6 The Designated Biologist shall develop and implement project-site-specific Worker Environmental Awareness Program (WEAP). The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor’s employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure. The WEAP shall:

1. Be developed by or in consultation with the Designated Biologist, be responsive of CPM, and/or input CDFG, and consist of an on-site or training center presentation in which supporting written material and electronic media, including photographs of protected species, is made available to all participants. The training presentation shall be made available in the language best understood by the participants;
2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, and explain the reasons for protecting these resources; provide information to participants that no snakes, reptiles, or other wildlife shall be intentionally harmed (unless posing a reasonable and immediate threat to humans);
3. Place special emphasis on desert tortoise, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures;
4. Provide pictures of desert tortoise, golden eagles, American badger, kit fox, and burrowing owl, provide information on sensitivity to human activities, legal protection, reporting requirements, and how to identify construction avoidance zones for these species as marked by flagging, staking, or other means, also describe the protections for bird nests and provide information as described above;
5. Provide overview [for operational staff] of potential impacts to avian species from concentrated solar flux created during operations phase, reporting requirements, and protection measures;
6. Include a discussion of fire prevention measures to be implemented by workers during Project activities and request workers to: a) use designated smoking areas and dispose of cigarettes and cigars appropriately and not leave them on the ground or buried, b) keep vehicles on graveled or well-maintained roads at all times, unless performing prescribed construction activities, to prevent vehicle exhaust systems from coming in contact with roadside weeds, c) use and maintain approved spark arresters on all power equipment, and d) keep a fire extinguisher on hand at all times;
7. Present the meaning of various temporary and permanent habitat protection measures;
8. Identify whom to contact if there are further comments and questions about the material discussed in the program; and
9. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines.

The specific program can be administered by a competent individual(s) acceptable to the Designated Biologist, and documented within the Monthly Compliance Report.

Verification: At least 60 days prior to the start of any project-related site disturbance activities, the project owner shall provide to the CPM (for review and approval, and to the CDFG and/or USFWS for review and comment), electronic copies of the WEAP and all supporting written materials and/or electronic media prepared by the Designated Biologist and a resume of the person(s) administering the program. At least 30 days prior to the start of any project-related ground disturbing activities, the project owner will provide two copies of the final WEAP to the CPM and implement the training for all workers.

The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.

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

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

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

BIOLOGICAL RESOURCES MITIGATION IMPLEMENTATION AND MONITORING PLAN (BRMIMP)

BIO-7 – Condition language not agreed upon by staff and applicant.

GENERAL IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-8 The project owner shall undertake the following measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to biological resources:

1. Limit Disturbance Area. The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to construction activities in coordination ~~consultation~~ with the Designated Biologist. All disturbances, vehicles, and equipment shall be confined to the flagged areas.

2. Minimize Road Impacts. New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning around will do so within the planned impact area or in

previously disturbed areas. Where new access is required outside of existing roads (e.g. new spur roads) or the construction zone, the route will be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.

3. Minimize Traffic Impacts. Vehicular traffic during project construction and operation shall be confined to existing routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be conducted in coordination with the Designated Biologist. With the exception of the dirt roads that run between Tecopa Road and the project site, overland vehicle traffic shall be prohibited without coordination with the Designated Biologist. The speed limit shall not exceed the miles per hour limit as described in the Biological Opinion and as specified in Condition AQ-SC-3. ~~25 miles per hour within the project area, on maintenance roads for linear facilities, or on dirt access roads to the HHSEGS site.~~ Vehicles shall abide by posted speed limits on paved roads.
4. Monitor During Construction. The Designated Biologist or Biological Monitor shall be present at the construction site during all project activities that have potential to disturb soil, vegetation, and wildlife. In areas that could support desert tortoise or any other sensitive wildlife species, the USFWS-approved Designated Biologist or Biological Monitor shall walk immediately ahead of equipment during brushing and grading activities.
5. Salvage Wildlife during Clearing and Grubbing. The Designated Biologist or Biological Monitor shall salvage and relocate special status ~~sensitive~~ wildlife during clearing and grading operations. The species shall be salvaged when conditions will not jeopardize the health and safety of the monitor and relocated off-site habitat.
6. Avoid Roosting Bats. The project owner shall minimize disturbance to roosting bats. If night or day roosting bats are identified in project structures they shall not be disturbed and a 100 foot non disturbance buffer shall be placed around the bats. If the Designated Biologist, in consultation with a qualified bat biologist, determines roosting bats consist of a non-breeding roost the individuals shall be safely evicted, under the direction of a qualified bat biologist. The CPM and CDFG shall be notified of any bat evictions within 48 hours. Maternity colonies shall not be disturbed. The CPM shall be notified within 48 hours of any active nurseries that are identified within the construction area.
7. Minimize Impacts of Transmission/Pipeline Alignments, Roads, and Staging Areas. For construction activities ~~outside of the plant site~~ within California (transmission line, pipeline alignments) access roads, pulling sites, and storage and parking areas shall be designed, installed, and maintained with the goal of minimizing impacts to native plant communities and sensitive biological resources. Transmission

lines and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) *Suggested Practices for Avian Protection on Power Lines* (APLIC 2006)and *Mitigating Bird Collisions with Power Lines* (APLIC 2004)to reduce the likelihood of bird electrocutions and collisions.

8. Avoid Use of Toxic Substances. Road surfacing and sealants as well as soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants. Anticoagulants shall not be used for rodent control. Only herbicides approved by the California Department of Pesticide Regulation (under the California Department of Environmental Protection) ~~Pre-emergents and other herbicides with documented residual toxicity~~ shall ~~not~~ be used. Herbicides shall be applied in conformance with federal, State, and local laws and according to the guidelines for wildlife-safe use of herbicides in **BIO-18** (Weed Management Plan).
9. Minimize Lighting Impacts. Facility lighting shall be designed, installed, and maintained to prevent side casting of light ~~towards wildlife habitat~~.
10. Cap Vertical Pipes. All vertical pipes greater than 4-inches in diameter shall be capped to prevent the entrapment of birds or bats.
11. Avoid Vehicle Impacts to Desert Tortoise. Parking and storage shall occur within the area enclosed by desert tortoise exclusion fencing to the extent feasible. No vehicles or construction equipment parked outside the fenced area shall be moved prior to an inspection of the ground beneath the vehicle for the presence of desert tortoise. If a desert tortoise is observed, it shall be left to move on its own. If it does not move within 15 minutes, a Designated Biologist or Biological Monitor under the Designated Biologist's direct supervision may remove and relocate the animal to a safe location if temperatures are within the range described in the USFWS' 2009 Desert Tortoise Field Manual (http://www.fws.gov/ventura/speciesinfo/protocols_guidelines). All access roads outside of the fenced project footprint shall be delineated with temporary desert tortoise exclusion fencing on either side of the access road, unless otherwise authorized by the CPM.
12. Avoid Wildlife Pitfalls.
    a. Backfill Trenches. At the end of each work day, the Designated Biologist shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access, or fully enclosed with desert tortoise-exclusion fencing. All trenches, bores, and other excavations outside the areas permanently fenced with desert tortoise exclusion fencing shall be inspected periodically, but no

less than three times, throughout the day and at the end of each workday by the Designated Biologist or a Biological Monitor. Should a tortoise or other wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual as described in the Desert Tortoise Relocation/Translocation Plan. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.

b. Avoid Entrapment of Desert Tortoise. Any construction pipe, culvert, or similar structure with a diameter greater than 3 inches, stored less than 8 inches aboveground, and within desert tortoise habitat (i.e., outside the permanently fenced area) for one or more nights, shall be inspected for tortoises before the material is moved, buried, or capped. As an alternative, all such structures may be capped before being stored outside the fenced area, or placed on pipe racks. These materials would not need to be inspected or capped if they are stored within the permanently fenced area after the clearance surveys have been completed.

13. Minimize Standing Water. Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles, which could attract desert tortoises and common ravens to construction sites. A Biological Monitor shall patrol these areas to ensure water does not puddle and attract desert tortoise, common ravens, and other wildlife to the site and shall take appropriate action to reduce water application where necessary.

14. Minimize Standing Water in the Retention Basin. Water shall be prohibited from collecting or pooling for more than 24 hours after a storm event within the project retention basin. Standing water within the retention basin shall be removed, pumped, raked, or covered. Alternative methods or the time water is allowed to pool may be approved with the approval of the CPM.

15. Minimize Spills of Hazardous Materials. All vehicles and equipment shall be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Designated Biologist shall be informed of any hazardous spills immediately as directed in the project Hazardous Materials Plan. Hazardous spills shall be immediately cleaned up and the contaminated soil properly disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated area. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.

16. Dispose of Road-killed Animals. Road-killed animals or other carcasses detected on ~~Tecopa Road and other~~ project roads in the vicinity ~~within one mile~~ of the project site shall be reported ~~picked up~~

~~immediately and delivered~~ to the Biological Monitor for pick up. For special-status species road kill, the Biological Monitor shall contact USFWS and CDFG within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass. The Biological Monitor shall report the special-status species record as described in Condition of Certification **BIO-2**.

17. Worker Guidelines. During construction all trash and food-related waste shall be placed in self-closing containers and removed ~~daily~~ from the site. Workers shall not feed wildlife or bring pets to the project site. Except for law enforcement or security personnel, no workers or visitors to the site shall bring firearms or weapons.

18. Avoid Spread of Noxious Weeds. The project owner shall implement ~~the following~~ Best Management Practices during construction and operation, and all other measures as required in the final approved Weed Management Plan (**BIO-18**) to prevent the spread and propagation of noxious weeds and other invasive plants.~~:~~

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

    ~~b. Prevent spread of non-native plants via vehicular sources by implementing Trackclean™ or other methods of vehicle cleaning for vehicles coming and going from construction sites. Earth-moving equipment shall be cleaned prior to transport to the construction site; and~~

    ~~c. Use only weed-free straw, hay bales, and seed for erosion control and sediment barrier installations.~~

19. Implement Erosion Control Measures. Standard erosion control measures shall be implemented for all phases of construction and operation where sediment run-off from exposed slopes threatens to enter “Waters of the State”. Sediment and other flow-restricting materials shall be moved to a location where they shall not be washed back into the stream. All disturbed soils and roads within the project site shall be stabilized to reduce erosion potential, both during and following construction. Areas of disturbed soils (access and staging areas) with slopes toward a drainage shall be stabilized to reduce erosion potential.

20. Monitor Ground-Disturbing Activities Prior to Site Mobilization. If ground-disturbing activities are required prior to site mobilization, such as for geotechnical borings or hazardous waste evaluations, a Designated Biologist or Biological Monitor shall be present to monitor any actions that could disturb soil, vegetation, or wildlife.

21. Control and Regulate Fugitive Dust. To reduce the potential for the transmission of fugitive dust the owner shall implement dust control measures as set forth in Condition AQ-SC3. ~~These shall include:~~

a. ~~The owner shall apply non-toxic soil binders, equivalent or better in efficiencies than the CARB- approved soil binders, to active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction to reduce fugitive dust emissions.~~

b. ~~Water the disturbed areas of the active construction sites as necessary to control dust at least three times per day and more often if uncontrolled fugitive dust is noted.~~

c. ~~Enclose, cover, water twice daily, and/or apply non-toxic soil binders according to manufacturer's specifications to exposed piles that may create fugitive dust with a 5% or greater silt content. Agents with known toxicity to wildlife shall not be used unless approved by the CPM.~~

d. ~~Establish a vegetative ground cover (in compliance with biological resources impact mitigation measures above) or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.~~

e. ~~Increase the frequency of watering, if water is used as a soil binder for disturbed surfaces, or implement other additional fugitive dust mitigation measures, to all active disturbed fugitive dust emission sources when wind speeds (as instantaneous wind gusts) exceed 25 mph.~~

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

DESERT TORTOISE CLEARANCE SURVEYS AND EXCLUSION FENCING

BIO-9 The project owner shall undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to desert tortoise. Methods for clearance surveys, fence specification and installation, tortoise handling, artificial burrow construction, egg handling and other procedures shall be consistent with those described in the USFWS' 2009 *Desert Tortoise Field Manual*<http://www.fws.gov/ventura/speciesinfo/protocols_guidelines> or more current guidance provided by CDFG and USFWS. The project owner shall also implement all terms and conditions described in the Biological Opinion for the project prepared by USFWS. These measures include, but are not limited to, the following:

1. Desert Tortoise Exclusion Fence Installation. To avoid impacts to desert tortoises, permanent desert tortoise exclusion fencing shall be installed along the permanent, which may or may not be combined with the perimeter security fence. Temporary fencing along the underground utility corridors in California may be required for activities that require trenching and will be implemented at the approval of the CPM. The proposed alignments for the permanent perimeter fence and utility rights-of-way fencing shall be flagged and surveyed within 24 hours prior to the initiation of fence construction. Clearance surveys of the perimeter fence and utility rights-of-way alignments shall be conducted by the Designated Biologist(s) using techniques approved by the USFWS and CDFG and may be conducted in any season with USFWS and CDFG approval. Biological Monitors may assist the Designated Biologist under his or her supervision with the approval of the CPM and USFWS. These fence clearance surveys shall provide 100 percent coverage of all areas to be disturbed and an additional transect along both sides of the fence line. This fence line transect shall cover an area approximately 90 feet wide centered on the fence alignment. Transects shall be no greater than 15 feet apart. All desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined to assess occupancy of each burrow by desert tortoises and handled in accordance with the USFWS' 2009 *Desert Tortoise Field Manual,* or the most recent agency guidance with the approval of the CPM. Any desert tortoise located during fence clearance surveys shall be handled by the Designated Biologist(s) in accordance with the USFWS' 2009 *Desert Tortoise Field Manual* or the most recent agency guidance with the approval of the CPM.

    a. Timing, Supervision of Fence Installation. The exclusion fencing shall be installed prior to the onset of site clearing and grubbing. Fencing shall also be placed on the proposed access roads in tortoise habitat unless otherwise approved by the CPM. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present. The CPM shall be notified within 48 hours of fence completion. If the project is constructed in phases, prior to the initiation of clearing or grubbing for each solar plant, the project owner shall enclose the boundary of the affected solar plant with chain link fencing for security purposes and permanent desert tortoise exclusion fencing.

    b. Fence Material and Installation. The permanent tortoise exclusionary fencing shall be constructed in accordance with the USFWS' 2009 *Desert Tortoise Field Manual* (Chapter 8 – Desert Tortoise Exclusion Fence) or the most recent agency guidance with the approval of the CPM.

c. Temporary Construction Activities: Temporary construction activities including staging or parking outside of the permanent fencing shall be temporarily fenced with desert tortoise fencing to fully encompass the area prior to grounds disturbing activities to prevent desert tortoise from entering the area. The ~~fencing~~ use of ~~the~~ fencing in specific areas may be adjusted in consultation with the CPM. All fencing but be installed compliant with the timing and survey requirements identified in paragraph a, above.

d. Security Gates. Security gates shall be designed with minimal ground clearance to deter ingress by tortoises. The gates may be electronically activated to open and close immediately after the vehicle(s) have entered or exited to prevent the gates from being kept open for long periods of time. Cattle grating designed to safely exclude desert tortoise shall be installed at the gated entries to discourage tortoises from gaining entry.

e. Fence Inspections. Following installation of the desert tortoise exclusion fencing for both the permanent site fencing and temporary fencing in the utility corridors, the fencing shall be regularly inspected. Any fencing, whether temporary or permanent that is installed when tortoise are active shall be inspected two to three times daily for two weeks to ensure that desert tortoise are not fence walking to the point of exhaustion or overexposure. The same process shall occur for the first two weeks of the activity period if the fence is installed during the winter. Thereafter, permanent fencing shall be inspected monthly and during and within 24 hours following all major rainfall events. A major rainfall event is defined as one for which flow is detectable within the fenced drainage. Any damage to the fencing shall be temporarily repaired immediately to keep tortoises out of the site, and permanently repaired within 48 hours of observing damage. Inspections of permanent site fencing shall occur for the life of the project. Temporary fencing shall be inspected weekly and more often, as needed where activities are occurring in the vicinity that could damage the fence. Where drainages intersect the fencing, fencing shall be during and within 24 hours following major rainfall events. All temporary fencing shall be repaired immediately upon discovery and, if the fence may have permitted tortoise entry while damaged, the Designated Biologist shall inspect the area for tortoise.

2. Desert Tortoise Clearance Surveys within the Plant Site. Following construction of the permanent perimeter security fence and the attached tortoise exclusion fence, the permanently fenced power plant site shall be cleared of tortoises by the Designated Biologist, who may be assisted by the Biological Monitors. Clearance surveys shall be conducted in accordance with the USFWS' 2009 *Desert Tortoise Field*

Manual (Chapter 6 – Clearance Survey Protocol for the Desert Tortoise – Mojave Population) or the most recent agency guidance with the approval of the CPM and shall consist of two surveys covering 100% the project area by walking transects no more than 15-feet apart. If a desert tortoise is located on the second survey, a third survey shall be conducted. Each separate survey shall be walked in a different direction to allow opposing angles of observation. Clearance surveys of the power plant site may only be conducted when tortoises are most active (April through May or September through October). Surveys outside of these time periods require approval by USFWS and CDFG. Any tortoise located during clearance surveys of the power plant site shall be relocated and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan (Condition of Certification **BIO-10**).

3. Burrow Searches. During clearance surveys all desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined by the Designated Biologist, who may be assisted by the Biological Monitors, to assess occupancy of each burrow by desert tortoises and handled in accordance with the USFWS' 2009 *Desert Tortoise Field Manual*. To prevent reentry by a tortoise or other wildlife, all burrows shall be collapsed once absence has been determined. Tortoises taken from burrows and from elsewhere on the power plant site shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan.

4. Burrow Excavation/Handling. All potential desert tortoise burrows located during clearance surveys shall be excavated by hand (unless authorized by the CPM and USFWS), tortoises removed, and the burrows collapsed or blocked to prevent occupation by desert tortoises. All desert tortoise handling and removal, and burrow excavations, including nests, would be conducted by the Designated Biologist, who may be assisted by a Biological Monitor in accordance with the USFWS' 2009 *Desert Tortoise Field Manual.*

5. Monitoring Following Clearing. Following the desert tortoise clearance and removal from the power plant site and utility corridors, workers and heavy equipment shall be allowed to enter the project site to perform clearing, grubbing, leveling, and trenching. A Designated Biologist shall monitor clearing and grading activities to find and move tortoises missed during the initial tortoise clearance survey. Should a tortoise be discovered, it shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan to an area approved by the Designated Biologist.

6. Reporting. The Designated Biologist shall record the following information for any desert tortoises handled: a) the locations (narrative and maps) and dates of observation; b) general condition and health, including injuries, state of healing and whether desert tortoise voided

their bladders; c) location moved from and location moved to (using GPS technology); d) gender, carapace length, and diagnostic markings (i.e., identification numbers or marked lateral scutes); e) ambient temperature when handled and released; and f) digital photograph of each handled desert tortoise as described in the paragraph below. Desert tortoise moved from within project areas shall be marked and monitored in accordance with the Desert Tortoise Relocation/ Translocation Plan.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented during project construction and operation. Implementation of the measures shall be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of desert tortoise clearance surveys the Designated Biologist shall submit a report to the CPM, USFWS, and CDFG describing implementation of each of the mitigation measures listed above. The report shall include the desert tortoise survey results, capture, and release locations of any relocated desert tortoises, and any other information needed to demonstrate compliance with the measures described above. All of these measures will be done in accordance with the approved Desert Tortoise Relocation Plan (see Condition of Certification **BIO-10**, below).

DESERT TORTOISE RELOCATION/TRANSLOCATION PLAN

BIO-10 The project owner shall develop and implement a Desert Tortoise Relocation/Translocation Plan (Plan) that is consistent with current USFWS approved guidelines (November 2011) or newer guidance, should the latter become available. The goal of the plan shall be to safely exclude desert tortoises from within the fenced project area and relocate/translocate them to suitable habitat capable of supporting them, while minimizing stress and potential for disease transmission. The plan shall be developed in consultation with the USFWS to ensure the document does not conflict with conditions issued under an Incidental Take Statement. The plan shall include but not be limited to:

1. Translocation and Control Locations. The plan shall identify the proposed translocation recipient sites and control area. Sites shall be ranked based on the distance from the project site; distance from known hazards such as off highway vehicle locations, busy roads, or other known treats; proximity to existing populations; known linkage areas, and similarity of these variables to the area from which the tortoises were translocated. Translocation sites shall consider the value for recovery of local populations. The plan shall utilize the most recent USFWS guidance on translocation that includes required siting criteria. If moved outside their home range the following translocation criteria ~~include should~~ would be considered:

    a. The translocation site supports desert tortoise habitat suitable for all life stages.

b. Disease prevalence within the resident desert tortoise population is less than 20 percent.

c. The site is at least 10 km from major unfenced roads or highways. Distance from roads may be reduced if the proposed action includes provisions to install and maintain desert tortoise exclusion fencing as a minimization measure or if there are topographical or other barriers between the road and the recipient site.

d. The site is within 40 km of the project site, with no natural barriers to movement between them, to ensure that the desert tortoises at the two sites were likely part of a larger mixing population and similar genetically.

e. The site may occur ~~occurs~~ on lands where desert tortoise populations have been depleted or extirpated yet still support suitable habitat. Depleted areas may include lands adjacent to highways.

f. The site has no detrimental rights-of-way (ROWs) or other encumbrances.

g. The site will be managed for conservation so that potential threats from future impacts are precluded. In the project region, DWMAs, designated critical habitat units (CHUs), areas of critical environmental concern (ACECs), National Park Service lands, and BLM Wilderness Areas are managed for conservation.

2. Control Site. The plan shall consider the following USFWS guidelines for the control site.

   a. be similar in habitat type/quality, desert tortoise population size/structure, and disease status to the recipient sites;

   b. not have been previously used as a recipient site for other projects; and

   c. be a minimum distance of 10 km (6 miles) from an unfenced recipient site that has no substantial anthropogenic or natural barriers to prevent the interaction of control, resident, and translocated desert tortoises.

3. Host Population. The plan shall provide an evaluation of the habitat quality on the translocation and control sites; provide a determination of existing tortoise density, and an assessment of the sites' ability to accommodate additional tortoises above baseline conditions.

4. Holding Pens. The plan shall provide information on the type holding pens for quarantined translocated tortoises prior to their release into host populations. Pens shall be located on the project site in an area capable of ensuring the protection of the tortoises. The size of the pen shall be designed based on the expected number of desert tortoise that occur on the project site or in an area approved by the CPM. The

pen shall contain adequate cover and be in an area supporting suitable soils for burrowing.

5. Tracking, Monitoring, Disease Testing, and Reporting. The plan shall provide information on the use of tracking units (GPS VHS transmitters) on tortoises from the project site, translocation site, and control site; provide information on the short and long term monitoring and reporting of control, translocated and host populations; provide information on disease testing for long distance translocated tortoises, host, and control sites; and, identify remedial actions should excessive predation or mortality be observed. The plan shall also include provisions for removing diseased tortoises; the development of quarantine pens; accommodating eggs hatchlings or juvenile tortoise.

Verification: At least 90 days prior to the start of any project-ground disturbing activity, the project owner shall submit the draft Desert Tortoise Relocation/Translocation Plan to the CPM for review and approval and to USFWS and CDFG for review and comment. No less than 30 days prior to the start of any project-ground disturbing activity, the project owner shall provide the CPM with the final version of a Desert Tortoise Relocation/Translocation Plan. No relocation/translocation activities may occur prior to approval of the final plan by the CPM. Any modifications to the approved plan shall be made only after approval by the CPM and in consultation with USFWS and CDFG.

Within 30 days after initiation of relocation and/or translocation activities, the Designated Biologist shall provide to the CPM for review and approval, a written report identifying which items of the plan have been completed, and a summary of all modifications to measures made during implementation of the plan. Written monthly progress reports shall be provided to the CPM for the duration of the plan implementation; monthly progress reports may be replaced by quarterly reports after the first year of relocation/translocation, if approved by the CPM.

COMPLIANCE VERIFICATION

BIO-11 This condition of certification was deleted by staff in the FSA.

DESERT TORTOISE COMPENSATORY MITIGATION

BIO-12 Condition language not agreed upon by staff and applicant.

RAVEN MONITORING, MANAGEMENT, CONTROL PLAN and FEE

BIO-13 The project owner shall design and implement a Raven Monitoring, Management, and Control Plan (Raven Plan) that is consistent with the most current USFWS-approved raven management guidelines. The goal of the Raven Plan shall be to minimize predation on desert tortoises by minimizing project-related increases in raven abundance. The Raven Plan shall include but not be limited to:

1. Prepare and Implement a Raven Management Plan that includes the following:
    a. Identify conditions associated with the project that might provide raven subsidies or attractants;
    b. Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities;
    c. Describe control practices for ravens;
    d. Address monitoring and nest removal during construction and for the life of the project, and;
    e. Discuss reporting requirements.
2. Contribute to the REAT Regional Raven Management Program. The project owner shall submit payment to the project sub-account of the REAT Account held by the National Fish and Wildlife Foundation (NFWF) to support the REAT Regional Raven Management Program. The amount shall be a one-time payment of $105 per acre (3,258 acres) of permanent disturbance plus a two percent fund management fee of $348,932.00.

    For the first year of reporting the project owner shall provide quarterly reports describing implementation of the Raven Plan. Thereafter the reports shall be submitted annually for the life of the project.

Verification: At least 60 days prior to any project-related ground disturbance activities, the project owner shall submit the draft Raven Plan to the CPM for review and approval and CDFG and USFWS for review and comment. At least 30 days prior to start of any project-related ground disturbance activities, the project owner shall provide the CPM the final version of the Raven Plan. No ground disturbing activities may occur until the final plan is approved by the CPM. Any modifications to the approved Raven Plan must be approved by the CPM in consultation with USFWS and CDFG. The project owner shall notify the CPM no less than five working days before implementing any CPM approved modifications to the Raven Plan.

No fewer than 30 days prior to the start of any project-related ground disturbing activity, the project owner shall provide written verification to the CPM that the Raven Management Fee has been paid to NFWF.

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

AMERICAN BADGER AND DESERT KIT FOX MANAGEMENT PLAN

BIO-14 The owner shall prepare and implement an American Badger and Desert Kit Fox Management Plan. ~~The plan shall be prepared in accordance with the most current CDFG guidelines for these species~~. The Management

Plan must be approved by the CPM prior to implementation, and shall contain the following provisions:

Preconstruction surveys and mapping efforts: biological monitors shall perform pre-construction surveys for badger and kit fox dens in the project area, including areas within 250 feet of all project facilities, utility corridors, and access roads. Preconstruction surveys may be completed concurrent with the preconstruction nesting bird surveys, burrowing owl surveys, or desert tortoise clearance surveys. If dens are detected, each den shall be classified as inactive, potentially active, or known active, including characterization of den type for kit fox (natal, pupping, likely satellite, atypical) per CDFG and/or CPM guidance, and mapped along with major project design elements.

Directions for collapse of inactive dens. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox. Potentially and known active dens shall not be disturbed during the whelping/pupping season (approximately February 1 – September 30). A den may only be declared "inactive" after three days of monitoring via camera(s) or ~~and~~ tracking medium that have shown no kit fox or American badger activity.

Monitoring requirements: potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights (during weather conditions favorable for detection) using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. Backfilling dens ensures no badgers or kit fox are trapped in the den.

Passive relocation strategies: the management plan shall contain~~, at a minimum, several~~ strategies to passively relocate animals from the site. These methods may entail strategic mowing, fencing, or other feasible ~~construction~~ methods to assist in moving animals offsite toward desirable land. The plan shall also ~~detail methods used to discourage occupation of dens within the project site, such as use of noisemakers, citronella-based chemical deterrents, strobe lighting, ect., and shall~~ incorporate temperature constraints if requested by the CPM or CDFG. The Plan shall address location of preferred offsite movement of animals, based on CDFG data and land ownership. Private land is to be avoided to the maximum extent practicable. The Plan shall also indicate that passive hazing is not to be used at natal dens, and shall include guidelines specific to determining when kit fox pups are functioning independently, and when passive relocation strategies may be safely implemented. The Plan shall also prescribe use of buffer zones around dens to protect against accidental collapse or crushing by people or equipment.

Kit fox disease prevention measures. The Designated Biologist shall notify the CDFG and CPM within 24 hours if a dead kit fox is found or appears sick. The plan must also detail a response to a kit fox injury, including a necropsy plan, reporting methods, and scope of adaptive methods in the event of a known or suspected outbreak. The project owner will pay for any necropsy work for dead kit fox found on the project site.

Verification: At least 45 ~~60~~ days prior to any project-related ground disturbing activity, the project owner shall submit an American badger and desert kit fox management plan to the CPM for review and approval and to CDFG for review and comment. No less than ~~3~~10 days prior to any ground disturbing activity, the project owner shall provide one copy of the final approved plan to the CPM and implement the plan.

The project owner shall submit a report to the CPM and CDFG within 30 days of completion of badger and kit fox surveys. The report shall describe survey methods, findings, provide preliminary classification of dens and rationale, and map dens along with project features. Results of ongoing monitoring and relocation efforts shall be reported in the Monthly Compliance Reports. The project owner shall provide the CPM 24 hour notice before excavating a den classified as natal.

AVIAN, BAT, AND GOLDEN EAGLE PROTECTION PLANS

BIO-15 Condition language not agreed upon by staff and applicant.

PRE-CONSTRUCTION NESTING BIRD SURVEYS

BIO-16 Pre-construction nest surveys shall be conducted if construction activities will occur from February 1 through August 1~~5~~. The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors and familiar with standard nest-locating techniques. Surveys shall be conducted in accordance with the following guidelines:

1. Surveys shall cover all potential nesting habitat in the project site and within 500 feet of the boundaries of the plant site and linear facilities where access is legally available;
2. At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. One of the surveys shall to be conducted within the 10 days preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed one week in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation;
3. If active nests are detected during the survey, a no-disturbance buffer zone (protected area surrounding ~~the~~ a nest), shall be established, the size of which is to be determined by the Designated Biologist as specified in the nesting bird plan. ~~in consultation with CDFG, USFWS, and CPM) and a monitoring plan for identified nests shall be~~

~~developed. The nesting bird plan shall identify the types of birds that may nest in the project area, the proposed buffers, monitoring requirements, and reporting standards that will be implemented to ensure compliance with the Migratory Bird Treaty Act and Fish and Game Codes 3505 and 3505.3~~. Nest locations shall be mapped using GPS technology and submitted, along with a weekly report stating the survey results, to the CPM; and a nesting bird plan identifying the proposed buffers, monitoring requirements, and reporting standards that will be implemented to ensure compliance with the Migratory Bird Treaty Act and Fish and Game ~~Codes~~ Code Sections 3505 and 3505.3 will be submitted to the CPM.

4. The Designated Biologist shall monitor the nest until he or she determines that nestlings have fledged and dispersed. Activities that might, in the opinion of the Designated Biologist and in consultation with the CPM, disturb nesting activities shall be prohibited within the buffer zone until such a determination is made.

Verification: At least 10 days prior to the start of any project-related ground disturbance activities, the project owner shall provide the CPM a letter-report describing the findings of the pre-construction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the no-disturbance buffer zone around the nest and the nesting bird plan described in BIO-16 Section 3. All nest avoidance measures will be implemented and reported in the Monthly Compliance Report.

BIO-17: Condition language not agreed upon by staff and applicant.

(*Note: Conditions BIO-18 through 23 are based upon staff's condition language docketed on February 25, 2013 and discussed during workshops on March 5 and 6, 2013*)

BIO-18: To minimize the potential indirect effects of weeds on biological resources adjacent to the project, the project owner shall submit a draft Weed Management Plan subject to review and approval by the Compliance Manager (CPM). The general objective of the Weed Management Plan shall be to: 1) manage or contain weed species of greatest environmental concern for the life of the project to prevent their spread into adjacent offsite habitat, and 2) prevent the accidental introduction of new weed species from contaminated vehicles and equipment during construction or soil disturbing activities.

"Target" weed species or weed populations for long-term management, and those considered infeasible to control or a low priority shall be determined through an ecological risk assessment such as *Criteria for*

Categorizing Invasive Non-Native Plants that Threaten Wildlands (2003)[2], California Exotic Pest Plant Council *An Invasive Species Assessment Protocol: Evaluating Non-Native Plants for Their Impact on Biodiversity* (The Nature Conservancy 2004)[3], or weed risk assessment criteria developed by the Bureau of Land Management (BLM) or U.S. Forest Service. The term "weeds" as used in this condition includes weed species identified by: California Invasive Plant Council (Cal-IPC); California Department of Food and Agriculture; and BLM California. Only the species of greatest environmental concern and/or limited distribution onsite shall be mandated for control and/or eradication. Weed management is not required for common and widespread weed species.

The draft weed management plan shall include the following:

1. Weed Plan Requirements. The draft plan shall include the following information: a) specific weed management objectives and measures for each target non-native weed species; b) description of the baseline conditions; c) maps showing locations of existing populations of target weeds or weed populations; d) weed risk assessment based on Cal-IPC[4],Nature Conservancy[5]; BLM, or USFS criteria, e) measures that would be used to contain, manage, or monitor identified priority weed species; f) measures that would be used to prevent the introduction and spread of weeds on vehicles, equipment, and materials (e.g., infested seed, straw, gravel, etc.); g) measures to minimize the risk of unintended harm to wildlife and other plants from weed control activities; h) monitoring and surveying methods; and i) reporting requirements. Maps of all weeds found onsite contained in the botanical surveys[6] shall be attached as an appendix to the Weed Plan.

---

[2] Warner, Peter J., Carla C. Bossard, Matthew L. Brooks, Joseph M. DiTomaso, John A. Hall, Ann M. Howald, Douglas W. Johnson, John M. Randall, Cynthia L. Roye, Maria M. Ryan, and Alison E. Stanton. 2003. *Criteria for Categorizing Invasive Non-Native Plants that Threaten Wildlands.*California Exotic Pest Plant Council and Southwest Vegetation Management Association. 24 pp. Online: http://www.cal-ipc.org/ip/inventory/pdf/Criteria.pdf

[3] Morse, L.E., J.M. Randall, N. Benton, R. Hiebert, and S. Lu. 2004. *An Invasive Species Assessment Protocol: Evaluating Non-Native Plants for Their Impact on Biodiversity.*[v1]. The Nature Conservancy. Arlington, Va. Online: http://www.natureserve.org/library/invasiveSpeciesAssessmentProtocol.pdf

[4] Warner, Peter J., Carla C. Bossard, Matthew L. Brooks, Joseph M. DiTomaso, John A. Hall, Ann M. Howald, Douglas W. Johnson, John M. Randall, Cynthia L. Roye, Maria M. Ryan, and Alison E. Stanton. 2003. *Criteria for Categorizing Invasive Non-Native Plants that Threaten Wildlands.*California Exotic Pest Plant Council and Southwest Vegetation Management Association. 24 pp. Online: http://www.cal-ipc.org/ip/inventory/pdf/Criteria.pdf

[5]Morse, L.E., J.M. Randall, N. Benton, R. Hiebert, and S. Lu. 2004. *An Invasive Species Assessment Protocol: Evaluating Non-Native Plants for Their Impact on Biodiversity.*[v1]. The Nature Conservancy. Arlington, Va. Online: http://www.natureserve.org/library/invasiveSpeciesAssessmentProtocol.pdf

[6] CH2M Hill 2011. *Spring 2011 Botanical Resource Survey of the Hidden Hills Solar Electric Generating System Site*, Appendix A. Applicants Data Response Set 1B-2 (tn: 63262).

2. Avoidance and Treatment of Dense Weed Populations. The draft plan shall include guidelines for avoiding or treating dense populations of the weed species identified as priorities for containment. If grading and construction cannot avoid the highest priority target weed species, they shall be contained by one of the following methods: a) requiring tires of vehicles and equipment operating in infested areas to be cleaned before leaving the infested area; or b) treating the infested areas in the season prior to construction and spraying the new crop of plants that emerge in early spring.

3. Cleaning Vehicles and Equipment. The draft plan shall include specifications and requirements for establishing a cleaning station for removal of weed seed and weed plant parts from vehicles and equipment entering and leaving the site during construction. Vehicles and equipment working in weed-infested areas (including previous job sites) shall be required to clean the equipment tires, tracks, and undercarriage before entering the project area. The washing station shall be sized to accommodate large vehicles and construction equipment. Security or cleaning station staff will actively monitor vehicles and provide records in the monthly logs. Cleaning shall adequately remove all visible dirt and plant debris. If water must be used to clean vehicles, the water/slurry shall be contained to prevent seeds and plant parts from washing offisite.

4. Treatment of Weed Populations near Special-status Plants. The draft plan shall include a requirement to prioritize the containment of target non-native weeds onsite that occur onsite and within 100 feet of any of the nine offsite special-status plant occurrences immediately adjacent to the project boundary. Weeds that are located offsite will not be controlled. The draft plan shall also include measures for preventing accidental harm to the adjacent offsite occurrences during spraying or other weed management activities according to the guidelines in #6, below. The plan shall not include spraying or mechanical treatments of common and widespread weeds around the perimeter to avoid harming wildlife; the focus shall instead be on spot treatment of new outbreaks and small populations of the most invasive species, and according to the guidelines for wildlife-safe herbicide use described under #7 and #8, below.

5. Employee Weed Awareness Training. A program shall be developed and incorporated into the WEAP and BRMIMP to train construction and operation employees to recognize the most common and most invasive species in the area, how to avoid contaminating vehicles and equipment, how to avoid spreading weeds offsite or introducing new weed species onsite, and how to protect wildlife and adjacent offsite special-status plant occurrences from accidental harm during weed management activities. Employees shall be trained to understand the

common vectors and conduits for spread, the economic and ecological impacts of weeds, and trained on procedures for reporting infestations.

6. Compensate Local Agencies for Increased Weed Monitoring and Abatement. The project owner and the Inyo/Mono Agricultural Commissioner shall establish an amount for a fee to be paid annually by the project owner to the local agency for increased offsite monitoring and abatement costs resulting from the construction and operation of the project.[7]

7. Safe Use of Herbicides. The draft plan shall include a list of herbicides and soil stabilizers that will be used on the project with manufacturer's guidance on appropriate use. The draft plan shall indicate under what circumstances herbicides will be used, and what techniques will be used to avoid chemical drift. Guidance for safe herbicide use is available in *Safe Herbicide Handling in Natural Areas* (Hillmer et al. 2003). Only weed control measures for target weeds with a demonstrated record of success shall be used, based on the best available information from sources such as The Global Invasive Species Team "Invasipedia"[8], Cal-IPC Invasive Plant Profiles[9], and the California Department of Food & Agriculture Encycloweedia[10].

8. Weed Control Methods. The methods for weed control described in the draft plan shall meet the following criteria:

   a. Manual: Seed heads and plants removed manually must be disposed of in accordance with guidelines from the Inyo County Agricultural Commissioner (or Clark or Nye County commissioners if disposed in Nevada).

   b. Chemical: Herbicides known to have residual toxicity, such as soil fumigants and certain pre-emergent herbicides and pellets shall not be used. Only post- and pre-emergent herbicides known to have minimal toxicity to birds and other wildlife shall be used in weed control. This includes selective or non-selective types depending on target weed species. In sensitive areas immediately adjacent to offsite special-status plant occurrences, sprayers shall be operated at low pressure or with a shield attachment to control drift, and spraying conducted on windless days;

[7] It is applicant's belief that the language regarding payment to the Agricultural Commission in Condition BIO-18 is not required due to the agreement between the applicant and Inyo County.

[8] http://wiki.bugwood.org/Invasipedia

[9] http://www.cal-ipc.org/ip/management/plant_profiles/index.php

[10] http://www.cdfa.ca.gov/plant/ipc/encycloweedia/encycloweedia_hp.htm

c. Biological: Biological methods, if used, shall be subject to agency review to avoid inadvertent naturalizing, hybridizing with native species;

d. Mechanical: Mechanical trimmers shall not be used during periods of high fire risk or shall only be implemented during early morning hours when the fire risk is lowest. Contact information for the local fire department and Cal-Fire shall be clearly posted at all times. A live water supply, shovels, and fire extinguishers shall be available at all times during mowing and other mechanical weed controls.

Verification: At least 90 days prior to the start of any project-ground disturbing activity, the project owner shall submit the draft Weed Management Plan to the CPM for review and approval. No less than 30 days prior to the start of any project-ground disturbing activity, the project owner shall provide the CPM with the final version of the Weed Management Plan. Any modifications to the approved plan shall be made only after approval by the CPM.

No less than 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide the CPM with a copy of an agreement between the project owner and local agricultural commissioner(s) regarding compensation for increased weed monitoring and abatement costs, and provide written evidence that the first annual fee has been paid.[11]

Within 60 days after completion of project construction, the project owner shall provide to the CPM for review and approval a written report identifying which items of the Weed Management Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.

As part of the Annual Compliance Report, each year following construction the Designated Biologist shall provide a report to the CPM that includes: a) a summary of the results of noxious weed surveys and management activities for the year; b) discussion and documentation of progress in meeting management goals for target weed species; c) documentation that methods were employed to prevent accidental harm to adjacent sensitive resources, and d) recommendations for weed management activities for the upcoming year.

SPECIAL-STATUS PLANT IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-19 The project owner shall prevent accidental impacts to known special-status plant occurrences offsite that are in close proximity (within 100 feet) to project activities through the measures described below. The project

[11] It is applicant's belief that the language regarding payment to the Agricultural Commission in Condition BIO-18 is not required due to the agreement between the applicant and Inyo County.

owner is not responsible for managing or monitoring special-status plant occurrences offsite. The project owner shall incorporate all measures for protecting offsite special-status plants in close proximity (within 100 feet) to the site into the BRMIMP (BIO-7). These measures shall include the following elements:

a. Establish Environmentally Sensitive Areas (ESAs). Prior to the start of any ground- or vegetation-disturbing activities, the Biological Monitor shall designate temporary Environmentally Sensitive Areas (ESAs) to protect offsite special-status plant occurrences within 100 feet of the project boundary from accidental impacts during construction and operation. The location of the adjacent offsite occurrences shall be marked at the project boundary with temporary signage during construction. The adjacent offsite occurrences shall also be clearly depicted on construction drawings as ESAs. As part of regular monitoring activities, the Biological Monitor will verify that ESA signage is in good repair and, by doing so, will verify that avoidance of offsite special-status plant occurrences is performed during construction.

b. Worker Environmental Awareness Program (WEAP). The WEAP **(BIO-6)** shall include a requirement for informing employees and contractors about the presence of the special-status plant ESAs and components specific to avoidance of ESAs.

c. Herbicide and Soil Stabilizer Drift Control Measures. Special-status plant occurrences offsite shall be protected from potential herbicide drift as described in the Weed Management Plan (BIO-18), and through implementation of standard air quality and dust control measures, they shall also be protected from fugitive dust and soil stabilizer drift.

d. Avoid Weed Contaminated Erosion and Sediment Control Materials. Any seed mixes used for erosion control shall not include invasive plants. Erosion-control seed mixes, straw, and other mulches, if used, shall be certified weed-free. These specifications shall be incorporated in the Drainage, Erosion, and Sedimentation Control Plan required under **SOIL-1**.

e. Locate Spoil Piles and Equipment Re-Fueling and Maintenance Areas Away from Special-Status Plant Occurrences. Spoil piles and equipment re-fueling and maintenance areas and wash areas shall be placed at least 100 feet from any offsite special-status plant occurrences.

f. Monitoring and Reporting Requirements. During construction, the Designated Biologist shall conduct regularly scheduled monitoring of the ESAs designed to avoid inadvertent trespass offsite where adjacent offsite special-status plant occurrences are located. The monitoring report shall include: a) dates of worker awareness training sessions and attendees; b) map showing the location of all special-

status plant occurrences within 100 feet of the project boundary (including linears and access roads); c) location and description of the ESA signs, other avoidance measures implemented (e.g., dust control or relocation of spoils and refueling areas); d) location description of any unpermitted trespass into ESAs and any corrective action taken; and e) outstanding follow-up items and recommendations for action in the next year.

Verification: The Monthly Compliance Reports prepared by the Designated Biologist during construction shall include documentation that the special-status plant ESAs were designated on construction drawings and temporary ESA signage was installed and is in operational condition as described in this condition.

The project owner shall submit a monitoring report every year during construction according to the specifications listed above to monitor effectiveness of temporary during-construction avoidance measures for the special-status plant ESAs to the CPM.

SPECIAL-STATUS PLANT COMPENSATORY MITIGATION PLAN

BIO-20 To mitigate for significant impacts to special-status plants that occur on the project site, the project owner shall implement mitigation to offset the impact as described below. Because the condition allows for future offsite surveys to identify new occurrences, and the adjustment of mitigation ratios if new offsite occurrences are found, a range of options is provided with detailed performance standards for each option. Due to the resulting length of the condition, it has been subdivided into the following subsections:

A. Mitigation through Acquisition and Preservation

B. Mitigation through Restoration and Enhancement

C. Mitigation through Avoidance

D. Other Provisions

"Other Provisions" includes performance standards for future surveys and adjusting mitigation ratios, and seed collection. An in-lieu option for fulfilling mitigation through payments to an approved third-party land trust or public agency is also included.

Subsection A: Mitigation through Acquisition and Preservation

1. Selection Criteria and Mitigation Ratio for Compensation Lands. If the project owner elects to mitigate for significant impacts to Wheeler's skeletonweed, Torrey's joint-fir, and Preuss' milk-vetch by acquiring and preserving offsite occurrences under a permanent conservation easement, three offsite occurrences shall be protected for every S1 ("critically imperiled") species affected and two offsite occurrences protected for every S2 ("imperiled") species affected. Range ranks (e.g., an S1S2 rank) shall defer to the more imperiled rank. For gravel

milk-vetch a total of four offsite occurrences shall be protected through acquisition and preservation (see explanation in the Staff Rebuttal, page 14-15, tn-69495). The restoration option (subsection B) and the option for avoidance of perimeter occurrences (subsection C) may be used to fulfill this obligation if there are insufficient opportunities for acquisition. Acquisition lands containing more than one of the affected species shall be credited for both species. Integration of special-status plant mitigation land with other mitigation lands is described below.

The compensation lands selected for acquisition must meet the following selection criteria: a) the compensation lands selected for acquisition shall be occupied by the target plant species and shall be characterized by site integrity and habitat quality adequate to sustain the population, and b) shall be of equal or better habitat quality than that of the affected occurrence unless restoration/enhancement actions are proposed to the acquisition property. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing, or be made so, with implementation of restoration/enhancement actions.

2) Review and Approval of Compensation Lands Prior to Acquisition. A Draft Special-status Plant Mitigation Plan (Plan) shall be prepared subject to review and approval of the CPM prior to acquisition. The Draft Plan shall discuss the suitability of the proposed parcel(s) as compensation lands for special-status plants in relation to the criteria listed above. The project owner shall submit the final plan and formal acquisition proposal to the CPM describing the parcel(s) intended for purchase, and must be approved by the CPM.

3) Management Plan. The project owner, or approved third party as described below under “Title and Conveyance”, shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan shall be to maintain the long-term viability of the target special-status plant occurrences to be viable, stable, or increasing. The management plan shall also include long-term monitoring and reporting on the implementation, effectiveness and compliance with the conservation goals and objectives of the mitigation. The Management Plan shall be submitted for review and approval to the CPM.

4) Integrating Special-Status Plant Mitigation with Other Mitigation Lands. If all or any portion of the acquired Desert Tortoise, Waters of the State, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species’ or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation. Mitigation obligations for special-status plants shall not be fulfilled by nesting with other mitigation lands if the lands do not meet all the criteria and performance standards described in

this condition. Potential mitigation lands containing more than one of the significantly affected species would be credited for both species, i.e., one parcel could be used to fulfill the mitigation obligations for more than one special-status plant species providing the parcel met all the selection criteria. If mitigation lands contain more than one special-status plant occurrence or multiple special-status plant species then credit will be given for multiple occurrences.

5) Compensation Lands Acquisition Requirements. The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, has approved the proposed compensation lands:

   a. Preliminary Report. The project owner, or an approved third party, shall provide a recent preliminary title report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM.

   b. Title/Conveyance. The project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM. Any transfer of a conservation easement or fee title must be to a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to CDFG or other public agency approved by the CPM. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of the deed holder approved by the CPM. The CPM may require that another entity approved by the CPM be named a third party beneficiary of the conservation easement. The project owner shall obtain approval of the CPM of the terms of any transfer of fee title or conservation easement to the compensation lands.

   c. Initial Protection and Habitat Improvement. The project owner shall fund activities that the CPM requires for the initial protection and habitat improvement of the compensation lands, if habitat improvement is necessary. These activities will vary depending on the condition and location of the land acquired, but may include: initial enhancement (e.g., signs, fencing, protection from off-road vehicles); restoration actions needed to maintain the viability of the occurrences (e.g., removal of invasive species, barricading and decommissioning off-road vehicle trails, protection from herbivores, managing public access, enforcement); and monitoring and reporting on implementation, effectiveness and compliance with the conservation goals and objectives of the mitigation. For determining the amount of security, the cost of these activities may use the estimated cost per acre for Desert Tortoise mitigation as a proxy or

other estimates proposed by the project owner and approved by the CPM. The actual costs will vary depending on the measures that are required for the compensation lands and shall be determined by a Property Analysis Record (PAR) or similar analysis. A non-profit organization or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), and if it meets the approval of the CPM.

d. Property Analysis Record. Upon identification of the compensation lands, the project owner shall conduct a PAR or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM before it can be used to establish funding levels or management activities for the compensation lands.

e. Long-term Maintenance and Management Funding. The project owner shall deposit into an account managed by a land trust or other non-profit organization to fund a capital long-term maintenance and management fee (endowment) in the amount determined through the Property Analysis Record (PAR) or PAR-like analysis conducted for the compensation lands. The CPM may designate another non-profit organization to hold the long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity.

f. Interest, Principal, and Pooling of Funds. The project owner shall ensure that an agreement is in place with the long-term maintenance and management fund (endowment) holder/manager to ensure the following requirements are met:

    i. Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring and any other action that is approved by the CPM and is designed to protect or improve the habitat values of the compensation lands related to the special-status plants.

    ii. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the target species on the compensation lands.

    iii. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and

management funds for the project may pool those funds with similar funds that it holds from other projects for long-term maintenance and management of compensation lands for special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this project must be tracked and reported individually to the CPM.

g. Other Expenses. In addition to the costs listed above, the project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to an approved third party, escrow fees or costs, and environmental contaminants clearance.

h. Mitigation Security. The project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing project activities. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of financial security ("Security") approved by the CPM. The estimated acquisition costs and amount of the security may be calculated based on the estimated cost per acre for Desert Tortoise mitigation or other estimate as approved by the CPM as a best available proxy. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the CPM, the project owner shall obtain the CPM's approval of the form of the Security. The CPM may draw on the Security if the CPM determines the project owner has failed to comply with the requirements specified in this condition. The CPM may use money from the Security solely for implementation of the requirements of this condition. The CPM's use of the Security to implement measures in this condition may not fully satisfy the project owner's obligations under this condition, and the project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the project owner in whole or in part upon successful completion of the associated requirements in this condition.

i. Conservation Easements and Other Deed Restrictions. If acquisition and preservation is accomplished through conservation easements, or other deed restrictions that go with the land, as an alternative to fee title, the easement shall meet the following performance standards: 1) the easement shall be large enough to

maintain the viability of the occurrence and protect it from edge effects; 2) stewardship fees shall be adequate to manage and defend the easement; and 3) ongoing oversight and accountability shall be ensured through monitoring and reporting requirements of the easement holder. Conservation easements held by a third party land trust or public agency, and other deed restrictions shall be obligated to fulfill all performance standards described above. The approved third party shall submit an annual report to the CPM on the health and status of the protected occurrence as described below.

Other deed restrictions, such as restrictive covenants, are acceptable only if the project owner demonstrates that no third party land trust or public agency was available to accept the easement. Under these circumstances, the project owner shall be responsible for managing the occurrence under deed restrictions according to the performance standards described above for initial protection and enhancement and long-term management until transferred to an approved third party under a conservation easement. The project owner shall monitor the occurrence(s) and submit an annual report to the CPM that includes a qualitative and quantitative report on the occurrence health and status, actions taken to enhance and protect the occurrence, a description of remedial actions taken or proposed, and contact information for the responsible parties.

Subsection B: Mitigation through Restoration and Enhancement

1. Criteria for Mitigation through Enhancement/Restoration of At-Risk Occurrences. As an alternative or adjunct to acquisition of compensation lands, the project owner may undertake or fund habitat enhancement or restoration for at-risk occurrences of the target special-status plant species. Examples of suitable restoration projects include but are not limited to the following: a) control of unauthorized vehicle use into an occurrence; b) control of invasive non-native plants that pose an immediate threat to an occurrence; c) fencing to exclude grazing by wild burros or livestock from an occurrence; d) protection from other herbivores (e.g. lagomorphs) if damaging to the occurrence, or e) restore lost or degraded hydrologic or geomorphic functions critical to the species (e.g., restoring previously diverted stream flows, removing obstructions to the wind sand transport corridor above an occurrence, or increasing groundwater availability for dependent species). Ex-situ mitigation through transplanting or replacement planting is not an acceptable mitigation option due to the high rate of failure.
2. Performance Standards. If the project owner elects to undertake a habitat enhancement project for mitigation, the project must meet the following performance standards: The proposed enhancement

project shall achieve enhancement/restoration of an off-site occurrence that is currently in decline to a stable or increasing status. The NatureServe threat ranking system, or another equivalent system approved by the CPM, may be used to evaluate threats to the occurrence. Restoration would be considered successful if it achieves an improvement in the occurrence trend as measured using the NatureServe ranking system, or other approved threat-ranking system to a stable or increasing status, as defined by the approved threat-ranking system.

3. Mitigation Security. The project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement the restoration/enhancement project. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of financial security ("Security") approved by the CPM. The amount of the security shall be based on the estimated total cost for the restoration project, including implementation, monitoring, and contingency measures. The implementation and monitoring of the restoration may be undertaken by an appropriate third party, or the project owner may fund an agency to implement the restoration, subject to approval by the CPM. Any restoration undertaken on private lands must be protected in perpetuity under a conservation easement.

4. Prepare Enhancement/Restoration Plan. If the project owner elects to undertake an enhancement/restoration project for mitigation, they shall submit an Enhancement/Restoration Plan to the CPM for review and approval. The Enchancement/Restoration Plan shall include each of the following components:

   a. Goals, Objectives, and Performance Standards. Define the goals of the restoration or enhancement project and a measurable course of action developed to achieve those goals. The objective of the proposed habitat enhancement plan shall include enhancement/restoration of a target special-status plant occurrence that is currently threatened with a long-term decline. The proposed enhancement plan shall achieve an improvement in the occurrence threat trend compared to pre-enhancement/restoration conditions using NatureServe or other threat-ranking system.

   b. Baseline, Historical, and Desired Conditions. Provide a description of the pre-project baseline conditions (prior to the start of restoration), an estimate of the pre-impact historical conditions (before the site was degraded by weeds or grazing or ORV, etc.), and the desired conditions.

c. Site Characteristics. Describe other site characteristics relevant to the restoration or enhancement project (e.g., composition of native and pest plants, topography and drainage patterns, soil types, geomorphic and hydrologic processes important to the site or species).

d. Ecological Factors. Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc.

e. Methods. Describe the restoration methods that will be used (e.g., invasive exotics control, site protection, seedling protection, propagation techniques, etc.) and the long-term maintenance required. The implementation phase of the enhancement/restoration project must be completed within five years of the start of construction.

f. Budget. Provide a detailed budget and time-line, and develop clear, measurable, objective-driven annual success criteria.

g. Monitoring. Develop clear, measurable monitoring methods that can be used to evaluate the effectiveness of the enhancement/restoration and the benefit to the affected species. The plan shall include a minimum of five years of until the performance standards for restoration of the threatened occurrence are met.

h. Reporting Program. The project owner shall submit annual progress reports that include: quantitative measurements of the projects' progress in meeting the enhancement/restoration project success criteria, detailed description of remedial actions taken or proposed and contact information for the responsible parties.

i. Contingency Plan. Describe the contingency plan for failure to meet annual success criteria.

j. Long-term Protection. Include proof of long-term protection for the restoration site. For private lands this could include conservations easements or other deed restrictions. Projects on public lands must be protected under a Wilderness designation, Bureau of Land Management (BLM), BLM Area of Critical Environmental Concern (ACEC), BLM Desert Wildlife Management Area (DWMA), BLM or other agency Research Natural Area, National Park lands, or State Park lands, or under a conservation easement or equivalent protection on Department of Defense lands.

Subsection C: Mitigation through Avoidance

1. Mitigation through Avoidance of Perimeter Occurrences. The project may elect to mitigate impacts to gravel milk-vetch in part through

avoidance of occurrences located along the project boundary under the following conditions: a) the avoidance includes a buffer surrounding the occurrence that is adequate, subject to approval by the CPM, for maintaining the long-term viability of the occurrence, and b) the avoided occurrence and its buffer are placed under a permanent conservation easement and protected and managed as described for mitigation through acquisition in subsection A, above. An "adequate buffer" shall ensure protection from the edge effects of the project (no less than a 100-foot setback from the project development) and can protect the ecosystem processes necessary for maintaining the habitat.

Subsection D: Other Provisions

1. Preservation of the Germplasm of Affected Special-Status Plants. This is not an alternative to mitigation by acquisition or restoration, but is a required contingency measure for all significantly affected special-status plants as a contingency in the event of mitigation failure. Seeds shall be collected from the affected special-status plants occurrences onsite prior to construction to conserve the germplasm. The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long-term storage of the seed shall be the responsibility of the project owner.
2. Criteria for Adjusting Mitigation Ratio for New special-status plant occurrences found during 2013 surveys. Due to the potential for finding additional offsite occurrences of Torrey's joint-fir, gravel milk-vetch, Wheeler's skeletonweed, and Preuss' milk-vetch (see explanation in Staff Rebuttal, page 17, tn-69495) the project owner may conduct pre-construction surveys in 2013. If the discovery of new occurrences results in a downgrading by the California Natural Diversity Database (CNDDB) of the CNDDB Element Rank by from an S1 to S2, the species will be mitigated as an S2 species. If the new occurrences result in a downgrading from S1 to S3 ("vulnerable but not under immediate threat of extinction") or the proportion of the statewide distribution affected by the project is less than 10 percent, then mitigation for that species shall no longer be required.
3. In-Lieu Mitigation. Compensatory special-status plant mitigation requirements may be fulfilled at the election of the project owner by using an in-lieu funding option for acquisition or enhancement/restoration of special-status plant occurrences. The in-lieu mitigation approach would be consistent with the provisions included in BIO-25 (In-Lieu Fee and Advanced Mitigation Option) with the exception that the in-lieu option may also be exercised for approved special-status plant restoration/enhancement projects. In-lieu payments for special-status plant mitigation shall only be approved for land trusts in existence for a minimum of three years. Stewardship fees

shall be adequate for the long-term management and legal defense of the acquired lands or easement. Any proposals to exercise the in-lieu option would be subject to review and approval by the CPM.

Verification: No fewer than 90 days prior to the start of project ground-disturbing activities, the project owner shall submit to the CPM for review and approval a conceptual proposal for mitigation that meets the criteria and performance standards described above.

The project owner shall provide the CPM, no less than 30 days prior to the start of any project related ground-disturbing activities, written verification that an approved financial security in accordance with this condition of certification has been established.

No later than June 15 of the first summer following the Final Decision, the project owner shall provide the CPM documentation that seed has been collected for all the affected species and submitted to either Rancho Santa Ana Botanical Garden Seed Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden.

No later than 30 days following the discovery of any new occurrences of Torrey's joint-fir, Wheeler's skeletonweed, gravel milkvetch, or Preuss' milkvetch, the project owner shall submit raw GPS data, metadata, and CNDDB field forms to the CPM. The project owner shall immediately provide written notification to the CPM if a state- or federal-listed plant species is detected.

No later than 18 months following project approval, the project owner shall submit a draft acquisition proposal to the CPM describing the parcels intended for purchase, and a conceptual management and enhancement plan for the acquired lands according to the minimum requirements described under subsection A (Mitigation through Acquisition and Preservation) of this condition.

If the project elects to fulfill mitigation obligations through enhancement/restoration, the project owner shall submit a draft enhancement/restoration plan, according to the minimum requirements described under subsection B (Mitigation through Restoration/Enhancement) described above, no later than 18 months following project approval.

The project owner, or an approved third party, shall complete and provide written verification of the completion of the approved acquisition, and/or the start of an approved enhancement/restoration project, no later than 36 months following project approval.

If NFWF or another approved third party is being used for the acquisition or enhancement/restoration through the in-lieu mitigation option, the project owner shall ensure that funds needed to accomplish the mitigation are transferred in timely manner to ensure completion of acquisition or the start of enhancement/restoration project prior to the 36-month deadline.

No fewer than 30 days after acquisition of the property the project owner shall deposit the funds required for long term management, as described above, and provide proof of the deposit to the CPM.

The implementation phase of an approved enhancement/restoration project shall be completed within five years of initiation. The annual report describing the progress of the enhancement/restoration shall be prepared according to requirements under subsection B ("Monitoring" and "Reporting Requirements") and submitted as part of the Annual Compliance Report.

BOTANIST QUALIFICATIONS AND DUTIES

BIO-21 The project owner's approved Designated Biologist shall oversee the selection and hiring of qualified botanist(s) to implement the specific tasks specified below; a full-time Designated Botanist position is not required. The Designated Biologist shall submit to the CPM for approval the resume, at least three references, and contact information for the qualified botanist(s) to fulfill the tasks below. The resume(s) shall demonstrate, to the satisfaction of the CPM the appropriate education and experience to accomplish the assigned botanical resource tasks. The tasks listed below may be performed by the Designated Biologist if he/she meets the minimum qualifications described below.

Botanist(s) must meet the following minimum qualifications:

1) Demonstrated knowledge of: a) general plant taxonomy and natural community ecology; b) familiarity with the plants of the area, including special status species; and c) familiarity with natural communities of the project area;
2) At least five years experience conducting floristic field surveys;
3) At least five years experience working in the California Desert region;
4) Familiarity with the appropriate state and federal statutes related to plants and protocols or guidelines for conducting botanical inventories; and
5) At least five years experience analyzing the impacts of development on native plant species and natural communities.

Tasks requiring a qualified botanist shall include the following:

1) Advise the project owner's construction and operation managers, and the Designated Biologist on the implementation of botanical resource conditions of certification;
2) Conduct and/or train, supervise and coordinate botanical resources compliance efforts as described in BIO-18 (Weed Management Plan) and BIO-19 (Special-status Plant Avoidance and Minimization Measures);
3) Conduct and/or train, supervise, and coordinate marking any offsite special-status plant Environmentally Sensitive Areas (ESAs) that occur within 100 feet of the project boundary and inspect the integrity of the ESA signage at appropriate intervals for compliance with conditions of

certification affecting or relating to special-status plants as described in BIO-19;

4) Prepare the Weed Management Plan as described in BIO-18 and conduct and/or train, supervise, and coordinate the surveying and monitoring required in the plan;

5) Consult and/or prepare the Special-status Plant Compensatory Mitigation plans for enhancement/restoration and/or proposals for acquiring compensation lands, and conduct and/or train, supervise, and coordinate monitoring required in the plans; and

6) Conduct and/or train and supervise the Designated Biologist in the implementation of BIO-23 (Groundwater-dependent Vegetation Monitoring).

Verification: At least 60 days prior to construction-related ground disturbance, the project owner shall submit the resume to the CPM for a botanist to conduct the tasks described above. Once approved, the project owner shall provide written verification to the CPM that the qualified botanist is available to implement the required mitigation measures during construction.

STATE WATERS COMPENSATORY MITIGATION AND IMPACT AVOIDANCE & MINIMIZATION MEASURES

BIO-22 To satisfy requirements of California Fish and Game Code sections 1600 and 1607, the project owner shall implement measures contained herein for: 1) compensating unavoidable impacts to all waters of the state located within the project footprint, and 2) for avoiding and minimizing accidental, incidental and indirect impacts to state waters located outside the project footprint. For purposes of this condition, “project footprint” means all lands contained within the boundaries of the project components, including access roads, utility and transmission alignments, staging areas, and temporary construction areas. Avoidance and minimization measures for work within or adjacent to waters shall be implemented during construction, operation, and decommissioning, including site mobilization.

1. Compensatory Mitigation. The project owner shall acquire and preserve under a permanent conservation easement a parcel or parcels of land that contain jurisdictional state waters in an amount equal to the area of state waters delineated within the project footprint and mitigated at a ratio of 2:1 (two acres for every acre of state waters onsite) for permanent impacts to habitat functions and values. This ratio assumes that impacts to the hydrologic and geomorphic functions will be minimized by not diverting streams around the site in artificial channels. If the channels are diverted around the site, the mitigation ratio shall increase to a ratio of 3:1. The project owner shall provide associated funding for the long-term stewardship of the acquired lands, as specified below.

a. Selection Criteria. Compensation lands for impacts to state waters shall meet the following criteria:

   i. Located in California and within the Pahrump Valley Hydrologic Unit. If the project owner demonstrates that suitable compensation lands are not available within Pahrump Valley, lands may be acquired in California Valley, or the California portions of Sandy (Mesquite) Valley and Stewart Valley or other adjacent watersheds;

   ii. Contain waters in a general physiographic setting similar to the affected waters (i.e., alluvial fan washes) or that provide similar habitat function and values. Proposed mitigation sites shall be described in terms of habitat function and values, in the context of the habitat function and values that were impacted at the project site, in a proposal subject to approval by the CPM in consultation with CDFG;

   iii. Contain waters of a similar or better quality than the affected waters. Subject to review and approval of the CPM in consultation with CDFG, lands degraded by unauthorized off-road vehicles (ORV) may be considered if the project owner can demonstrate that the unauthorized ORV can be excluded and controlled with road decommissioning and signage;

   iv. Contain waters that are hydrologically unimpaired upstream by dams or diversions. Subject to review and approval of the CPM in consultation with CDFG, impaired waters may be considered if it can be demonstrated that the hydrologic functions can be restored and are accompanied by a restoration proposal;

   v. Do not contain hazardous wastes that cannot be removed; and

   vi. Contain water and mineral rights as part of the acquisition, unless the CPM, in consultation with CDFG, agrees in writing to the acceptability of the land.

b. Integrating Special-Status Plant Mitigation with Other Mitigation Lands. Any portion of the acquired Desert Tortoise or other required compensation lands that meets the criteria above for state waters may be used to fulfill that portion of the obligation for state waters mitigation.

c. Security for Implementation of Mitigation: The project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of state waters as described in this condition. These funds shall be used solely for implementation of the measures associated with the project. Financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or security prior to initiating ground-

disturbing project activities. Prior to submittal to the CPM, the mitigation security shall be approved by the CPM, in consultation with CDFG. The final amount due shall be determined by updated appraisals and the PAR analysis conducted pursuant to **BIO-12** (Desert Tortoise Compensatory Mitigation).

d. Prepare Management Plan for Stewardship of Acquired Lands: The project owner shall submit a draft State Waters Mitigation Management Plan subject to review and approval by the CPM in consultation with CDFG. The goal of the plan is to protect the integrity of the washes and their habitat functions and values from unauthorized ORV and other threats, or to restore degraded functions and values as described in #2 (a) above. Acquired lands must be protected in perpetuity under a conservation easement as described in **BIO-12** (Desert Tortoise Compensatory Mitigation).

e. Compensation Lands Acquisition Requirements. The project owner shall comply with the requirements relating to acquisition of the compensation lands described in **BIO-12** (Desert Tortoise Compensatory Mitigation).

2. Avoidance and Minimization Measures. The measures described below shall be implemented during construction, operation, and closure for any project-related activity that may directly or indirectly affect offsite waters adjacent to the project boundary, and to minimize impacts to the hydrologic and geomorphic functions of waters onsite, including water quality. Such activities include ground or vegetation disturbing activities, weed and vegetation management activities, and pre-construction mobilization. The project owner shall provide a discussion of work in or adjacent to waters of the state, and the avoidance and minimization measures employed to protect offsite waters from accidental or indirect effects in the Annual Compliance Reports.

   a) Guidelines for Stream Crossings. The project owner shall minimize disturbance to surface drainage patterns and sediment transport in watercourses downstream of the project. Arizona crossings shall be employed for improvements to project access roads wherever such crossings do not present a safety hazard and where the roadbed elevation allows the construction of such crossings. Crossings shall be constructed to accommodate the full natural width of the channel (bank-to-bank) for single-thread channels, and the full width of the floodplain for braided distributary channels. Streams that have been graded for temporary construction access shall be restored to original contours and surface drainage patterns and shall be stabilized according to specifications in **SOIL-1**.

   b) Diffuser Design. For any diverted watercourse, the project owner shall maintain pre-development surface drainage patterns

downstream of the project, in location and approximate volume rate of flows. Flows shall not be discharged indiscriminately as sheet flow across the entire length of the diffusers, irrespective of the natural surface drainage patterns, but shall instead be designed to discharge within existing watercourse boundaries downstream, or within the active floodplain of braided distributary stream types.

c) Documentation at the Site and Project Entry. The project owner shall provide a copy of this condition from the Energy Commission Final Decision to all contractors, subcontractors, and the owner's project supervisors and Designated Biologist. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any Energy Commission (CEC) personnel upon demand.

d) Best Management Practices (BMPs). A site-specific SWPPP will be implemented in accordance with requirements of the Construction General Permit (CGP). The SWPPP will identify appropriate BMPs, as well as monitoring, sampling and inspections consistent with the project's calculated risk level. During construction, operation, closure, and pre-construction mobilization, the following BMPs shall be implemented to avoid accidental impact during construction or indirect effects to state waters:

   i) During the pre-construction planning stage identify gravel storage areas, staging areas, access roads, parking, turnarounds, and equipment refueling & maintenance areas to minimize impacts to any delineated state waters outside of the permitted work area. Staging, storage, equipment maintenance and re-fueling shall be located a minimum of 30 feet from the uphill side of streams and their active floodplain to protect water quality downstream. The boundaries of those work areas shall be clearly marked on all final site plan and construction drawings.

   ii) Prior to the start of construction, establish the stream zones offsite or outside the permitted work area that are adjacent to work activities as Environmentally Sensitive Areas (ESAs). No earth-moving activities, vegetation removal, vehicles, heavy equipment, material storage, equipment maintenance or re-fueling, or other construction activities shall be permitted within the ESAs. Work shall not begin until the boundaries of the ESAs are delineated on the ground with orange safety netting where they occur adjacent to work activities (e.g., along the project boundary) under supervision of the Biological Monitor. The ESAs shall be depicted on all final maps and specifications.

   ~~iii) Construction activities shall be timed with awareness of precipitation forecasts, and shall be started only if the local~~

~~weather forecast predicts no probability of rain for a period of 72 24 hours. Construction activities shall cease and water quality, erosion and sediment control measures shall be implemented prior to storm events to prevent erosion and sedimentation, and contamination of stormwater runoff. Activities outside of the sensitive areas described above are not confined to this time period, but at no time shall heavy equipment operate during wet weather. Extra sediment, pollutant, and erosion control materials shall be stockpiled onsite to address any unanticipated rain events.~~

iv) The project owner shall minimize road building, construction activities and vegetation clearing on streams within the site wherever possible by limiting the width of the work area. Access to the site shall be on existing access roads.

v) In the event of wet weather, the project owner shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter streams outside the permitted work area, or be placed in locations that may be subjected to storm runoff. Prior to the start of work, including any equipment move-on or materials storage, install silt-fencing, straw bales, sediment catch basins, straw or coir logs or rolls, or other sediment barriers to keep erodible soils and other pollutants from entering state waters outside the permitted work area.

vi) No broken concrete, debris, soil, silt, sand, gravel, rubbish, cement or concrete wash water, oil or petroleum products, or other contaminants shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into waters of the state outside the permitted work area. The contractor shall immediately contain and clean up any petroleum or other chemical spills with absorbent materials such as sawdust or cat litter. For other hazardous materials, follow cleanup instructions on the package.

e) Changes of Conditions. A formal notification shall be provided to the CPM and CDFG if a change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a project; the biological and physical characteristics of a project area; or the laws or regulations pertinent to the project as defined below. A copy of the change of conditions notification shall be included in the annual reports or until it is deemed unnecessary by the CPM, in consultation with CDFG. A change in biological conditions includes, but is not limited to, the following: the presence of biological resources within or adjacent to the project area, whether native or non-native, not previously known to occur in the area; or the presence of biological resources

within or adjacent to the project area, whether native or non-native, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations. A change in physical conditions includes unexpected, substantial physical changes that result from project implementation, and do not include the types of changes that are typical of alluvial fan stream systems; such changes include, but are not limited to, the following: an adverse, substantial change in the morphology of a river, stream, channel or lake, such as the lowering of a bed or scouring of a bank, or substantial changes in stream form and configuration caused by storm events; the substantial movement of a river or stream channel to a different location; a substantial reduction of or other change in vegetation on the bed, channel, or bank of a drainage that is outside of approved vegetation management; or substantial changes to the hydrologic regime such as fluctuations in the timing or volume of water flows in a river or stream.

Verification: No less than 60 days prior to beginning project ground-disturbing activities, the project owner shall provide to the CPM design drawings of drainage diffusers or other discharge points depicting how these structures restore pre-development drainage patterns (location and rate of flows) to any watercourses located downstream of the project boundaries. At the same time the project owner shall provide design drawings for temporary and permanent stream crossings.

No less than 30 days prior to the start of construction-related ground disturbance activities, the project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that the above BMPs will be implemented.

The project owner shall provide the CPM, no less than 30 days prior to the start of any project related ground-disturbing activities, written verification that an approved security for compensatory mitigation in accordance with this condition of certification has been established. A draft proposal for compensatory land acquisition shall be submitted no later than 18 months following project approval.

Acquisition shall be completed within 36 months following project construction ~~approval~~ and evidenced by a copy of the final recorded deed showing transfer of mitigation land or documentation of other approved mitigation transaction as approved by the CPM.

No less than 90 days prior to the acquisition of the compensation lands, the project owner shall submit a ~~formal~~ draft acquisition proposal, including Property Analysis Record (PAR), to the CPM and CDFG. A draft management plan for the acquired lands shall be submitted to the CDFG and CPM no less than 60 days after acquisition of the compensation land.

GROUNDWATER-DEPENDENT VEGETATION

BIO-23 The project owner shall prepare and implement a draft and final Groundwater-dependent Vegetation Monitoring Plan (GDVMP) according to the performance standards described below. The GDVMP, in conjunction with the Groundwater Monitoring, Mitigation, and Reporting Plan (**WATER SUPPLY-4**), is designed to detect and/or *avoid* potential impacts to groundwater-dependent ecosystems (GDEs) located near the project from project-related groundwater drawdown. The GDVMP shall employ a "Before-After, Control-Impact" (BACI) study design (baseline data and controls) to identify the pre-pumping range of variation in GDE plant moisture stress or other ecological variables included in the GDVMP. One objective of the GDVMP is to establish the range of variation in measured ecological variables and ensure that the project is not responsible for changes in GDEs that are within the measured range of inter- and intra-annual variation. ~~normal Adverse effects, as detected through monitoring, beyond to ensure the project is not responsible for effects that fall within normal inter- and intra-annual variability in of plant moisture stress, or the influence of climate factors or area pumping wells.~~ The GDVMP requires the use of ~~standardized,~~ objective, sensitive, and *quantitative* field measurements that can detect the early warning signs of plant moisture stress. ~~that: 1) are routinely made performed by plant ecologists, plant physiological ecologists or and agriculturists to measure and identify determine ecological variables important in assessing the health of GDEs, plant moisture stress, and 2) protect the nearby GDEs by identifying potential adverse effects to GDEs in an early stage of development providing early warning signs of impending adverse effects.~~ The GDE field data collected will identify if there is a downward trend in the health of the GDEs. If a health decline is identified, an evaluation will be conducted to determine if (a) there is a connection with lowering of groundwater levels and (b) if and to what extent that lowering of groundwater levels is associated with project-related drawdown beyond the thresholds established in WATER SUPPLY-4. **WATER SUPPLY-4** also defines triggers for adaptive management to be implemented if groundwater level data indicate an impending drawdown at the nearby GDEs at or beyond the threshold at which adverse effects to the GDEs could occur. The GDVMP also defines minimum standards for evidence that would be considered for adjusting the project-related drawdown trigger in **WATER SUPPLY-4** at the project boundary in 0.5 ft increments if data demonstrate no adverse effects to the GDEs. ~~The CPM shall consult the BLM Nevada and BLM California State Lead for Soil, Water, Air and Riparian Programs, the BLM Southern Nevada District and Barstow District Hydrologist and Botanist, and Inyo County Water Department in the review of the draft GDVMP and annual monitoring reports.~~ The GDVMP shall meet the performance standards, monitoring objectives, monitoring methods, and guidelines for content of the plan specified in this condition.

1. Trigger for Adaptive Management. If the trigger for adaptive management set forth ~~water levels in either of the Power Block 1 or Power Block 2 Onsite Monitoring Wells identify a water level decline at the property boundary due to project related drawdown during construction or operation, as described~~ in **WATER SUPPLY-4** occurs, the project owner shall ~~stop project pumping or~~ implement adaptive management measures as described in **WATER SUPPLY-4** ~~until the project owner provides evidence, subject to approval by the CPM, that demonstrates:~~

   ~~a) the pumping can be reduced or modified to maintain groundwater levels above the~~ 0.5 ft ~~drawdown trigger at the project boundary; or~~

   ~~b) the drawdown trigger was exceeded due to factors other than the project pumping and the project did not contribute to the drawdown; or~~

   ~~c) through vegetation monitoring and soil coring described in this condition, and predictive water level trend analysis described in **WATER SUPPLY-4**, subsection C.2, that a greater groundwater drawdown will not result in significant adverse impacts to the groundwater dependent vegetation.~~

2. Peer Review. The draft GDVMP that is developed by the project owner shall undergo a peer review by three ~~or more~~ recognized experts in sampling and monitoring plant populations; responses of desert phreatophytes (groundwater-dependent plants) to drought stress or a declining groundwater table; and biostatistics. The peer reviewers shall be selected and organized by the CPM, in consultation with the BLM and Inyo County as described in this condition. The cost of the peer review shall be paid by the project owner at a cost not to exceed 40 hours per reviewer. The peer review panel described above is required only for the review of the draft GDVMP; all other approvals shall be made by the CPM, in consultation with BLM and Inyo County as described in this condition. The project owner shall incorporate changes and prepare and submit a final GDVMP to the CPM and the other parties as described in the Verification section of this condition.

3. Monitoring Objectives and Performance Standards. The goal of the monitoring is to avoid potential significant adverse impacts to the mesquite habitats and other nearby GDEs from project groundwater pumping before it results in any plant mortality or any drawdown-related stress outside the range of normal variation from which the GDEs cannot recover fully within one season following detection. The objectives of the GDVMP shall be to monitor the project effects of groundwater pumping on GDEs at a level of detail necessary for: a) avoiding significant adverse effects to the GDEs; and b) distinguishing project effects from the effects of background trends or measurements that are within the range of variation of the baseline data collected (normal inter- and intra-

annual variability) in plant moisture stress or other ecological indicators. Distinguishing project water level effects from background effects or the effects of nearby wells shall be accomplished through the monitoring plan described in **WATER SUPPLY-4**.

4. Definitions. "Sampling", as used in this condition, is the process of selecting a part of something with the intent of showing the quality or nature of the whole. "Baseline monitoring" is the assessment of existing (pre-pumping) conditions to provide a standard, or baseline against which future change is measured. "Normal seasonal variation" in plant moisture stress or other ecological indicators shall be established by collecting baseline measurements that encompass the range of inter and intra-annual variation. "Variability within the population" shall be established by measuring differences in the moisture stress indicators or other ecological variables between plots. “GDEs” shall include any plant communities dominated by obligate or facultative "phreatophytes" (groundwater-dependent plants). GDEs also include aquatic habitats that are groundwater-supported, such as seeps and springs. A "significant adverse effect to the GDEs" shall be defined as measurements of plant moisture stress or other ecological measurements that are detected outside the range of intra- and inter-annual variation collected in the reference plots from which a GDE cannot fully recover in one season and correspond to a decline in groundwater that exceeds the trigger as described in **WATER SUPPLY-4**. ~~from which a groundwater-dependent species or habitat cannot fully recover in one season following detection.~~

5. Minimum Standards for Revising Drawdown Trigger. The water level-based trigger for adaptive action is described in **WATER SUPPLY-4**. This adaptive action threshold may be revised in 0.5-foot increments if the project owner can demonstrate that a greater groundwater drawdown ~~greater than 0.5 feet~~ will not result in significant adverse impacts to the groundwater-dependent vegetation. Modification of the drawdown trigger requires consideration of the following evidence: a) observed water level changes in monitoring wells; b) quantitative field measures of groundwater-dependent vegetation response to lowering water tables as described in this condition; c) updated predictive hydrologic trend analyses from well data collected during project operation, as described in **WATER SUPPLY-4**; and d) the range of normal inter- and intra-annual variation, and background trends in plant moisture stress or other ecological indicators as described under “Field Techniques”. Soil cores, as described in this condition, may be used in conjunction with the vegetation monitoring to demonstrate maximum effective rooting depths. BLM and Inyo County shall be consulted regarding the resetting of the adaptive action trigger.

   Alternatively, the pumping can be reduced or modified to maintain groundwater levels above the drawdown trigger described in **WATER SUPPLY-4** at the project boundary. ~~Using methods described in WATER~~

~~SUPPLY-4 for statistical trend analysis of monitoring well data, the project must provide evidence, subject to approval by the CPM in consultation with BLM and Inyo County, that the maximum pumping rate will not exceed the maximum drawdown indicated by the data for the life of the project.~~

6. Prepare an Updated Inventory and Map of Groundwater-dependent Species and Ecosystems (GDEs). The map of GDEs prepared for this project (CH2 2011c, Data Response Set 1A, Figure D48-1), shall be amended to include seeps and springs identified by BLM or through ground surveys and any plant community dominated by obligate or facultative phreatophytes within the predicted cone of depression. The map shall be accompanied by a list of ~~all~~ the dominant obligate and facultative phreatophytes contained in each GDE. Phreatophytes observed in the project botanical resource study area include (but are not limited to): honey mesquite (*Prosopis glandulosa*); four-wing saltbush (*Atriplex canescens*); allscale (*A. polycarpa*); spiny saltbush (*A. spinifera*); bush seep-weed (*Suaeda moquinii*); desert baccharis (*Baccharis sergiloides*); alkali goldenbush (*Isocoma acradenia*); the non-native salt cedar (*Tamarix* spp.). Monitoring within upland plant communities is not required.

7. Permanent Monitoring Plots. The vegetation monitoring shall be conducted within GDEs located: a) east of the project and nearest to the project boundary, as depicted in HHSEGS Data Response Set 1A, Figure D48-1 (CH2 2011c); and b) beyond the project's influence ("controls"). No GDEs occur within the project boundary and monitoring plots shall not be located in upland plant communities that are not groundwater-dependent.

8. Baseline and Long-term Data Collection. Baseline data may be collected at all vegetation monitoring sites beginning as soon as feasible ~~upon project approval~~ to obtain ~~determine~~ measurements of moisture stress or other ecological variables. Data will be used to identify the range of variation in moisture stress of other selected ecological variables and establish the range of "normal" intra- and inter-seasonal variation. ~~seasonal variation.~~ At a minimum, baseline data collection shall begin immediately upon approval of the final GDVMP. Baseline data may continue after the start of project pumping as long as ~~no~~ project-related drawdown has not reached the initial trigger ~~is detected~~ (see **WATER SUPPLY-4, item B.2.**)~~, or collected from the reference plots located just beyond the project's actual cone of depression.~~ Any future change detected shall be adjusted for normal seasonal or annual variation and background trends from other sources. Data collection shall continue for the life of the project unless the CPM determines, in consultation with BLM and Inyo County, as described in **Water Supply-4.** ~~that project-related drawdown at the project boundary and not expected based on refined hydrologic trend analysis, or pumping ceases~~

~~and groundwater levels have returned to baseline levels, the project may stop or reduce its monitoring obligation.~~

9. Timing. Vegetation monitoring shall be conducted twice annually, and one monitoring event shall be timed to occur ~~during the same two week time period during the peak growing period and~~ during the hottest and driest time of year locally. ~~Intra-annual variability shall be established from measurements made during the same 2-week window during the summer dry season.~~ Timing of well monitoring shall be conducted as described in **WATER SUPPLY-4**.

10. Monitoring Controls. The GDVMP shall employ a BACI study design using reference monitoring sites ~~located just outside of the project's zone of influence~~ to compare differences between the control and impact sites ~~(near-project plots within the project's influence)~~ before the project pumping begins and after the project pumping begins. This controls both for natural variability between plots, temporal variability associated with annual weather differences, and any regional background decline in water levels. If the differences through the years remain the same, meaning that measured variables do not exceed the range of seasonal or annual variation detected, and are not positively correlated with a project related groundwater decline, then it is assumed the project has not affected the GDEs. The sampling design will be described in the draft and final GDVMPs, but the layout of the monitoring network may contain the following elements. The control sites would be paired spatially ~~in space~~, not in the time of monitoring data collection ~~not in time~~; each monitoring site in the impact area shall be paired with a site in the control area. The control and impact sites shall a) have an equal number of monitoring plots, and b) paired based on vegetation and other environmental factors being similar. Control and treatment sites shall be positioned relative to the monitoring wells. Additionally, data from the control and treatment sites shall be averaged and the difference over time compared (see description of repeated measures analysis of variance in Chapter 6, "Impact Assessment" of *Statistics for Environmental Science and Management* (Manly 2008)[12].

11. Field Techniques for Measuring Plant Moisture Stress and other Ecological Variables. Vegetation monitoring shall employ only sensitive, reliable, and objective field measures of moisture stress or other ecological variables that can detect the earliest warning signs of an adverse effect. These will be described in the GDVMP and may include, but are not limited to: 1) xylem (stem) water potential; 2) gas exchange rate, ~~and~~ 3) transpiration rate, 4) other quantitative measures of plant vigor, and 5) other variables determined through coordination with the peer review panel. Field techniques that rely solely on visual estimates,

[12] Manly 2008 – Manly, B., *Statistics for Environmental Science and Management* (2nd ed), CRC Press/Chapman and Hall, 292 pp.

die-back, or photo monitoring shall not be used. Photo monitoring may be used to supplement – not replace – the quantitative measures described above. The GDVMP must demonstrate knowledge of the ~~biology~~ ecology of the GDE species and their physiological and morphological responses to stress. The draft and final Plan shall describe how the data will be recorded in the field, processed and stored.

12. Minimum Standards for Sampling Design. Unless otherwise specified in the peer-reviewed final GDVMP, the sample size and sampling design shall be sufficient to achieve adequate statistical power of 90 percent or better, with a Type I error rate (false-change error rate) of 10 percent or less.

    As described in the GDVMP, additional steps following the initial data collection may be implemented to increase the quality and efficacy of the monitoring program. These could include, but are not limited to: ~~Following collection of the first year baseline data,~~ statistical analysis ~~shall be conducted~~ to refine the power analysis and evaluate the adequacy of the sampling design, addition or deletion of monitoring plots, modification of sampling technique or equipment or other actions. If the analysis of baseline data (at the near-project plots and reference plots) indicates that the sampling design is insufficient to achieve adequate statistical power, the design shall be modified (for example, by adding additional monitoring sites or reducing the deviation among sampling units) to attain the desired level of precision. The sampling design ~~shall~~ may be informed by *Statistics for Environmental Science and Management* (Manly 2008), Chapter 6 "Impact Assessment", and from *Measuring and Monitoring Plant Populations* (Elzinga et al. 1998)[13] and *Sampling Vegetation Attributes* (Coulloudon et al. 1999)[14], or other guidance as suggested by the owner or peer review team.

13. Soil Core Sampling. Subject to approval by BLM and any other ~~local, state, or~~ federal permit requirements, soil core samples may be collected from the GDEs on BLM lands offsite to establish the maximum effective rooting depth of the mesquite and other co-dominant phreatophytes. The coring method must provide a continuous core that will provide visual examination of roots and root nodules, soil profile, and soil moisture.

14. Parties Responsible for Monitoring. All data collection shall be conducted or supervised by a qualified botanist (**BIO-21**). The Designated Biologist may conduct monitoring under the training and supervision of a qualified

[13] Elzinga et al 1998 – Elzinga, C.L., D.W. Salzer, and J.W. Willoughby. 1998. *Measuring and monitoring plant populations*. BLM Technical Reference 1730-1, Denver, CO. 477 pp.

[14] Coulloudon 1999– Coulloudon, B., *Sampling Vegetation Attributes.* BLM Technical Reference 1734-4.National Business Center, Denver, CO. 158 pp.

botanist. Monitoring data shall be quality-checked annually by the CPM, in consultation with BLM and Inyo County.

15. Access to Monitoring Data. The project owner shall provide accurate and complete monitoring data and make the data available to the CPM at all times. ~~Copies of monitoring reports and data shall be available to the CPM and BLM at all times. The CPM reserves the right to issue an order to decrease pumping stop, reduce, or modify after giving notice to the project owner if the CPM determines the monitoring data provided is incomplete or inaccurate.~~

16. ~~Semi-~~Annual Monitoring Report. Monitoring Reports shall be ~~submitted~~ provided to the CPM, BLM, and Inyo County twice annually and shall include: names and contact information for the responsible parties and monitoring personnel; description of sampling and monitoring techniques used for each attribute; quantitative results of the vegetation and groundwater level monitoring; ~~comparison of predicted versus actual water table declines;~~ trends and other analyses based on the statistical tests and methods described in this condition and in **WATER SUPPLY-4;** photos of the monitoring plots and controls; conclusions and recommendations. The first and second annual monitoring reports shall also include an appropriate statistical analysis of baseline monitoring data to assess whether the sampling design was adequate to attain sampling precision as described above, and how the study design was adjusted to ensure performance standards were met.

Verification: No less than 90 days prior to start of any project-related groundwater pumping, other than levels determined by the CPM, in consultation with BLM and Inyo County, to be *de minimis*, the project owner shall provide a draft GDVMP to the CPM for peer review, as described in this condition. The project owner shall also provide copies of the draft GDVMP to BLM Nevada and BLM California state leads for Soil, Water, Air and Riparian Programs, and the BLM Southern Nevada District and BLM Barstow District Hydrologist and Botanist, and Inyo County Water Department.

The CPM shall organize the peer review and comments shall be received no later than 45 calender days from receipt of the draft GDVMP. The CPM shall also consult BLM Nevada and BLM California state leads for Soil, Water, Air and Riparian Programs, and the BLM Southern Nevada District and BLM Barstow District Hydrologist and Botanist, and Inyo County Water Department.

If comments are not received from the CPM, peer review group and interested parties within 45 calender days of the parties' receipt of the draft GDVMP, the ~~CPM~~ project owner shall proceed and submit the final GDVMP ~~comments~~ to the CPM and interested parties ~~project owner~~ within 90~~60~~ days of submission ~~receipt~~ of the draft GDVMP.

~~The project owner shall revise the draft based on the recommendations of the peer review within 45 days, and submit the final GDVMP to the CPM for review and approval. The CPM shall submit the final GDVMP to the interested parties listed above.~~

The CPM shall submit the annual monitoring reports to the interested parties and comments must be received within 45 calender days of receipt of the monitoring reports.

~~Collection of baseline monitoring data shall begin immediately following the acceptance of the final GDVMP.~~ The project owner may elect to begin baseline vegetation monitoring at any time following the Final Decision.

The GDVMP annual monitoring reports shall be provided to the CPM, BLM Nevada and BLM California state leads for Soil, Water, Air and Riparian Programs, and the BLM Southern Nevada District and BLM Barstow District Hydrologist and Botanist, and Inyo County Water Department no more than 90 days following the collection of the ~~summer dry season data and every spring and fall~~ annual monitoring dataset. ~~and every spring and fall thereafter for the life of the project~~. The duration of monitoring will be as specified in **WATER SUPPLY-4**.

BIO-24 This condition of certification was deleted by staff in the FSA.

IN-LIEU FEE AND ADVANCED MITIGATION OPTION

BIO-25 The project owner may choose to satisfy certain compensatory mitigation obligations identified for desert tortoise, burrowing owls, special status plants, ~~and~~ jurisdictional waters, and other mitigation requirements set forth in the Commission's certification by paying an in lieu fee to the Department of Fish and Game pursuant to Fish and Game code sections 2069 and 2099, or the Advanced Mitigation option available through the California Department of Fish and Game's Advanced Mitigation Program established by Senate Bill X8 34 or other in lieu fee programs that may be established. If the project owner chooses to satisfy its mitigation obligations through ~~this~~ the Department's program, the advance mitigation lands shall meet the criteria as stated in all applicable compensation conditions of certification in the Commission Decision.

Verification: If electing to use ~~this~~ these options, the project owner shall notify the CPM that it has chosen to take advantage of the options available through the Department of Fish and Game's program or other in lieu fee programs that may be established. If approved by the CPM ~~and~~ in consultation with CDFG, the project owner shall provide written verification that adequate funds have been provided to CDFG to meet the mitigation requirements identified in the Commission ~~Decision~~ certification and that the advanced mitigation lands meet selection criteria as stated in all applicable compensation conditions of certification in the Commission ~~Decision~~ certification. As with the other compensatory mitigation, this compensatory mitigation must be completed within 18 months of the start of any project-related ground disturbing activity.

If the project owner chooses the Advance Mitigation option, the owner shall submit to the CPM a copy of the final recorded deed showing transfer of mitigation land or

other mitigation transaction documentation as approved by the CPM, within 60 days of CDFG finalizing land transactions.

FACILITY CLOSURE, REVEGETATION, AND RECLAMATION PLAN

BIO-26 Condition language not agreed upon by staff and applicant.

Cultural Resources

RECOMMENDED CONDITIONS OF CERTIFICATION

CUL-1 through-3: Condition language not agreed upon by staff and applicant.

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, 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. 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: 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.

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.

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 through-11: Condition language not agreed upon by staff and applicant.

Facility Design

CONDITIONS OF CERTIFICATION

GEN-1 The project owner shall design, construct, and inspect the project in accordance with the 2010 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, or demolition~~, repair, or maintenance~~ of the completed facility. All on-site 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 2010 CBSC is in effect, the 2010 CBSC provisions shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

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

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

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

GEN-2 Before submitting the initial engineering designs for CBO review, the project owner shall furnish the CPM and the CBO with a schedule of facility design submittals, and master drawings and master specifications list. The master drawings and master specifications list shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures, systems, and equipment. Major structures, systems, and equipment are structures and their associated components or equipment that are necessary for power production, costly or time consuming to repair or replace, are used for the storage, containment, or handling of hazardous or toxic materials, or could become potential health and safety hazards if not constructed according to applicable engineering LORS. The schedule shall contain the date of each submittal to the CBO. To facilitate audits by Energy Commission staff, the project owner shall provide specific packages to the CPM upon request.

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

GEN-3 The project owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. These fees may be consistent with the fees listed in the 2010 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 on-site 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 on-site 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 on-site 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 2010 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 2010 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 2010 CBC. All on-site 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 or newer version) files, with restricted (password-protected) printing privileges, on archive quality compact discs.

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

1. Design of the proposed drainage structures and the grading plan;
2. An erosion and sedimentation control plan;
3. A construction storm water pollution prevention plan (SWPPP);
4. Related calculations and specifications, signed and stamped by the responsible civil engineer; and
5. Soils, geotechnical, or foundation investigations reports required by the 2010 CBC.

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

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

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

and construction in the affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.

CIVIL-3 The project owner shall perform inspections in accordance with the 2010 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, the project owner shall submit plans, calculations and other supporting documentation to the CBO for design review and acceptance for all project structures and equipment identified in the CBO-approved master drawing and master specifications lists. The design plans and calculations shall include the lateral force procedures and details as well as vertical calculations.

Construction of any structure or component shall not begin until the CBO has approved the lateral force procedures to be employed in designing that structure or component.

The project owner shall:

1. Obtain approval from the CBO of lateral force procedures proposed for project structures;
2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports, and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (for example, highest loads, or lowest allowable stresses shall govern). All plans, calculations, and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations, and specifications;
3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations, and other required documents of the designated major structures prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation;
4. Ensure that the final plans, calculations, and specifications clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. The final designs, plans, calculations, and specifications shall be signed and stamped by the responsible design engineer; and
5. Submit to the CBO the responsible design engineer's signed statement that the final design plans conform to applicable LORS.

Verification: At least 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 the CBO-approved master drawing and master specifications list, the project owner shall submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM.

The project owner shall submit to the CPM, in the next monthly compliance report, a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and comply with the requirements set forth in applicable engineering LORS.

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

1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters);
2. Concrete pour sign-off sheets;
3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques);
4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results,

welder qualifications, certifications, qualified procedure description or number (ref: AWS); and

5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2010 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 2010 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 2010 CBC shall, at a minimum, be designed to comply with the requirements of that chapter.

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

The project owner shall send copies of the CBO approvals of plan checks to the CPM in the following monthly compliance report. The project owner shall also transmit a copy of the CBO's inspection approvals to the CPM in the monthly compliance report following completion of any inspection.

MECH-1 The project owner shall submit, for CBO design review and approval, the proposed final design, specifications and calculations for each plant major piping and plumbing system listed in the CBO-approved master drawing and master specifications list. The submittal shall also include the applicable QA/QC procedures. Upon completion of construction of any

such major piping or plumbing system, the project owner shall request the CBO's inspection approval of that construction.

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

- American National Standards Institute (ANSI) B31.1 (Power Piping Code);
- ANSI B31.2 (Fuel Gas Piping Code);
- ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code);
- ANSI B31.8 (Gas Transmission and Distribution Piping Code);
- NACE R.P. 0169-83;
- NACE R.P. 0187-87;
- NFPA 56;
- Title 24, California Code of Regulations, Part 5 (California Plumbing Code);
- Title 24, California Code of Regulations, Part 6 (California Energy Code, for building energy conservation systems and temperature control and ventilation systems);
- Title 24, California Code of Regulations, Part 2 (California Building Code); and
- Inyo 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 the CBO-approved master drawing and master specifications list, the project owner shall submit to the CBO for design review and approval the final plans, specifications, and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

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

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

The project owner shall:

1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated, and installed in accordance with the appropriate section of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or other applicable code. Vendor certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and
2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes.

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

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

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

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

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the

project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to the CPM.

ELEC-1 Prior to the start of any increment of electrical construction for all electrical equipment and systems 110 Volts or higher (see a representative list, below) the project owner shall submit, for CBO design review and approval, the proposed final design, specifications, and calculations. Upon approval, the above listed plans, together with design changes and design change notices, shall remain on the site or at another accessible location for the operating life of the project. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS. All on-site 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 diagram for the 13.8 kV, 4.16 kV and 480 V systems;
2. system grounding drawings;
3. lightning protection system; and
4. hazard area classification plan.

B. Final plant calculations must establish:

1. short-circuit ratings of plant equipment;
2. ampacity of feeder cables;
3. voltage drop in feeder cables;
4. system grounding requirements;
5. coordination study calculations for fuses, circuit breakers and protective relay settings for the 13.8 kV, 4.16 kV and 480 V systems;

~~6. system grounding requirements;~~

6. lighting energy calculations; and
7. 110 volt system design calculations and submittals showing feeder sizing, transformer and panel load confirmation, fixture schedules and layout plans.

C. The following activities shall be reported to the CPM in the monthly compliance report:

1. Receipt or delay of major electrical equipment;
2. Testing or 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.

HAZARDOUS MATERIALS

PROPOSED CONDITIONS OF CERTIFICATION/ MITIGATION MEASURES

HAZ-1 The project owner shall not use any hazardous materials not listed in **Hazardous Materials Appendix A**, below, or in greater quantities than those identified by chemical name in **Hazardous Materials Appendix A,** unless approved in advance by the Compliance Project Manager (CPM).

Verification: The project owner shall provide to the CPM in the Annual Compliance Report, a list of hazardous materials contained at the facility.

HAZ-2 The project owner shall concurrently provide a Hazardous Materials Business Plan to the Southern Inyo Fire Protection District (SIFPD) and Inyo County Environmental Health Services Department (ICEHSD) for review and comment, and the CPM for review and approval. After receiving comments from SIFPD, ICEHSD, and the CPM, the project owner shall ~~reflect all~~ address comments received ~~recommendations~~ in the final documents. If no comments are received from the county or SIFPD within 30 days of submittal, the project owner may proceed with preparation of final documents upon receiving comments from the CPM. Copies of the final Hazardous Materials Business Plan shall then be provided to the ICEHSD and the Southern Inyo Fire Protection District for information, and to the CPM for approval.

Verification: At least 60 days prior to receiving any hazardous material on the site for commissioning or operations, the project owner shall provide a copy of a final Hazardous Materials Business Plan to the CPM for approval.

HAZ-3 The project owner shall develop and implement a Safety Management Plan for ~~delivery of~~ liquid hazardous materials delivered in a quantity of 300 gallons or more. The plan shall include procedures, protective equipment requirements, training and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of incompatible hazardous materials. This plan shall be applicable during construction, commissioning, and operation of the power plant.

Verification: At least sixty (60) days prior to the delivery of any liquid hazardous materials in a quantity of 300 gallons or more to the facility, the project owner shall provide a Safety Management Plan as described above to the CPM for review and approval.

HAZ-4 At least thirty (30) days prior to commencing construction, a site-specific Construction Site Security Plan for the construction phase shall be prepared and made available to the CPM for review and approval. The Construction Security Plan shall include the following:

1. Perimeter security consisting of fencing enclosing the construction area;

2. Security guards;

3. Site access control consisting of a check-in procedure or tag system for construction personnel and visitors;

4. Written standard procedures for employees, contractors and vendors when encountering suspicious objects or packages on-site or off-site;

5. Protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; and

6. Evacuation procedures.

Verification: At least thirty (30) days prior to commencing construction, the project owner shall notify the CPM that a site-specific Construction Security Plan is available for review and approval.

HAZ-5 The project owner shall prepare a site-specific Operation Security Plan for the operational phase that shall be made available to the CPM for review and approval. The project owner shall implement site security measures addressing physical site security and hazardous materials storage. The level of security to be implemented shall not be less than that described below (as per NERC 2002[15]).

The Operation Security Plan shall include the following:

1. Permanent full perimeter fence or wall, at least eight feet high around the Power Block and Solar Field;

2. Main entrance security gate, either hand operable or motorized;

3. Evacuation procedures;

4. Protocol for contacting law enforcement, and the CPM in the event of suspicious activity or emergency;

5. Written standard procedures for employees, contractors and vendors when encountering suspicious objects or packages on-site or off-site;

6. a. A statement (refer to sample, attachment "A") signed by the project owner certifying that background investigations have been conducted on all project personnel. Background investigations shall be restricted to ascertain the accuracy of employee identity and employment history, and shall be conducted in accordance with state and federal law regarding security and privacy;

   b. A statement(s) (refer to sample, attachment "B") signed by the contractor or authorized representative(s) for any permanent

[15] North American Electric Reliability Council, www.nerc.com/files/V1-Communications.pdf

contractors or other technical contractors (as determined by the CPM after consultation with the project owner) that are present at any time on the site to repair, maintain, investigate, or conduct any other technical duties involving critical components (as determined by the CPM after consultation with the project owner) certifying that background investigations have been conducted on contractor personnel that visit the project site. Background investigations shall be restricted to ascertaining the accuracy of employee identity and employment history, and shall be conducted in accordance with state and federal law regarding security and privacy.

7. Site access controls for employees, contractors, vendors, and visitors;

8. Closed Circuit TV (CCTV) monitoring system, recordable, and viewable in the power plant control room and security station (if separate from the control room) capable of viewing, at a minimum, the main entrance gate; and

9. Additional measures to ensure adequate perimeter security consisting of either:

   a. Security guard present 24 hours per day, seven days per week, OR

   b. Power plant personnel on-site 24 hours per day, seven days per week and one of the following:

   1) The CCTV monitoring system required in number 8 above shall include cameras that are able to pan, tilt, and zoom (PTZ), have low-light capability, are recordable, and are able to view 100% of the perimeter fence to the power block, the outside entrance to the control room, and the front gate from a monitor in the power plant control room; **OR**

   2) Perimeter breach detectors **or** on-site motion detectors for the power block.

The project owner shall fully implement the security plans and obtain CPM approval of any substantive modifications to the security plans. The CPM may authorize modifications to these measures, or may require additional measures, such as protective barriers for critical power plant components (e.g., transformers, gas lines, compressors, etc.) depending on circumstances unique to the facility or in response to industry-related standards, security concerns, or additional guidance provided by the U.S. Department of Homeland Security, the U.S. Department of Energy, or the North American Electrical Reliability Council, after consultation with appropriate law enforcement agencies and the project owner.

Verification: At least 30 days prior to the initial receipt of hazardous materials on-site, the project owner shall notify the CPM that a site-specific Operations Site Security Plan is available for review and approval. In the Annual Compliance Report, the project owner shall include a statement that all current project employee and

appropriate contractor background investigations have been performed, and updated certification statements are appended to the Operations Security Plan. In the Annual Compliance Report, the project owner shall include a statement that the Operations Security Plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.

HAZ-6: The project owner shall Comply with NFPA 56(PS) and not allow any fuel gas pipe cleaning activities on site, either before placing the pipe into service or at any time during the lifetime of the facility, that involve "flammable gas blows" where natural (or flammable) gas is used to blow out debris from piping and then vented to atmosphere. Instead, an inherently safer method involving a non-flammable gas (e.g. air, nitrogen, steam) or mechanical pigging shall be used. Exceptions to any of these provisions will be made only if no other satisfactory method is available, and then only with the approval of the CPM.

Verification: At least 30 days before any fuel gas pipe cleaning activities conducted onsite involving fuel gas pipe of four-inch or greater external diameter, the project owner shall submit a copy of the Fuel Gas Pipe Cleaning Work Plan which shall indicate the method of cleaning to be used, what gas will be used, the source of pressurization, and whether a mechanical PIG will be used, to the CBO for information and to the CPM for review and approval.

Geology & Paleontology

PROPOSED CONDITIONS OF CERTIFICATION

General Conditions of Certification with respect to engineering geology are proposed under Conditions of Certification **GEN-1, GEN-5**, and **CIVIL-1** in the **FACILITY DESIGN** section. Proposed paleontological Conditions of Certification **PAL-1** through **PAL-7** follow.

PAL-1 The project owner shall provide the compliance project manager (CPM) with the resume and qualifications of the proposed 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 a 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 for review and approval.

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 the PRS deems necessary on the project. Paleontologic Resource Monitors (PRMs) shall have the equivalent of the following qualifications:

- BS or BA degree in geology or paleontology and one year 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 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 range. If the footprint of the project or its linear facilities change, 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: 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.

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.

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~~ to be consistent with the guidelines of the Bureau of Land Management (BLM2008-009 et seq.) and 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 for review and approval. 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 paleontologic sensitivity;

3. Information that the PRS or PRM has the authority to halt or redirect construction in the event of a discovery or unanticipated impact to a paleontological resource;

4. Instruction that employees are to halt or redirect work in the vicinity of a find and to contact their supervisor and the PRS or PRM;

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

6. A WEAP certification of completion form signed by each worker indicating that he/she has received the training (see attached form); and

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

Verification: At least 30 days prior to ground disturbance, the project owner shall submit the proposed WEAP to the CPM for review and approval. The WEAP shall include the brochure with the set of reporting procedures for workers to follow.

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.

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.

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 paleontologic monitoring, including any incidents of non-compliance or any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.

Verification: 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 **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 CPM.

Land Use

PROPOSED CONDITIONS OF CERTIFICATION

LAND-1 is deleted**.**

LAND-2: Condition language was not agreed upon by staff and applicant

LAND-3 is deleted.

LAND-4 The project owner shall ensure that any ~~proposed~~ permanent signs comply with the Chapter 18.75 Sign section of the Inyo County Zoning Ordinance.

Verification: At least thirty (30) days prior to the installation of any permanent sign(s), the project owner shall submit evidence to the CPM for review and approval that the proposed signs will conform to the guidelines. The submittal shall show the location of all proposed sign(s) and include evidence of review and any comments by the County of Inyo on signage.

Noise

PROPOSED CONDITIONS OF CERTIFICATION

PUBLIC NOTIFICATION PROCESS

NOISE-1 Prior to the start of ground disturbance, the project owner shall notify all residents within one mile of the project site boundaries, by mail or by other effective means, of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project. If the telephone is not staffed 24 hours a day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction where it is visible to passersby. This or a similarly effective telephone number shall be maintained throughout the operational life of the project.

Verification: At least 15 days prior to ground disturbance, the project owner shall transmit to the compliance project manager (CPM) a statement, signed by the project owner's project manager, stating that the above notification has been performed, and describing the method of that notification. This communication shall also verify that the telephone number has been established and posted at the site, and shall provide that telephone number.

NOISE COMPLAINT PROCESS

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

- use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to each noise complaint;
- attempt to contact the person(s) making the noise complaint within 24 hours;
- conduct an investigation to determine the source of noise in the complaint;
- if the noise is project related, take all feasible measures to reduce the source of the noise; and
- submit a report documenting the complaint and actions taken. The report shall include: a complaint summary, including the final results of noise reduction efforts and, if obtainable, a signed statement by the

complainant, stating that the noise problem has been resolved to the complainant's satisfaction.

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

EMPLOYEE NOISE CONTROL PROGRAM

NOISE-3 The project owner shall submit to the CPM for review and approval a noise control program. The noise control program shall be used to reduce employee exposure to high (above permissible) noise levels during construction in accordance to the applicable OSHA and Cal-OSHA standards.

Verification: At least 30 days prior to the start of ground disturbance, the project owner shall submit the noise control program to the CPM. The project owner shall make the program available to Cal-OSHA upon request.

NOISE RESTRICTIONS

NOISE-4 The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the operation of the project will not cause the noise levels due to normal steady-state plant operation alone to exceed an hourly average of 51 dBA L_{eq} measured at or near monitoring location CR1 and an hourly average of 49 dBA L_{eq} measured at or near monitoring location M1. During transients, start-up and shut-down operations the noise level shall not exceed the allowable steady state noise limits by more than 3 dBA. The above noise limits exclude emergency operations.

No new pure-tone components (as defined in Noise Table A1) shall be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints[16].

When the project first achieves a sustained output of 90 % or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey at monitoring locations CR1 and M1, or at a closer location acceptable to the CPM. This survey shall also include measurement of one-third octave band sound pressure levels to ensure that no new pure-tone noise components have been caused by the project.

[16] A legitimate complaint refers to a complaint about noise that is caused by the HHSEGS project as opposed to another source (as verified by the CPM). A legitimate complaint constitutes a violation by the project of any noise condition of certification (as confirmed by the CPM), which is documented by an individual or entity affected by such noise.

The measurement of power plant noise for the purposes of demonstrating compliance with this condition of certification may alternatively be made at a location, acceptable to the CPM, closer to the plant (e.g., 400 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution at the affected residence. The character of the plant noise shall be evaluated at the affected receptor locations to determine the presence of pure tones or other dominant sources of plant noise.

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

If the results from the noise survey indicate that pure tones are present, mitigation measures shall be implemented to reduce ~~eliminate~~ the pure tones to a level that complies with Noise Table A1.

Verification: The survey shall take place within 30 days of the project first achieving a sustained output of 90 % or greater of rated capacity. Within 15 days after completing the survey, the project owner shall submit a summary report of the survey to the CPM. Included in the survey report will be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. When these measures are in place, the project owner shall repeat the noise survey.

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

OCCUPATIONAL NOISE SURVEY

NOISE-5 Following the project's attainment of a sustained output of 90 % or greater of its rated capacity, the project owner shall conduct an occupational noise survey to identify any noise hazardous areas in the facility.

The survey shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations, sections 5095-5099 (Article 105) and Title 29, Code of Federal Regulations, section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure.

The project owner shall prepare a report of the survey results and, if necessary, identify proposed mitigation measures to be employed in order to comply with the applicable California and federal regulations.

Verification: Within 30 days after completing the survey, the project owner shall submit the noise survey report to the CPM. The project owner shall make the report available to OSHA and Cal-OSHA upon request.

CONSTRUCTION RESTRICTIONS

NOISE-6 Heavy equipment operation and noisy construction work relating to any project features, including pile driving, shall be restricted to the times delineated below:

Mondays through Saturdays: 7 a.m. to 7 p.m.

Construction activities may be performed outside the above hours, with CPM approval.

The project owner shall ensure that all project-related haul ~~Haul~~ trucks and other engine-powered equipment ~~shall be~~ are equipped with adequate mufflers.

Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.

The concrete batch plant shall be located a minimum of 1.5 miles from any part of Tecopa Road/Old Spanish Trail Highway. If the project owner needs to relocate the batch plant less than 1.5 miles from the highway, the project owner shall furnish analyses demonstrating equivalent noise attenuation to the 1.5-mile setback, which shall be reviewed and approved by the CPM.

Verification: Prior to ground disturbance, the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction of the project.

At least 5 days prior to pouring of concrete outside of the above hours, the project owner shall submit a statement to the CPM, specifying the time of night and the number of nights for which concrete pouring will occur, and the approximate distance of this activity to noise receptor sites CR1 and M1, and the expected sound levels at these receptors. Also prior to pouring of concrete beyond the above hours, the project owner shall notify all residents within one mile of the project site boundaries prior to the commencement of this activity, by mail or by other effective means~~, of the commencement of this activity~~.

If the project owner needs to relocate the batch plant less than 1.5 miles from the highway, the project owner shall furnish analyses demonstrating equivalent noise attenuation to the 1.5-mile setback, which shall be reviewed and approved by the CPM.

STEAM BLOW RESTRICTIONS

NOISE-7 If a traditional, high-pressure steam blow process is used the project owner shall equip steam blow piping with a temporary silencer that quiets the noise of steam blows to no greater than 89 dBA measured at a distance of 50 feet. The steam blows shall be conducted between 7:00~~8:00~~ a.m. and 7:00~~5:00~~ p.m. unless arranged with the CPM such that offsite impacts would not cause annoyance to receptors. If a low-pressure, continuous steam blow process is used, the project owner shall submit to

the CPM a description of the process, with expected noise levels and planned hours of steam blow operation.

Verification: At least 15 days prior to the first steam blow, the project owner shall notify all residents or business owners within one mile of the project site boundary. The notification may be in the form of letters, phone calls, fliers, or other effective means as approved by the CPM. The notification shall include a description of the purpose and nature of the steam blow(s), the planned schedule, expected sound levels, and explanation that it is a one-time activity and not part of normal plant operation.

PILE DRIVING MANAGEMENT

NOISE-8 The project owner shall notify the residents of Charleston View and M1 of pile driving prior to start of this activity. Pile driving shall be performed in a manner to reduce, as much as practicable, the potential for any legitimate noise complaints from the surrounding communities.

Verification: At least 5 days prior to first pile driving, the project owner shall notify the residents of Charleston View and M1 of the duration of this activity. In this notification, the project owner shall state that it will perform this activity in a manner to reduce the potential for any legitimate noise complaints, as much as practicable. The project owner shall submit a copy of this notification to the CPM prior to the start of pile driving.

NOISE-9 The project owner shall make the provisions specified below to reduce the noise levels propagated by plant construction activities for property owners with residences in proximity to the project site and that portion of the Old Spanish Trail Highway extending from the California-Nevada border to a point 5 miles west of the border. This condition does not preclude a resident from using the Noise Complaint Program in **NOISE-2.**

a. The project owner shall request that the county reduce posted traffic speeds on the described 5-mile segment of the Old Spanish Trail Highway. While it is the intent to reduce the noise from plant construction traffic, the reduced posted speed limit shall be part of traffic and congestion management and shall not create any unsafe conditions on the portions of the highway that have reduced speeds. The project owner shall make all reasonable efforts to provide the county the information needed, and to assist it in evaluating and implementing a reduced speed. The project owner shall reimburse the County of Inyo for the removal and installation of speed limit-related signage or, at request of the County of Inyo, install the signage approved by the County. The reduced speed limit is intended for the duration of the construction period, but can be made permanent based on the traffic safety and management needs of the local residents and the county.

b. The project owner shall make available to residents that live within 2,000 feet of the 5-mile section of Old Spanish Trail Highway described

above, barriers to address plant construction noise at the residence. At the request of property owners of existing residences within 2,000 feet of the 5-mile portion of Old Spanish Trail Highway, the project owner shall, in agreement with the property owner as to the design and location of the barrier, install a barrier located on their residential parcel. The barrier must be a minimum of eight feet tall and may be up to 300 feet long. The materials shall have a Sound Transmission Class (STC) of at least 25. The barrier shall be of adequate construction to comply with Inyo County codes, and the materials shall be safe and effective for the duration of project construction. The project owner is responsible to remove the barrier within one year of achieving commercial operation, unless the property owner wants to retain responsibility for it. The barrier may be removed sooner at the request of the property owner, within 30 days of the request.

c. If the property owner wants a permanent barrier, the project owner will pay the cost of the temporary barrier to the property owner who will be responsible for the additional cost and construction.

Verification: Six months prior to the start of construction, or such shorter time as approved by the CPM, the project owner shall submit a formal request to the County of Inyo to reduce posted speed limits on the Old Spanish Trail Highway from the California-Nevada border to a point 5 miles west of the border, and provide a copy of the request to the CPM. Subsequent to the initial request, the project owner shall provide to the CPM copies of correspondence with the county pertaining to the reduced speed limit.

No later than 90 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a portfolio of temporary barrier designs that will be made available to the property owners to provide options for material, color, and treatment.

No later than 30 days prior to the CPM's approval, the project owner shall contact property owners of existing residences within 2,000 feet of the 5-mile portion of the highway by registered mail to notify them of the request to the county to reduce posted speed limits on the above portion of the Old Spanish Trail Highway and of the availability of barriers for property owners. The project owner shall complete construction of barriers within 60 days of agreement with the property owner of the type, style and location of the barrier.

The project owner shall provide in the Monthly Compliance Report a summary of the program, including the following:

a. Copies of correspondence with Inyo County and the property owners

b. Parcel numbers of property owners contacted

c. Actions taken to ensure property owners have been informed of the program

d. List of installations by parcel number

Socioeconomics

PROPOSED CONDITIONS OF CERTIFICATION

SOCIO-1 The project owner shall pay the one-time statutory school facility development fees to the Death Valley Unified School District as required by Education Code Section 17620.

Verification: At least 30 days prior to the start of project construction, the project owner shall provide to the Compliance Project Manager (CPM) proof of payment to the Death Valley Unified School District of the statutory development fee.

SOCIO-2 Information regarding illegal and unauthorized camping shall be provided to all onsite personnel at the time of their Worker Environmental Awareness (WEAP) training.

Verification: At least 60 days prior to the start of any project-related pre-construction site mobilization, the project owner shall provide to the CPM (for review and approval, and to Inyo County for review and comment), electronic copies of the information regarding illegal and unauthorized camping that will be provided to all onsite personnel at the time of their WEAP training. At least 30 days prior to the start of any project-related pre-construction site mobilization, the project owner will provide two copies of the final information regarding illegal camping to the CPM and implement the training for all workers at the time of their WEAP training.

SOCIO-3 This condition has been deleted.

Soils

PROPOSED CONDITIONS OF CERTIFICATION

DRAINAGE, EROSION, SEDIMENTATION, CONTROL PLAN (DESCP)

SOILS-1 Prior to site mobilization, the project owner shall obtain the CPM's approval for a site specific DESCP that ensures protection of water quality and soil resources of the project site and all onsite 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 off-site flooding potential, and identify all monitoring and maintenance activities. The project owner shall complete all engineering plans, reports, and documents necessary for the CMP to conduct a review of the proposed project and provide a written evaluation as to whether the proposed grading, drainage improvements, and flood management activities comply with all requirements presented herein. The DESCP may be combined with Condition of Certification SOILS-2 (Construction SWPPP). The plan shall be consistent with the grading and drainage plan as required by Condition of Certification **CIVIL-1** and shall contain the following elements:

Vicinity Map: A map shall be provided indicating the location of all project elements with depictions of all major geographic features to include watercourses, washes, irrigation and drainage canals, major utilities, 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, underground utilities, roads, and drainage facilities. With legend, indicate types and locations of storm water control measures built to permanently control storm water pollution. Distinguish between pollution prevention, treatment, and containment devices. Identify sanitary waste facilities. Adjacent property owners shall be identified on the plan maps. All maps shall be presented at a legible scale

Drainage: The DESCP shall include the following elements:

a. Topography. Topography for offsite areas are required to define the existing upstream tributary areas to the site and downstream to provide enough definition to map the existing storm water flow and flood hazard. Spot elevations shall be required where relatively flat conditions exist.

b. Proposed Grade. Proposed grade contours shall be shown at a scale appropriate for delineation of onsite ephemeral washes, drainage ditches, and tie-ins to the existing topography.

c. Hydrology. Existing and proposed 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. Show each discharge location from the site.

d. Hydraulics. Provide hydraulic calculations to support the selection and sizing of the onsite drainage network, diversion facilities and BMPs.

Watercourses and Critical Areas: The DESCP shall show the location of all onsite and nearby watercourses including washes, irrigation and drainage canals, and drainage ditches, and shall indicate the proximity of those features to the construction site. Maps shall identify high hazard flood prone areas. Maps shall show with legend locations of expected sources of pollution generation (i.e. outdoor work and storage areas, delivery areas, trash enclosures, fueling areas) during construction activities and separate maps for operational activities.

Clearing and Grading: The plan shall provide a delineation of all areas to be cleared of vegetation, areas to be preserved, and areas where vegetation would be cut to allow clear movement of the heliostats. 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.

Soil Wind and Water Erosion Control: The plan shall address exposed soil treatments to be used during construction and operation of the proposed project for both road and non-road surfaces including specifically identifying all chemical based dust palliatives, soil bonding, and weighting agents appropriate for use at the proposed project site that would not cause adverse effects to vegetation; BMPs shall include measures designed to prevent wind and water erosion including application of chemical dust palliatives after rough grading to limit water use. All dust palliatives, soil binders, and weighting agents shall be approved by the CPM prior to use.

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 construction, and final grading/stabilization). 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.

Agency Comments: The DESCP shall include copies of recommendations from the County of Inyo and the California Department of Fish and Game (CDFG). If the DESCP is combined with the Construction SWPPP, the document shall include copies of recommendations from the Lahontan Regional Water Quality Control Board (RWQCB).

Monitoring Plan: Monitoring activities shall include routine measurement and photographs of the volume of accumulated sediment in the onsite drainage ditches, and storm water diversions.

Verification: The DESCP shall be consistent with the grading and drainage plan as required by Condition of Certification **CIVIL-1**, and relevant portions of the DESCP shall be submitted to the chief building official (CBO) for review and approval. In addition, the project owner shall do all of the following:

- No later than ninety (90) days prior to start of site mobilization, the project owner shall submit a copy of the DESCP to Inyo County for review and comment. If the DESCP is combined with the Construction SWPPP, the project owner shall also submit a copy of the document to the Lahontan RWQCB for review and comment. The CPM shall consider comments received when approving the DESCP. If comments are not received within 30 days after project owner's submittal of the DESCP to Inyo County (and the Lahontan RWQCB, if required), it will be assumed that the reviewing agency has no comments for CPM consideration.
- 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 storm water BMP monitoring and maintenance activities.

CONSTRUCTION – NPDES GENERAL PERMIT (SOLAR PLANT 1 & 2)

SOILS-2 The project owner shall fulfill the requirements contained in State Water Resources Control Board's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWG, NPDES No. CAS000002* and all subsequent revisions and amendments. The project owner shall develop and implement a construction Storm Water Pollution Prevention Plan (SWPPP) for the construction of the project.

Verification: At least thirty (30) days prior to site mobilization, the project owner shall submit the construction SWPPP to the CBO and CPM and a copy shall be kept accessible onsite at all times. Within ten (10) days of its mailing or receipt, the project owner shall submit to the CPM any correspondence between the project owner and the Lahontan RWQCB about the general NPDES permit for discharge of storm water associated with this activity. This information shall include any updates to the construction SWPPP, a copy of the notice of intent sent by the project owner to the State Water Resources Control Board and the notice of termination.

INDUSTRIAL – NPDES GENERAL PERMIT (CONCRETE BATCH PLANT)

SOILS-3 For the operation of the temporary concrete batch plant, the project owner shall comply with the requirements of the State Water Resources Control Board's NPDES General Permit for Discharges of Storm Water Associated with Industrial Activities (Order No. 97-03-DWQ, NPDES No. CAS000001) and all subsequent revisions and amendments. The project owner shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the operation of the temporary concrete batch plant. The project owner may also submit a Notice of Non- Applicability (NONA) to the RWQCB to apply for an exemption to the general NPDES permit.

Verification: At least thirty (30) days prior to operation of the temporary concrete batch plant, the project owner shall submit copies to the CPM of the operational SWPPP and shall retain a copy on 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 Lahontan RWQCB about the general NPDES permit for discharge of storm water associated with this 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. A letter from the RWQCB indicating that there is no requirement for a general NPDES permit for discharges of storm water associated with industrial activity would satisfy this condition.

INDUSTRIAL – NPDES GENERAL PERMIT (SOLAR PLANT 1 & 2)

SOILS-4 For the operation of Solar Plant 1 and 2, the project owner shall comply with the requirements of the State Water Resources Control Board's NPDES General Permit for Discharges of Storm Water Associated with Industrial Activities (Order No. 97-03-DWQ, NPDES No. CAS000001) and all subsequent revisions and amendments. The project owner shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the operation of each solar plant. The project owner may also submit a Notice of Non- Applicability (NONA) to the RWQCB to apply for an exemption to the general NPDES permit.

Verification: At least thirty (30) days prior to operation of each solar plant, the project owner shall submit copies to the CPM of the operational SWPPP and shall retain a copy on 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 Lahontan RWQCB about the general NPDES permit for discharge of storm water associated with this 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. A letter from the RWQCB indicating that there is no requirement for a general NPDES permit for discharges of storm water associated with industrial activity would satisfy this condition.

STORM WATER DAMAGE MONITORING AND RESPONSE PLAN

SOILS-5: The project owner shall reduce impacts caused by large storms by ensuring heliostats and the west perimeter road (berm) withstand the 100-year storm event, establishing ongoing maintenance and inspection of storm water controls, and implementing a response plan to clean up damage and address ongoing issues.

The project owner shall ensure that the heliostats and west perimeter road (berm) are designed and installed to withstand storm water scour that may occur as a result of a 100-year, 24-hour storm event. The analysis of the storm event and resulting heliostat stability will be provided within a Pylon Insertion Depth and Heliostat Stability Report to be completed by the project owner. This analysis will incorporate results from site-specific geotechnical stability testing, as well as hydrologic and hydraulic storm water modeling performed by the project owner. The modeling will be completed using methodology and assumptions approved by the CPM.

The project owner shall also develop a Storm Water Damage Monitoring and Response Plan to evaluate potential impacts from storm water, including damage to west perimeter road (berm) and heliostats that fail due to storm water flow or otherwise break and scatter mirror debris or other potential pollutants on to the ground surface.

The basis for determination of pylon embedment depths and berm design shall employ a step-by-step process as identified below and approved by the CPM:

A. Determination of peak storm water flow within each sub-watershed from a 100-year event:

- Use of San Bernardino County (SBC) Hydrology Manual to specify hydrologic parameters to use in calculations; and
- HEC -1 and Flo-2D models will be developed to calculate storm flows from the mountain watersheds upstream of the project site, and flood flows at the project site, based upon hydrologic parameters from SBC.
- The use of dry wells or injection wells shall be considered for management of storm water flows that may affect the west perimeter road (berm). These infiltration devices shall be designed and operated in accordance with USEPA Class V Injection Well requirements. The groundwater recharge that may be achieved by these wells can be considered as credit for mitigation in accordance with **WATER SUPPLY-1**.

B. Determination of potential total pylon scour depth:

- Potential channel erosion depths will be determined using the calculated design flows, as determined in A above, combined with Flo-2D to model onsite sediment transport.
- Potential local scour will be determined using the calculated design flows, as determined in A above, combined with the Federal Highway Administration (FHWA) equation for local bridge pier scour from the FHWA 2001 report, “Evaluating Scour at Bridges.”

C. The results of the scour depth calculations and pylon stability testing will be used to determine the minimum necessary pylon embedment depth within the active channels. In the inactive portions of the alluvial fans that are not subject to channel erosion and local scour, the minimum pylon embedment depths will be based on the results of the pylon stability testing. Minimum pylon embedment depth within the retention area will be based on additional site-specific testing for pylon stability under conditions of saturated soil and standing water.

D. The results of the calculated peak storm water flows and channel erosion and heliostat scour analysis together with the recommended heliostat installation depths shall be submitted to the CPM for review and approval sixty (60) days before the start of heliostat installation.

The Storm Water Damage Monitoring and Response Plan shall be submitted to the CPM for review and approval and shall include the following:

- Detailed maps showing the installed location of all heliostats within each project phase;
- Description of the method of removing all soil spoils should any be generated;
- Each heliostat should be identified by a unique ID number marked to show initial ground surface at its base, and the depth of the pylon below ground;
- Minimum Depth Stability Threshold to be maintained of pylons to meet long-term stability for applicable wind, water (flowing and static), and debris loading effects;
- Above and below ground construction details of a typical installed heliostat;
- BMPs to be employed to minimize the potential impact of broken mirrors to soil resources;
- Construction plans and details of the western perimeter road (berm), including erosion control measures; Include an appendix showing analysis of the berm's function as discharge control (weir) and retention area (area and duration of standing water)
- Methods and response time of mirror cleanup and measures that may be used to mitigate further impact to soil resources from broken mirror fragments; and
- Monitoring, documenting, and restoring the adjacent offsite downstream property when impacted by sedimentation, berm damage, or broken mirror shards.

A plan to monitor and inspect periodically, before first seasonal and after every storm event:

- Security and Tortoise Exclusion Fence: Inspect for damage and buildup of sediment or debris
- Heliostats within drainages or subject to drainage overflow or flooding: Inspect for tilting, mirror damage, depth of scour compared to pylon depth below ground and the Minimum Depth Stability Threshold, collapse, and downstream transport.
- Drainage channels: Inspect for substantial migration or changes in depth, and transport of broken glass.
- Constructed diversion channels: Inspect for scour and structural integrity issues caused by erosion, and for sediment and debris buildup.
- Adjacent offsite downstream property: Inspect for changes in the surface texture and quality from sediment buildup, erosion, or broken glass.

Short-Term Incident-Based Response:

- Security and Tortoise Exclusion Fence: repair damage, and remove built-up sediment and debris.
- Heliostats: Remove broken glass, damaged structure, and damaged wiring from the ground, and for pylons no longer meeting the Minimum Depth Stability Threshold, either replace/reinforce or remove the mirrors to avoid exposure for broken glass.
- Drainage channels: no short-term response necessary unless changes indicate risk to facility structures.
- West perimeter road (berm) and constructed diversion channels: repair damage, maintain erosion control measures and remove built-up sediment and debris.

Long-Term Design-Based Response:

- Propose operation/BMP modifications to address ongoing issues. Include proposed changes to monitoring and response procedures, frequency, or standards.
- Replace/reinforce pylons no longer meeting the Minimum Depth Stability Threshold or remove the mirrors to avoid exposure for broken glass.
- Propose design modifications to address ongoing issues. This may include construction of active storm water management diversion channels and/or detention ponds.

Inspection, short-term incident response, and long-term design based response may include activities both inside and outside of the project boundaries. For activities outside of the project boundaries the owner shall ensure all appropriate environmental review and approval has been completed before field activities begin.

Verification: At least sixty (60) days prior to installation of the first pylon, the project owner shall submit to the CPM a copy of the Pylon Insertion Depth and Heliostat Stability Report for review and approval prior to construction. At least sixty (60) days prior to commercial operation, the project owner shall submit to the CPM a copy of the Storm Water Damage Monitoring and Response Plan for review and approval prior to commercial operation. The project owner shall retain a copy of this plan onsite at the power plant at all times. The project owner shall prepare an annual summary of the number of heliostats failed due to damage, cause and extent of the damage, and cleanup and mitigation performed for each damaged heliostat. The annual summary shall also report on the effectiveness of the berm against storms, including information on the damage and repair work or associated erosion control elements of the berm. The project owner shall submit proposed changes or revisions to the Storm Water Damage Monitoring and Response Plan to the CPM for review and approval.

PERIMETER DRAINAGE MANAGEMENT PLANT

SOILS-6: The project owner shall develop and implement a Perimeter Drainage Management Plan to reduce flooding and erosion damage to the section of Old Spanish Trail Highway/Tecopa Road adjacent to the project site. The post-development flood depth calculated for the 100-year, 24-hour storm shall not increase more than one foot at any point on Tecopa Road adjacent to the project site as a result of project construction.

The project owner shall provide a detailed hydraulic analysis utilizing FLO-2D which models pre- and post-development flood conditions for the 2-, 5-, 10-, 25-, and 100-year storm events. Boundaries of the analysis shall include the floodplain area from where Stump Springs area runoff flows cross the Nevada border to one mile west of the HHSEGS west property line. The methodology and assumptions for the modeling shall be reviewed and approved by the CPM.

The Perimeter Drainage Management Plan shall be submitted to the CPM for review and approval and shall incorporate the following:

- Vegetation shall be placed to promote infiltration and flow into the solar field. Vegetation planting and establishment shall comply with Condition of Certification **VIS-2**. Vegetation management shall include control of invasive vegetation as prescribed in Condition of Certification **BIO-18**. Fencing shall comply with VIS-2 and **BIO-9**.
- Landscape area between the roadway and perimeter fence shall implement erosion protection from flow velocity of two feet per second along the roadway and discharge from these flows to adjacent property west of the project site.
- Storm water control and conveyance structures (i.e. drop inlets, culverts) shall be designed to prevent desert tortoise from entering the structure or entering the project site. Localized ponding shall not remain longer than 24 hours.
- The use of dry wells or injection wells shall be considered for management of flood flows and artificial recharge of the groundwater aquifer in the project area. These infiltration devices shall be designed and operated in accordance with USEPA Class V Injection Well requirements. The groundwater recharge that may be achieved by these wells can be considered as credit for mitigation in accordance with **WATER SUPPLY-1**.

- Maintenance methods and scheduling shall be identified in the Plan to ensure proper operation of storm water control and conveyance structures and other Best Management Practices (BMPs)
- Elements of monitoring, inspection, and damage response (short-term and long-term) prescribed in Condition of Certification **SOILS-5** shall be implemented in maintenance of storm water conveyance and erosion control features identified in the Perimeter Drainage Management Plan.

Verification: At least sixty (60) days prior to perimeter fence installation, the project owner shall submit to the CPM a copy of the preliminary Perimeter Drainage Management Plan for review.

In combination with Condition of Certification **CIVIL-1**, at least fifteen (15) days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval. In the next monthly compliance report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.

Any proposed changes or revisions to the approved ~~Storm Water Damage Monitoring and Response~~ Perimeter Drainage Management Plan must be reviewed and approved by the CPM.

CONSTRUCTION WASTEWATER DISCHARGE

SOILS-7 Prior to hydrostatic test water discharge to land, the project owner shall fulfill the requirements contained in State Water Resources Control Board (SWRCB) *Order No. 2003-003-DWQ Statewide General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality (General WDRs)* and all subsequent revisions and amendments.

Prior to hydrostatic test water discharge to surface waters or designated Waters of the State, the project owner shall fulfill the requirements contained in Lahontan RWQCB *Order No. R6T-2008-0023 (Revised Waste Discharge Requirements and NPDES General Permit for Limited Threat Discharges to Surface Waters)* and all subsequent revisions and amendments.

Prior to transport and disposal of any facility construction-related wastewaters offsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project owner shall provide evidence that wastewater is disposed of at an appropriately licensed facility. The project manager shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements).

Verification: The project owner shall submit to the CPM copies of all relevant correspondence between the project owner and the SWRCB or Lahontan RWQCB about the hydrostatic test water discharge requirements within 10 days of its receipt or submittal. This information shall include copies of the Notice of Intent and Notice of Termination for the project. A letter from the SWRCB or Lahontan RWQCB indicating that there is no requirement for the discharge of hydrostatic test water would satisfy the corresponding portion of this condition.

Prior to transport and disposal of any facility construction-related wastewaters offsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project manager shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements). The project owner shall provide evidence to the CPM of proper wastewater disposal, via a licensed hauler to an appropriately licensed facility, in the monthly compliance report.

WASTEWATER COLLECTION SYSTEM

SOILS-8 The project owner shall recycle and reuse all process wastewater streams to the extent practicable. Prior to transport and disposal of any facility operation wastewaters that are not suitable for treatment and reuse onsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project owner shall provide evidence that industrial wastewater and contact storm water are being disposed of at an appropriately licensed facility. The project owner shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements). An annual summary of industrial wastewater discharge shall be submitted to the CPM in the annual compliance report.

Verification: Prior to transport and disposal of any facility operation wastewaters that are not suitable for treatment and reuse onsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project manager shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements). The project owner shall provide evidence to the CPM of proper industrial wastewater disposal, via a licensed hauler to an appropriately licensed facility, in the annual compliance report.

The project owner shall submit an industrial wastewater discharge summary report to the CPM in the annual compliance report for the life of the project operation. The report shall include the results of chemical analysis for proper disposal offsite, average TDS concentration, monthly range, monthly average, daily maximum within each month, and annual discharge volume by the project. After the first year and for

subsequent years, this information shall also include the yearly range and yearly average discharge volume by the project.

SEPTIC SYSTEM AND LEACH FIELD REQUIREMENTS

SOILS-9 The project owner shall comply with the requirements and all subsequent revisions and amendments of the Inyo County Environmental Health Services Department (Inyo County Codes 7.52.020 and 7.52.060), the California Plumbing Code (California Code of Regulations Title 24, Part 5), and the Lahontan RWQCB Basin Plan while designing, constructing, and operating the HHSEGS sanitary waste disposal facilities such as septic systems and leach fields. Compliance shall include an engineering report on the septic system and leach field design, operation, maintenance, and loading impact to groundwater.

The project owner shall submit all necessary information and the appropriate fee to the Inyo County Environmental Health Services Department to ensure that the project has complied with county sanitary waste disposal facilities requirements. Written assessments prepared by Inyo County regarding the project's compliance with these requirements must be submitted to the CPM for review and approval.

Verification: At least thirty (30) days prior to use of the septic systems, the project owner shall submit to the CPM for review and approval a written assessment prepared by Inyo County regarding the project's compliance with the requirements above.

Traffic and Transportation

PROPOSED CONDITIONS OF CERTIFICATION

TRANS-1 Roadway Use Permits and Regulations

The project owner or its contractor(s) or shipper(s) shall comply with limitations imposed by the Department of Transportation (Caltrans) District 8 and 11 and other relevant jurisdictions, including Nevada Department of Transportation (NDOT) and Inyo County, on vehicle sizes and weights, driver licensing, and truck routes. In addition, the project owner or its contractor(s) or shipper(s) shall obtain necessary transportation permits from all relevant jurisdictions for roadway use.

Verification: In the Monthly Compliance Reports (MCRs), the project owner shall report oversize and/or overweight permits received during that reporting period. In addition, the project owner shall retain copies of oversize and/or overweight permits and supporting documentation on-site for Compliance Project Manager (CPM) inspection if requested.

TRANS-2 Right-of-Way

The project owner shall offer to dedicate to the County of Inyo ~~24 feet of~~ right-of-way, as determined necessary with consultation with Inyo County, along Old Spanish Trail Highway to ensure adequate turn lanes and acceleration/deceleration lanes for construction traffic. Prior to the peak daily truck deliveries, the project owner shall have constructed the turn lanes and acceleration/deceleration lanes for construction traffic.

Verification: At least 90 days prior to start of site mobilization, the project owner shall provide evidence to the CPM that the dedication of right-of-way has been accepted and recorded by Inyo County; detailed construction plans that will identify improvements along Old Spanish Trail Highway and at the project entry points for review and comment by Inyo County and the CPM for review and approval. Prior to the peak daily truck deliveries (Month 6), the project owner shall have constructed the turn lanes and acceleration/deceleration lanes for construction traffic.

TRANS-3 Pavement Test and Restoration of All Public Roads, Easements, and Rights-of-Way

The project owner shall conduct a pavement test of Old Spanish Trail Highway between the state border and the western edge of the project site that would be utilized for project-related construction activities.

Based on results of the pavement test, at the start of construction, the project owner shall redesign and repave Old Spanish Trail Highway between the state border and the western edge of the project site as reasonably necessary to accommodate Project related truck construction traffic to and from the project site as well as existing general traffic on a

roadway that meets the minimum CalTrans standards for a roadway that will serve such purpose.

Upon commercial operation of the project, the project owner shall coordinate with Inyo County to restore Old Spanish Trail Highway between the state border and the western edge of the project site as reasonably necessary to safely accommodate Project related traffic as well as existing general traffic on a roadway that meets in the minimum CalTrans standards for a roadway that will serve such purpose. The project owner's responsibility to improve, repair, maintain or restore Old Spanish Trail Highway shall not include that portion of Old Spanish Trail Highway extending from the western boundary of the project site to SR 127.

Verification: Prior to the start of site mobilization, the project owner shall provide a copy of the pavement test to the CPM for review.

Sixty (60) days prior to the start of the construction, the project owner shall establish a schedule for completion and approval of the redesigning and/or repaving. Following completion of any public right-of-way redesigning and/or pavement replacement, the project owner shall provide documentation of any public right-of-way redesigning and/or pavement replacement to Inyo County for review and comment, and to the CPM for review and approval.

If damage to Old Spanish Trail Highway between the western boundary of the project site to the state line is identified by the project owner or Inyo County, the project owner shall immediately notify the CPM and Inyo County to identify the section of such public right-of-way to be repaired. At that time, the project owner shall establish a schedule for completion and approval of the repairs. Within ninety (90) days following completion of construction, the project owner shall initiate the restoration of the Old Spanish Trail Highway from the western boundary of the project site to the state line. Upon completion, the project shall inform Inyo County that such work has been completed and shall provide the CPM for approval a letter signed by Inyo County stating their satisfaction with the repairs.

TRANS-4 Truck Route

The Applicant is revising TRANS-4 "Heavy Truck Routes", in consultation with Inyo County, to reflect the terms of the agreement between the Applicant and Inyo County regarding heavy truck routes.

TRANS-5 Traffic Control Plan, Heavy Hauling Plan, and Parking/Staging Plan

The project owner shall prepare and implement a Traffic Control Plan (TCP) for the HHSEGS's construction and operations traffic. The TCP shall address the movement of workers, vehicles, and materials, including arrival and departure schedules and designated workforce and delivery routes.

The project owner shall consult with the Department of Transportation (Caltrans) District 8 Office; Department of Transportation (Caltrans) District 9 Office; Nevada Department of Transportation (NDOT); Inyo County; County of San Bernardino; Clark County and Nye County in the

preparation and implementation of the Traffic Control Plan (TCP). The project owner shall submit the proposed TCP to Caltrans District 8, 9, NDOT, Inyo County; County of San Bernardino; Clark County and Nye County in sufficient time for review and comment, and to the CPM for review and approval prior to the proposed start of construction and implementation of the plan. The Traffic Control Plan (TCP) shall include:

- Provisions for redirection of construction traffic with a flag person as necessary to ensure traffic safety and minimize interruptions to non-construction related traffic flow;
- Placement of necessary signage, lighting, and traffic control devices at the project construction site and lay-down areas;
- A heavy-haul plan addressing the transport and delivery of heavy and oversized loads requiring permits from the California Department of Transportation (Caltrans), Nevada Department of Transportation (NDOT) other state or federal agencies, and/or the affected local jurisdictions;
- Location and details of construction along affected roadways at night, where permitted;
- Temporary closure of travel lanes or disruptions to street segments and intersections during construction activities;
- Traffic diversion plans (in coordination with the County of Inyo, Caltrans, NDOT; County of San Bernardino; Clark County and Nye County) to ensure access during temporary lane/road closures;
- Access to residential and/or commercial property located near construction work and truck traffic routes;
- Ensure access for emergency vehicles to the project site;
- Advance notification to residents, businesses, emergency providers, hospitals, school districts, such as the Death Valley Unified School District, and the Front Sight Firearms Training Institute that would be affected when roads may be partially or completely closed;
- Traffic monitoring conducted by a traffic engineer of the ~~LOS~~ average delays to all vehicles of 60 seconds or more (for a period of at least 15 minutes) at the study intersections (SR 160/Old Spanish Trail Highway; SR 127/Old Spanish Trail Highway, and SR 127/Baker Boulevard) by the project owner's representative shall occur once per week, during the morning and afternoon peak hour during peak construction months. Monitoring would begin in Month 12 when 1,176 workers are projected (approximately 51 percent of the peak) and continue through the end of Month 24 when 1,293 workers are projected (approximately 56 percent of the peak). The findings shall be reported monthly to the CPM in the monthly compliance report or as necessary;

- ~~The~~ One or more of the following measures shall be implemented when the 15-minute traffic monitoring ~~conducted by a traffic engineer~~ identifies average delays to all vehicles of 60 seconds or more ~~LOS E conditions~~ at the intersection of SR 160/Old Spanish Trail Highway; ~~LOS D conditions at~~ SR 127/Old Spanish Trail Highway; ~~LOS F conditions at~~ SR 127/ Baker Boulevard; and access points along Old Spanish Trail Highway in consultation with Inyo County:
  - A work schedule and end-of-shift departure plan that would stagger Monday arrivals and Friday departures from the project site;
  - Carpooling - such as a Club Ride Program sponsored by the Regional Transportation Commission of Southern Nevada or similar program approved by the CPM, and;
  - Employer Sponsored Van Program designed to transport construction workers to the project site via a van or bus service. ~~15~~Multi-passenger ~~vans~~ vehicles shall be used to achieve a baseline carpool rate of 1.5 people per car for the California workforce and the higher carpool rate of 2.5 people per car when the day shift workforce reaches 1,000 employees shall be required.
- Identification of safety procedures for exiting and entering the site access gate;
- Parking/Staging Plan (PSP) for all phases of project construction and for project operation.

For any activity on public roads, the project owner shall apply for, receive and comply with all conditions of an encroachment permit from the affected jurisdiction.

Verification: At least 60 calendar days prior to the start of construction, the project owner shall submit the TCP to the applicable agencies for review and comment and to the CPM for review and approval. The project owner shall also provide the CPM with a copy of the transmittal letter to the agencies requesting review and comment and a copy of the encroachment permit issued by the affected agency for any activities on a public road.

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

TRANS-6 Transportation of Hazardous Materials

The project owner shall contract with licensed hazardous material delivery and waste hauler companies in order to obtain the necessary permits and/or licenses from the California Highway Patrol, the California Department of Transportation (Caltrans), Nevada Department of Transportation, and any relevant local jurisdictions for the transportation of hazardous materials. The project owner shall ensure compliance with all

applicable regulations and implementation of the proper procedures and the deliveries shall only use State Route 160 to the project site.

Verification: In the Monthly Compliance Reports (MCRs) during construction and the Annual Reports during operation, the owner shall provide copies of all permits/licenses obtained for the transportation of hazardous substances.

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

TRANS-7 Federal Aviation Administration Notification of Construction Cranes and Obstruction Marking and Lighting

The project owner shall install obstruction marking and lighting on the two solar power towers and any construction cranes exceeding ~~200~~ 820 feet in height consistent with FAA requirements, as expressed in the following documents:

- FAA Advisory Circular 70/7460-1K
- FAA Safety Alert for Operators (SAFO) 09007

Permanent lighting consistent with all requirements shall be installed and activated within 5 days of completion of construction and prior to operation of the HHSEGS. Lighting shall be operational 24 hours a day, 7 days a week for the life of project operation. Upgrades to the required lighting configurations, types, location, or duration shall be implemented consistent with any changes to FAA obstruction marking and lighting requirements.

The project owner shall file a Form 7460-1 with the Federal Aviation Administration (FAA) regarding the use of ~~200 feet tall~~ construction cranes exceeding 820 feet.

Verification: At least 60 days prior to the start of construction, the project owner shall submit to the CPM for approval final design plans for the two solar towers that depict the required air traffic obstruction marking and lighting.

Within 5 days of completion of the solar power tower construction and prior to plant operation, the project owner shall install and activate permanent obstruction marking and lighting consistent with FAA requirements and shall inform the CPM in writing within 10 days of installation and activation. The lighting shall be inspected and approved by the CPM (or designated inspector) within 30 days of activation.

At least 90 days prior to ground disturbance, the project owner shall submit a copy of the FAA Determination of No Hazard to Navigable Airspace regarding the construction cranes to the CPM.

TRANS-8 Heliostat Operations Positioning and Monitoring Plan

The project owner shall prepare and implement a Heliostat Operations Positioning and Monitoring Plan (HPMP) that would avoid human health and safety hazards and accomplish the following:

- *Safe orientation as default orientation* – heliostats default to the safe orientation common to the whole field in all cases of malfunctions detected by the heliostat's controller, which ensures protection in most cases of malfunctions;
- *Safe path from any orientation to any other orientation* – when heliostats change their orientation, they choose a "path" which avoids reflected sunrays on all unintended areas (at least the tower and power block, and other designated sensitive areas). Safe path orientation includes normal repositioning operations as well as any contingency repositioning operations (such as during excessive high winds) which may required.
- *Normal operation* - all the sunlight is reflected either on the receiver or the "standby" areas – located near the receiver – so that no other location receives solar radiation.

Verification: At least 90 days prior to commercial operation of any of the two HHSEGS Solar Receiver Steam Generators, the project owner shall submit the Heliostat Positioning and Monitoring Plan to the CPM for review and approval. The project owner shall also submit the plan to the Federal Aviation Administration (FAA) for review and comment and forward any comments received to the CPM. The project owner shall not ~~test or~~ commercially operate the project until the HPMP is approved by the CPM.

Transmission Line Safety & Nuisance

PROPOSED CONDITIONS OF CERTIFICATION

TLSN-1 The project owner shall construct the California portion of the ~~chosen~~ 230-kV ~~or 500-kV~~ transmission line according to the requirements of California Public Utility Commission's GO-95, GO-52, GO-131-D, Title 8, and Group 2, High Voltage Electrical Safety Orders, sections 2700 through 2974 of the California Code of Regulations, GO-128 (in the case of any underground segment), and SCE's EMF-reduction guidelines.

Verification: At least 30 days before starting the construction of the ~~chosen~~ 230-kV line ~~option~~ and related facilities in California, the project owner shall submit to the Compliance Project Manager (CPM) a letter signed by a California registered electrical engineer affirming that the lines will be constructed according to the requirements stated in the condition.

TLSN-2 The project owner shall use a qualified individual to measure the strengths of the electric and magnetic fields from the onsite transmission ~~chosen~~ line in California at the points of maximum intensity along its route. The measurements shall be made after energization according to the American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) standard procedures. These measurements shall be completed no later than six months after the start of operations.

Verification: The project owner shall file copies of the post-energization measurements with the CPM within 60 days after completion of the measurements.

TLSN-3 The project owner shall ensure that all permanent metallic objects within the right-of-way of each of the onsite overhead transmission ~~chosen project~~ line in California are grounded according to industry standards.

Verification: At least 30 days before the lines are energized, the project owner shall transmit to the CPM a letter confirming compliance with this condition.

Transmission System Engineering

PROPOSED 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 for all facilities located in California. 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).

Protocol: 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 on-site 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.

Protocol: 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.

Protocol: 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, 2010, 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:

1. Receipt or delay of major electrical equipment;
2. Testing or energization of major electrical equipment; and
3. 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 on-site 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.

1. The HHSEGS project will be interconnected to the VEA grid via a 220-kV, 795 kcmil per phase, and approximately 10 miles long single circuit (generator- tie line). The proposed HHSEGS switching station would construct with six 230kV breakers, breaker- and- a- half configuration with 3- bays and 4 positions. 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.

2. Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.

3. 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.

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

5. Termination facilities shall comply with applicable VEA ~~SCE~~ interconnection standards.

6. 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,

   b. Executed project owner and California ISO Facility Interconnection Agreement.

Verification: At least 60 days prior to the start of construction of on-site 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 on-site 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,"[17] 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.

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

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:

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

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

Verification: The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one week prior to initial synchronization with the grid. A report of the conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.

TSE-7 The project owner shall be responsible for the inspection of the on-site 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.”

3. 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.

Visual Resources

PROPOSED CONDITIONS OF CERTIFICATION

Surface Treatment of Project Structures and Buildings

VIS-1 The surfaces of the solar towers will retain the natural gray color of the concrete from which they are constructed, with the exception of a ring of white paint that will be applied to the area just below the solar boilers to protect the concrete. However, the~~The~~ project owner shall treat the surfaces of all of the other permanent project structures and buildings located at the power blocks or within the common area and visible to the public such that a) their colors minimize visual intrusion by blending with the landscape or by providing architectural interest; b) their colors and finishes do not create excessive glare; and c) their colors and finishes are consistent with local policies and ordinances. Surface color treatment shall include painting ~~or tinting of power towers,~~ of stacks, dry cooling structures, tanks, heliostat structures and other features in earth tone colors and values to blend in with the surrounding mountains and desert vegetation. Colors shall be chosen from palettes of color available from the manufacturers of the project's equipment that are similar to or consistent with the colors of BLM's Standard Environmental Colors. The colors selected should be ~~and~~ pre-tested in the field to the extent feasible. Any transmission line poles and conductors associated with the project in California shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive. The project owner shall submit for CPM review and approval, a specific surface treatment plan that would satisfy these requirements. The treatment plan shall include:

a.) a description of the overall rationale for the proposed surface treatment, including the selection of the proposed color(s) and finishes, including the photographic results of field testing;

b.) a list of each major project structure, building, tank, pipe, and wall; and fencing, specifying the color(s) and finish proposed for each. Colors must be identified by vendor, name, finish and number; or according to a universal designation system;

c.) one set of 11" x 17" color photo simulations at life size scale of the treatment proposed for use on project structures, including structures treated during manufacture, from representative points of view, Key Observation Points 3 and 5, (Visual Resources Figure 20b and 22b of the Staff Assessment) or color-rendered elevation drawings on 18" x 24" minimum sheet size;

d.) color samples on color card or painted steel;

e.) a specific schedule for completion of the treatment; and

f.) a procedure to ensure proper treatment maintenance for the life of the project.

The project owner shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated in the field, until the project owner receives notification of approval of the treatment plan by the CPM. Subsequent modifications to the treatment plan are prohibited without CPM approval.

Verification: At least 90 days prior to specifying to the vendor the colors and finishes of the first structures or buildings that are surface treated during manufacture, the project owner shall submit the proposed treatment plan to the CPM for review and approval and simultaneously to Inyo County for review and comment. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a plan with the specified revision(s) for review and approval by the CPM before any treatment is applied. Any modifications to the treatment plan must be submitted to the CPM for review and approval.

Prior to the start of commercial operation, the project owner shall notify the CPM that surface treatment of all listed structures and buildings has been completed and are ready for inspection and shall submit one set of electronic color photographs from the same key observation points identified in (c) above.

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

Landscape Improvements, Permanent Fencing and Screening

VIS-2 The project owner shall provide landscaping that that responds to the concerns and preferences of local residents and Inyo County. To achieve this objective, the project owner shall develop a plan for the treatment of the frontage along Tecopa Road/Old Spanish Trail Highway in consultation with Inyo County. In developing this plan, considerations that should be taken into account include ~~reduces the visibility of the power plant structures and is in accordance~~ achieving conformity with local policies and mitigating the project's effects on views from Tecopa Road/Old Spanish Trail Highway and from the area of concentrated development in Charleston View. Trees and other vegetation shall be placed along the facility's southern boundary ~~boundaries~~, in conformance with the Conceptual Landscape Plan, Figures VR-1a, b and c, in ~~the 11-AFC-02~~ AFC Supplement A. ~~In addition, the project owner shall provide screening plantings along the property borders on the west and east. The objective shall be to create landscape screening of sufficient density and height to screen the power plant structures to the greatest feasible extent within the shortest feasible time from adjacent properties~~. In the short strip

along the north side of Tecopa Road/Old Spanish Trail Highway directly north of the most heavily developed portion of Charleston View, consideration should be given to the implementation of the landscape plan indicated in Conceptual Landscape Plan Figure VR-1b with the objective of providing an attractive project border and substantial landscape screening of project facilities in views from the adjacent roadway and nearby areas of Charleston View. In the remaining areas of the project's southern perimeter along Tecopa Road, consideration should be given to adapting the landscape plan indicated in Figure VR-1a and implementing it with the goal of creating a landscape buffer along Tecopa Road. While this landscape border may provide partial screening of views into the project site, it is not intended to provide full screening. Selected plants should be drawn from the plant list the Applicant filed on Conceptual Landscape Plan Figure VR-1c, and shall avoid invasive exotic species as indentified by the USDA[18] and Invasive Species Council of California (ISCC)[19]. ~~Landscape plantings and other elements must meet the requirements of the applicable General Plan and Zoning Regulations of Inyo County and any site development standards associated with those regulations.~~

The landscape plan shall also include the permanent perimeter fencing. All chain link or wind fencing along the Tecopa Road side of the site shall include neutral-colored privacy slats to screen views of the interior. Concertina razor wire or similar security obstacles shall only be installed on the interiors of the fencing and shall not be visible from the exterior.

The project owner shall submit to the CPM for review and approval and simultaneously to Inyo County for review and comment a Landscape Documentation Package whose proper implementation will satisfy these requirements and the requirements of the Water Efficient Landscape Ordinance (WELO). The plan shall include:

a.) a detailed Landscape Design Plan, at a reasonable scale (1"=40' maximum). ~~The plan shall demonstrate how the requirements stated above shall be met.~~ The plan shall provide a detailed installation schedule demonstrating installation of as much of the landscaping as feasible prior to plant operation. ~~as early in the construction process as is feasible in coordination with project construction~~. The Landscape Design Plan shall include a Planting Plan with Plant List (prepared by a qualified landscape architect familiar with local growing conditions) of proposed species, specifying installation sizes, growth rates, expected time to maturity, expected size at five years and at maturity, spacing, number, availability, and a discussion of the suitability of the plants for

[18] NRCS Invasive Species Policy, Invasive Species Executive Order 13112, Invasive and Noxious Weeds, California State Listed Noxious Weeds.

[19] **The California Invasive Species List,** Presented on April 21, 2010 by the California Invasive Species Advisory Committee (CISAC) to the Invasive Species Council of California (ISCC).

the site conditions and mitigation objectives, with the objective of providing the widest possible range of species from which to choose; specifications for groundcover, top-dressing of planting areas and weed abatement measures. Existing vegetation (if any) shall be noted on the Landscape Plan. The Landscape Design Plan shall specify all materials to be used for ~~interior roads, walks, parking areas and hardscape materials (i.e. gravel) to be placed in areas that are not paved or planted, and~~ the ~~exterior~~ fencing ~~or walls.~~ along the Tecopa Road side of the project.

b.) an Irrigation Plan in compliance with the Water Efficient Landscape Ordinance. The plan shall include the following: complete Irrigation Design Plan, specifying system components and locations, and shall include the Water Efficient Landscape Worksheet.

c.) maintenance procedures, including any needed temporary irrigation, and a plan for routine annual or semi-annual debris removal for the life of the project; and

d.) a procedure for monitoring and replacement of unsuccessful plantings for the life of the project.

The plan shall not be implemented until the project owner receives final approval from the CPM.

Verification: The landscape plan shall be submitted to the CPM for review and approval and simultaneously to Inyo County for review and comment at least 90 days prior to installation. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM and simultaneously to Inyo County a revised plan for review and approval by the CPM. The submittal shall include 3 printed sets of full-size plans (not to exceed 24" x 36"), 3 sets of 11" x 17" reductions and a digital copy in PDF format.

Planting must occur during the first optimal planting season following site mobilization. The project owner shall simultaneously notify the CPM ~~and Inyo County~~ within seven days after completing installation of the landscape plan., ~~that the site is ready for inspection. A report to the CPM describing how the completed landscape meets the conditions of VIS-2 shall be submitted in conjunction with the inspection~~.

The project owner shall report landscape maintenance activities, including replacement of dead or dying vegetation, for the previous year of operation in each Annual Compliance Report.

Permanent Exterior Lighting

VIS-3 To the extent feasible, consistent with safety and security considerations, the project owner shall design and install all permanent exterior lighting such that:

a.) lamps and reflectors are not visible from beyond the project site, including any off-site security buffer areas;

b.) lighting does not cause excessive reflected glare;

c.) direct lighting does not illuminate the nighttime sky;

d.) illumination of the project and its immediate vicinity is minimized, and

e.) the plan complies with local policies and ordinances.

The project owner shall submit to the CPM for review and approval and simultaneously to Inyo County for review and comment a lighting mitigation plan that includes the following:

a.) Location and direction of light fixtures shall take the lighting mitigation requirements into account;

b.) Lighting design shall consider setbacks of project features from the site boundary to aid in satisfying the lighting mitigation requirements;

c.) Lighting shall incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated;

d.) Light fixtures that are visible from beyond the project boundary shall have cutoff angles that are sufficient to prevent lamps and reflectors from being visible beyond the project boundary, except where necessary for security;

e.) All lighting shall be of minimum necessary brightness consistent with operational safety and security;

f.) Lights in high illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied and

g.) Statement of conformance with all federal, state and local statutes and regulations related to dark skies or glare, including, but not limited to, the Inyo County General Plan.

Verification: At least 90 days prior to ordering any permanent exterior lighting, the project owner shall contact the CPM to discuss the documentation required in the lighting mitigation plan. At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval and simultaneously to Inyo County for review and comment a lighting mitigation plan. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a revised plan for review and approval by the CPM. The submittal shall include 3 printed sets of full-size plans (not to exceed 24” x 36”), 3 sets of 11” x 17” reductions and a digital copy in PDF format. The project owner shall not order any exterior lighting until receiving CPM approval of the lighting mitigation plan.

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

and notify the CPM that the modifications have been completed and are ready for inspection.

Within 48 hours of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation. The project owner shall notify the CPM within 48 hours after completing implementation of the proposal. A copy of the complaint resolution form report shall be submitted to the CPM within 30 days.

Construction Fencing

VIS-4 Unless permanent fencing and or walls are constructed at the outset of construction, the project owner shall install temporary construction fencing on the project site along Old Spanish Trail Highway in such a way as to screen views of the construction activity and equipment. ~~The construction fencing shall meet the following requirements: chain link fence shall have a neutral-colored privacy screening of at least 75% opacity material applied to the fence to reduce or eliminate views into the project site.~~

Verification: At least 60 days prior to site mobilization, the project owner shall submit to the CPM a Construction Fencing Plan. The construction fencing shall meet the following requirements: chain link fence shall have a neutral-colored privacy screening of at least 75% opacity material applied to the fence to reduce or eliminate views into the project site. The plan shall include the following: written description and photographic images of the proposed construction fencing and privacy screening material.

Construction Lighting

VIS-5 The project owner shall ensure that lighting for construction of the power plant is deployed in a manner that minimizes potential night lighting impacts, as follows:

a.) all lighting shall be of minimum necessary brightness consistent with worker safety and security;

b.) all fixed position lighting shall be shielded or hooded, to the extent feasible given safety and security concerns, and directed downward toward the area to be illuminated to prevent direct illumination of the night sky and direct light trespass (direct light extending outside the boundaries of the power plant site or the site of construction of ancillary facilities, including any security related boundaries); and

c.) ~~screening shall be provided to effectively prevent nighttime construction lighting from shining toward~~ the fencing with privacy slats along the Tecopa Road side of the project site required by VIS-2 will be installed early in the site construction process to reduce the visibility of the construction lighting in views from Charleston View; and

d.) wherever feasible, safe and not needed for security, lighting shall be kept off when not in use.

e.) FAA required security lighting shall be included on all construction structures per regulations.

Verification: Within seven days after the first use of construction lighting, the project owner shall notify and the CPM that the lighting is ready for inspection. If the CPM requires modifications to the lighting, within 15 days of receiving that notification the project owner shall implement the necessary modifications and notify the CPM that the modifications have been completed.

Within 48 hours of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the General Conditions section including a proposal to resolve the complaint, and a schedule for implementation. The project owner shall notify the CPM within 48 hours after completing implementation of the proposal. A copy of the complaint resolution form report shall be included in the subsequent Monthly Compliance Report following complaint resolution.

Scenic Resources Interpretative Area

VIS-6 The project owner shall provide an Interpretive Area in the project vicinity. ~~with parking and interpretive panels highlighting the views of wilderness areas and landforms in the project vicinity. A detailed plan shall be developed and shall include visitor interpretation of visual resource highlights which have been adversely impacted by the introduction of the project.~~

Verification: A conceptual plan for the Scenic Resources Interpretative Area located within the project vicinity in Inyo County shall be submitted to the CPM for review and approval within 180 days of receipt of a license to construct and operate HHSEGS. Following CPM approval of the conceptual plan, detailed plans for the interpretive area shall be submitted to the CPM for review and approval, and to Inyo County for review and comment 90 days prior to completion of the HHSEGS project. Plan details shall include:

a.) Site plan clearly indicating primary project components and location;

b.) Landscape plan, including visitor area surface treatments

c.) Irrigation plan, if applicable;

d.) Parking area plan, if applicable, indicating lighting (if any), parking striping, ingress and egress;

e.) Material finishes and details for all components;

f.) Design plans for interpretive panels and displays, which take into consideration the following visual resource aspects:

- Identification of the wilderness and national recreation areas and the major landscape features in the vicinity of the project site (i.e. wilderness areas,

mountain ranges, named peaks and other landforms, including, at a minimum, Mount Charleston and the Spring Mountains, Nopah Peak and the Nopah Wilderness Area, Emigrant Pass, the South Nopah Wilderness Area and Pahrump Dry Lake). In addition to a description of the formation of these landforms and their geologic history, information shall include a discussion of the significance of these features from a Native American perspective and as landmarks and waypoints relative to the Old Spanish Trail - Mormon Road.

- Introduction to the solar electric technology in use at HHSEGS site.
- Pointers to the interpretive resources provided for in CUL-10.

g.) The plan shall include a maintenance plan and schedule for the duration of the project.

If the Scenic Resources Interpretive Area is located within the project boundaries, a-b-c-d-e-f above may be incorporated into the landscape plans required in **VIS-2** and lighting plans required in **VIS-3**.

The Scenic Resources Interpretive Area shall be installed within 90 days of completion of the HHSEGS or in conjunction with landscape and lighting as required by **VIS-2** and **VIS-3** if located on the project site. The project owner shall simultaneously notify the CPM and Inyo County within seven days after completing installation of the interpretive area plan that the site is ready for inspection. A report to the CPM describing how the completed interpretative area meets the conditions of **VIS-6** shall be submitted in conjunction with the inspection.

The project owner shall report maintenance activities for the previous year of operation in each Annual Compliance Report.

Charleston View Tree Plantings

VIS-7 The project owner shall make provisions to plant trees on the properties of any Charleston View resident or property owner who indicate an interest in having them. The intent is to plant the trees in locations that will screen views looking toward the solar power towers from the residences on the property and from the property's primary outdoor living areas. This shall be available to the residents and property owners (so long as the property is used as a residence) for the ~~life of the project~~ first 2 years of project operation. The project owner shall meet the following requirements:

a). The project owner shall employ a professional arborist to identify a list of species that are well adapted to the local conditions and which have characteristics that provide effective screening of views. Selected plants shall avoid invasive exotic species as indentified by the USDA and Invasive Species Council of California (ISCC). (See **VIS-2**)

b). ~~The arborist shall work with residents to select up to eight trees from this list of species and will assist the residents in indentifying appropriate locations for their installation. The project owner will take responsibility for purchasing and installing the trees, which shall be the equivalent of a 15-gallon standard nursery size.~~ The project owner

shall provide any property owner of Charleston View residing in an existing approved residence who is interested in participating in this program with a credit to a local landscape contractor contracted to implement this program. The contractor shall work with residents to select up to eight trees from this list of species provided by the arborist and will assist the residents in identifying appropriate locations for their installation. The contractor will provide the trees and will plant them for the property owner. The trees planted shall be the equivalent of a 15-gallon standard nursery size. The property owner will be responsible for making the provisions for tree irrigation.

c.) Tree planting is a one-time opportunity for property owners in Charleston View. Once installed, irrigation and maintenance of the trees will be the responsibility of the property owner. Trees that do not survive transplantation within 60 days shall be replaced by the project owner at no charge to the property owner. After the 60-day period ends, the project owner shall have no further responsibility for maintenance of the trees.

Verification: Within 120 days after project operations begin~~of beginning construction~~, the project owner shall contact property owners in Charleston View and the CPM by registered mail to notify them of the tree planting program. The project owner shall provide in the Monthly Compliance Report a summary of the program, including the following:

a.) parcel numbers of property owners contacted;

b.) actions taken to ensure property owners fully understand the program;

c.) list of installations by parcel number;

d.) quantity and species installed on each parcel;

e.) documentation of any property owner who declined to participate by parcel number.

Waste Management

PROPOSED CONDITIONS OF CERTIFICATION

WASTE-1 The project owner shall provide the resume of an experienced and qualified professional engineer or professional geologist, who shall be available for consultation during site characterization (if needed), excavation, and grading activities, to the CPM for review and approval. The resume shall show experience in remedial investigation and feasibility studies.

The professional engineer or professional geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil, and to determine appropriate actions to be taken.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit the resume to the CPM for review and approval.

WASTE-2 The project owner shall prepare a Construction Waste Management Plan for all wastes generated during construction of the facility, and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following:

- a description of all construction waste streams, including projections of frequency, amounts generated, and hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans;
- a method for collecting weigh tickets or other methods for verifying the volume of transported and or location of waste disposal; and,
- a method for reporting to demonstrate project compliance with construction waste diversion requirements of 50 percent pursuant to the CalGreen Code and Construction and Demolition Ordinance Inyo County Code, Title 7, Chapter 7.11.

Verification: The project owner shall submit the Construction Waste Management Plan to Inyo County for review and the CPM for review and approval no less than 30 days prior to the initiation of construction activities at the site.

The project owner shall also document in each monthly compliance report (MCR) the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Construction Waste

Management Plan; and update the Construction Waste Management Plan, as necessary, to address current waste generation and management practices.

WASTE-3 The project owner shall obtain a hazardous waste generator identification number from the United States Environmental Protection Agency prior to generating any hazardous waste during construction and operations.

Verification: The project owner shall keep a copy of the identification number on file at the project site and provide documentation of the hazardous waste generation and notification and receipt of the number to the CPM in the next scheduled MCR after receipt of the number. Submittal of the notification and issued number documentation to the CPM is only needed once unless there is a change in ownership, operation, waste generation, or waste characteristics that requires a new notification to USEPA. Documentation of any new or revised hazardous waste generation notifications or changes in identification number shall be provided to the CPM in the next scheduled compliance report.

WASTE-4 The project owner shall prepare an Operation Waste Management Plan for all wastes generated during operation of the facility and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following:

- a detailed description of all operation and maintenance waste streams, including projections of amounts to be generated, frequency of generation, and waste hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans;
- information and summary records of conversations with the local Certified Unified Program Agency and the Department of Toxic Substances Control regarding any waste management requirements necessary for project activities. Copies of all required waste management permits, notices, and/or authorizations shall be included in the plan and updated as necessary;
- a detailed description of how facility wastes will be managed and any contingency plans to be employed in the event of an unplanned closure or planned temporary facility closure; a detailed description of how facility wastes will be managed and disposed of upon closure of the facility; and,
- an explanation to the CPM and Inyo County demonstrating how they will divert operation material to the maximum extent feasible.

Verification: The project owner shall submit the Operation Waste Management Plan to the CPM for approval no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.

The project owner shall also document in each annual compliance report (ACR) the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan, as necessary, to address current waste generation and management practices.

WASTE-5 The project owner shall ensure that all spills or releases of hazardous substances, hazardous materials, or hazardous waste are documented and cleaned up and that wastes generated from the release/spill are properly managed and disposed of in accordance with all applicable federal, state, and local requirements. The project owner shall document management of all unauthorized releases and spills of hazardous substances, hazardous materials, or hazardous wastes that are in excess of EPA's reportable quantities (RQ), that occur on the project property or related linear facilities during construction and on the property during operation. The documentation shall include, at a minimum, the following information:

- location of release;
- date and time of release;
- reason for release; volume released;
- how release was managed and material cleaned up;
- amount of contaminated soil and/or cleanup wastes generated;
- if the release was reported;
- to whom the release was reported;
- release corrective action and cleanup requirements placed by regulating agencies;
- level of cleanup achieved; actions taken to prevent a similar release or spill; and,
- disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release.

Verification: A copy of the unauthorized release/spill documentation shall be provided to the CPM within 30 days of the date the release was discovered.

WASTE-6 Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority related to the HHSEGS, 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 way project-related wastes are managed.

Water Supply

PROPOSED CONDITIONS OF CERTIFICATION

WATER USE OFFSET PLAN

WATER SUPPLY-1 Condition language not agreed upon by staff and applicant.

CONSTRUCTION AND OPERATIONS WATER USE

WATER SUPPLY-2 The proposed project's use of groundwater for all construction activities shall not exceed an average rate of 288 acre-feet per year of construction. The proposed project's use of groundwater for all operations and domestic use activities shall not exceed 140 acre-feet per year.

Prior to the use of groundwater for construction, the project owner shall install and maintain metering devices as part of the water supply and distribution system to document project water use and to monitor and record in gallons per month the total volume(s) of water supplied to the project from this water source. The metering devices shall be of an adequate design for the intended use and shall be operational for the life of the project. Metering devices shall be calibrated and maintained in accordance with the manufacturers recommended procedures and schedule.

Verification: Beginning six (6) months after the start of construction, the project owner shall prepare a semi-annual summary report of the amount of water used for construction purposes. The summary shall include the monthly water usage in gallons. The report shall also include photographs and documentation showing the type of meter and installed condition.

The project owner shall prepare an annual summary report, which will include daily usage, monthly range and monthly average of daily water usage in gallons per day, and total water used on a monthly and annual basis in acre-feet by source. For years subsequent to the initial year of operation, the annual summary report will also include the yearly range and yearly average water use by source. For calculating the total water use, the term "year" will correspond to the date established for the annual compliance report submittal. The report shall also include reports on meter calibration and maintenance, and document it is in working order.

PROJECT GROUNDWATER WELLS

WATER SUPPLY-3 PRE-WELL INSTALLATION The project owner proposes to construct and operate six groundwater production wells onsite that will produce water from the Pahrump Valley basin. The project owner shall ensure that each well is completed in accordance with all applicable state and local water well construction permits and requirements, including Inyo County code Chapter 14.28 Water Wells. Prior to initiation of well

construction activities, the project owner shall submit for review and comment a well construction packet to the Inyo County Environmental Services and fees normally required for county well permits, with copies to the CPM. The Project shall not construct a well or extract and use groundwater without CPM approval to construct and operate the well.

POST-WELL INSTALLATION. The project owner shall provide documentation to the county with copies to the CPM that the well has been properly completed. In accordance with California's Water Code section 13754, the driller of the well shall submit to the DWR a Well Completion Report for each well installed. The project owner shall ensure the Well Completion reports are submitted. The project owner shall ensure compliance with all county water well standards and requirements for the life of the wells and shall provide the CPM with two (2) copies each of all monitoring or other reports required for compliance with the Inyo County Environmental Health Services water well standards and operation requirements, as well as any changes made to the operation of the well.

DESTRUCTION OF WELLS. On property controlled by the project owner the project owner shall protect groundwater resources by abandoning all groundwater wells that will not be used for project purposes. These groundwater wells shall be abandoned in accordance with all applicable state and local water well abandonment requirements, including the California Department of Water Resources Bulletins 74-81 & 74-90. Prior to the start of well construction activities, the project owner shall submit for review and comment a well abandonment packet to Inyo County, in accordance with the Inyo County Code Title 14, Chapter 14.28, containing the documentation, plans, and fees normally required for the county's well abandonment permit, with copies to the CPM for review and approval.

Verification: The project owner shall do all of the following:

1. No later than sixty (60) days prior to the construction of the onsite groundwater production wells, the project owner shall submit to the CPM a copy of the water well construction packet submitted to the Inyo County Environmental Health Services for review and comment.
2. No later than thirty (30) days prior to the construction of the onsite groundwater production wells, the project owner shall submit a copy of written concurrence received from the Inyo County Environmental Health Department that the proposed well construction activities comply with all county well requirements and meet the requirements established by the county's water well permit program for review and comment
3. No later than sixty (60) days after installation of each well at the project site, the project owner shall ensure that the well driller submits a Well Completion Report to the DWR with a copy provided to the CPM. The project owner shall submit to the CPM, together with the Well Completion Report, a copy of well drilling logs, water quality analyses, and any inspection reports.

4. During well construction and for the operational life of the well, the project owner shall submit two (2) copies each to the CPM of any proposed well construction or operation permit changes and shall submit copies within ten (10) days of submittal to or receipt from the Inyo County Environmental Health Services for review and comment and to the CPM for review and approval.
5. No later than fifteen (15) days after completion of the onsite groundwater production wells, the project owner shall submit documentation to the CPM, and the Lahontan RWQCB that well drilling activities were conducted in compliance with Title 23, California Code of Regulations, Chapter 15, Discharges of Hazardous Wastes to Land, (23 CCR, sections 2510 et seq.) requirements and that any onsite drilling sumps used for project drilling activities were removed in compliance with 23 CCR section 2511(c).
6. No later than 180 days after the start of project construction the project owner shall provide a plan showing the results of a site survey to identify abandoned wells and a schedule for completion of abandonment of wells for CPM review and approval. Abandonment shall be conducted in accordance with the approved plan.

WATER LEVEL MONITORING FOR NEIGHBORING WELLS, MITIGATION AND REPORTING

WATER SUPPLY–4: The project owner shall submit a Groundwater Monitoring, Mitigation, and Reporting Plan (GMMRP) to the CPM for review and approval in advance of construction activities and prior to the operation of onsite groundwater supply wells. The GMMRP shall provide detailed methodology for monitoring background, on-site, and off-site groundwater levels and water quality. It shall show how the monitoring program will be effective in evaluating project pumping impacts on domestic well owners. The monitoring period shall include pre-construction, construction, and project operation periods. The plan shall establish pre-construction and project related groundwater level trends and water quality that can be quantitatively compared against predicted trends near the project pumping wells and near potentially impacted resources. The GMMRP shall include all of the following:

Monitoring Well Locations

The project owner will install up to thirteen (13) wells, subject to the ability to gain access and the right to use certain off - site well locations. Unless otherwise noted, all newly constructed monitoring wells shall be installed to a depth that matches the depth of the project pumping wells. The monitoring well locations should be as follows:

- Three wells directly up- gradient (gradient hereafter refers to inferred groundwater potentiometric surface included as part of staff analysis) from the Power Block 1 production well, in a linear array, within the property boundary. Two wells shall be installed within one –half mile of the Power Block 1 production well. The

third well site shall be as close to the property lines as possible (the “Power Block 1 Monitoring Well Array”).

- Two wells directly up-gradient from the Power Block 1 production well (well site not yet identified), between 1.0 and 1.5 miles from the project property boundary at the western edge of the mesquite thicket on BLM land. One well shall monitor water levels at the water table, and the second well shall be installed to a depth that matches the depth of the project pumping wells. ("BLM Mesquite Thicket Monitoring Well 1-Shallow" and "BLM Mesquite Thicket Monitoring Well 1-Deep").
- Three wells directly up- gradient from Power Block 2, in a linear array, within the property boundary. Two wells shall be installed within one half mile of the Power Block 2 production well (well site not yet identified) with the third well being as close to the property lines as possible (the “Power Block 2 Monitoring Well Array”).
- Two wells directly up-gradient from Power Block 2, between 1.0 and 1.5 miles from the project property boundary, at depths corresponding to the water table and the depth of the project pumping wells. (the “BLM Mesquite Thicket Monitoring Well 2-Shallow" and ” BLM Mesquite Thicket Monitoring Well 2-Deep").
- One well at the southern end of the site within the project boundaries (the “Southern Monitoring Well”).
- One well at the northern end of the site within the project boundaries (the “Northern Monitoring Well”).
- One well offsite in California between 2.0 and 3.0 miles from the southwest corner of the site, located between a bearing of southwest (225°) and west (270°) (the “Offsite California Monitoring Well”).

On - Site and Off - Site Monitoring Well Locations

The eight monitoring wells located within the project Site shall be known as the “On-Site Monitoring Wells.” The three monitoring wells located outside the project site (BLM Mesquite Thicket Monitoring Well 1, the BLM Mesquite Thicket Monitoring Well 2 and the Off-site California Monitoring Well) shall be known as the “Off-Site Monitoring Wells.”

The On-Site Monitoring Wells shall be installed and operational at least 3 months prior to the start of pumping at the project supply wells for project construction.

The ability to gain access to and the right to use the Off Site Monitoring Wells is subject to the project owner’s ability to obtain the right to use

these sites for groundwater monitoring purposes. If the right to use one or more of the Off-Site Monitoring Wells is denied or delayed, the Project Owner shall continue to use commercially reasonable efforts to obtain the right to use these sites and propose for CPM review and approval alternative location(s) for Off-Site Monitoring Wells should right to use be denied. During the time when the Project Owner is pursuing the right to use sites for the Off-Site Monitoring Wells, the Project Owner shall nevertheless be allowed to proceed with the GMMRP and construction of the Project.

Background wells shall be the existing wells beyond the extent of project pumping either on-site or off-site that the project owner is able to access and monitor before commencement of project construction and during subsequent project construction and operation. As authorized access allows, measure groundwater levels from the Off-Site Monitoring and On-Site Monitoring Wells within the network and Background Wells to provide initial groundwater levels for contouring and pre-project trend analysis. Assess the apparent trend and delineate project induced drawdown using the ~~Drawdown~~ Distance Drawdown Method described below.

Distance Drawdown Methodology

Drawdown will be evaluated using the "Distance Drawdown Plot Method" applied to filtered water levels, which are measured water levels from monitoring and background wells adjusted to remove identifiable effects of:

- Regional long-term water level trends
- Seasonal water-level fluctuations related to nearby irrigation pumping
- Groundwater recharge events during wet years
- Drawdown from any new non-project production wells installed near the monitoring network.

These confounding influences on water levels may be removed by linear regression, filtering of periodic stresses (such as by using the method described in USGS Scientific Investigations Report 2006-5024), or other appropriate statistical method consistent with hydrogeologic principles and approved by the CPM. While the filtering process is expected to remove many sources of water level variation in the aquifer, it will not account for extraneous factors for which we do not have reliable data. Therefore, the drawdown that remains after the filtering process cannot be definitively assigned to project related pumping unless it's timing and spatial pattern follow the established hydraulic laws that govern the shape of a cone of depression in an aquifer. Specifically, drawdown from project pumping should decrease with distance from the pumping wells and increase with time at any location. Furthermore, when drawdown is plotted on a semi-logarithmic distance-drawdown plot, the points should approximate a line and the transmissivity calculated from the slope of the line should be

representative of the pumped aquifer. ~~similar to transmissivity values defined by initial pumping tests~~.

If project-related drawdown identified by the above filtering procedure exceeds specified thresholds mitigation will be implemented, as described in Section B (below). If the drawdowns measured in either the Power Block 1 Monitoring Well Array or the Power Block 2 Monitoring Well Array in the aquifer cannot be attributed to the project using the foregoing methodology, they may be associated with other causes and ~~if the causes can be identified~~ the applicant will not be required to institute the mitigation measures.

A. Prior to Project Construction

The project owner shall:

1. Conduct a well reconnaissance review to investigate and document the condition of existing water supply wells located within 3 miles of the project site, provided that access is granted by the well owners. The reconnaissance shall include mailing notices to all property owners within 3 miles of the project site requesting information about wells and informing the owners of the eligibility requirements for mitigation of any future drawdown impacts caused by the project, as described in Section C, below. The review shall identify the owner of each well, and shall include the location, depth, screened interval, pump depth, static water level, pumping water level, and capacity of each well to the extent such information is reasonably available or can be measured.
2. As access allows, measure groundwater levels from the off-site and on-site wells within the network and background wells to provide initial groundwater levels for contouring and pre- project trend analysis.
3. Construct updated water level maps within the Pahrump Valley basin, within 5 miles of the site from the groundwater data collected prior to construction. Update trend plots and statistical analyses, as data are available. Consider and incorporate where appropriate water level data from other regional monitoring efforts such as Nye County and BLM.
4. Commence water quality monitoring to establish pre-construction groundwater quality conditions in the monitored wells. All on-site and off-site monitoring wells shall be sampled at least quarterly for the following constituents: TDS, chloride, nitrates, major cations and anions, oxygen-18 and deuterium isotopes
5. Minor construction activities that do not require pumping from the main project supply wells may proceed before the on-site monitoring wells have been installed. However, all of the on-site monitoring wells

shall be installed and operational within 3 months of the start of construction pumping from the project supply wells.

6. Within 3 months of the start of pumping from the project supply wells, all baseline groundwater quality monitoring data shall be reported to the CPM. The report shall include the following:

    a. An assessment of pre-project groundwater quality with groundwater samples analyzed for TDS, chloride, nitrates, major cations and anions, oxygen-18 and deuterium isotopes. The data shall be tabulated, summarized, and submitted to the CPM. The data summary shall include the range (minimum and maximum values), average, and median for each constituent analyzed. The report to the CPM shall assess the utility of these constituents for future monitoring. Any recommendations to add or remove constituents shall be supported with the data and other relevant factual evidence.

    b. The CPM shall finalize the required list of constituents to be analyzed based the review of two years of water quality monitoring results. The CPM may modify the frequency of sampling required depending on the trends demonstrated by the monitoring results.

B. Groundwater Monitoring and Protection of Groundwater Dependent Vegetation during Construction and Operation

The project owner shall:

1. Collect water levels from wells within the monitoring network on a twice daily basis (based on-site and well access) throughout the project construction and operation periods. Delineate project induced drawdown using the data filtering and distance-drawdown plotting procedures (see "Distance Drawdown Methodology" above).

2. If water levels in either of the Power Block 1 or Power Block 2 Onsite Monitoring Wells indicate project-related drawdown of one half (0.5) foot or greater at the northeastern property boundary measured using the Distance Drawdown Methodology, the project owner shall examine the result of groundwater dependent vegetation monitoring as required in BIO-23 and submit a report to the Commission summarizing the results of the monitoring and the potential impacts to mesquite. This does not preclude the project owner from starting to monitor when pumping begins.

3. If water levels in either of the Power Block 1 or Power Block 2 Onsite Monitoring Wells identify project-related drawdown one (1.0) foot or greater at the northeastern property boundary, or water levels in either of the deep mesquite thicket monitoring wells indicate one-half (0.5) foot or greater drawdown due to project-related pumping during construction or operation measured using the Distance Drawdown

Methodology, the project owner shall initiate groundwater mitigation to reduce project related drawdown to less than one (1.0) foot at the northeastern property line and less than 0.5 foot in the deep mesquite thicket monitoring wells and maintain it below those levels for the life of the project. Subject to CPM approval and consistent with BIO-23, ~~M~~mitigation measures may include, but are not limited to:

- Relocating the pumping wells to the western portion of the site to increase the separation of the wells from the site's northeastern boundary and allow water levels to recover in areas northeast of the site;
- Groundwater recharge to replace all or a portion of the project pumping and restore groundwater levels along the northeastern site boundary;
- Purchase and retire additional actual groundwater consumptive use at a nearby location in the basin.
- Seek project water from other sources that may then be available.
- Decrease project pumping.

4. During project construction, the project owner shall quarterly monitor the quality of groundwater and changes in groundwater quality in the monitoring network and submit data semiannually to the CPM. The summary report shall document water quality monitoring methods, the water quality data, water quality plots, and a comparison between pre-and post-construction water quality trends as itemized below. The report shall also include a summary of actual water use conditions. The report shall be provided to CPM 60 days following completion of each semi-annual monitoring period.

    a. Groundwater samples from all wells in the monitoring well network shall be analyzed and reported semiannually for the following constituent list: TDS, chloride, nitrates, major cations and anions, oxygen 18 and deuterium isotopes.

    b. The compliance data shall be analyzed for both trends and for contrast with the pre- project data. For analysis purposes, preproject water quality shall be defined by samples collected prior to project construction as specified above, and compliance data shall be defined by samples collected after the construction start date.

5. During the first year of project operation, the project owner shall monitor the quality of groundwater and changes in groundwater quality in the monitoring network and submit data semiannually to the CPM. Sampling will be on a quarterly basis.

6. After the first year of project operation, the project owner shall quarterly monitor the quality of groundwater and changes in groundwater quality in the monitoring network and submit data semiannually to the CPM. The summary report shall document water quality monitoring methods, the water quality data, water quality plots, and a comparison between pre-and post-construction water quality trends as itemized below. The report shall also include a summary of actual water use conditions.
    a. Groundwater samples from all wells in the monitoring well network shall be analyzed and reported semiannually for the constituent list approved by the CPM.
    b. The compliance data shall be analyzed for both trends and for contrast with the pre-project data. For analysis purposes, pre-project water quality shall be defined by samples collected prior to project construction as specified above, and compliance data shall be defined by samples collected after the construction start date.
7. Groundwater quality data shall be used to ensure the project owner complies with the requirements of WATER SUPPLY 7. If the water quality data show that project pumping is causing a decline in water quality that could lead to exceedance of the allowable Water Quality Objectives for beneficial uses of the PVGB the project owner shall prepare an engineering report consistent with the RWQCB requirements for protection of beneficial uses (See also SOILS-9, Septic System).

C. Protection for Neighboring Wells

If the monitoring well system put in place pursuant to this Condition demonstrates that water levels in neighboring wells have been lowered as a result of project-related drawdown 10 feet or more (under static-non-pumping conditions), the project owner shall provide CPM with evidence that the project owner has offered to compensate private well owners for the increased energy cost associated with pumping groundwater as a direct result of a drop in water levels associated with the project groundwater use. In the absence of specific electrical use data supplied by the well owner, the project owner shall use **WATER SUPPLY-5** to calculate increased energy costs. Payment or reimbursement for the increased costs shall be provided at the option of the affected well owner on an annual or one-time lump sum basis.

If Project pumping has lowered water levels in existing neighboring wells and substantially impacts well yield so that it can no longer meet its intended purpose, causes the well to go dry, or causes casing collapse, an assessment of remedial options will be conducted by project owner, followed by payment or reimbursement of an amount equal to the cost of cleaning or rehabilitating the well to restore its capacity, lowering the pump ~~(as in item (e) below)~~, deepening the well, or replacing the well (as

cooperatively determined as the appropriate resolution) shall be provided to accommodate these effects. Payment or reimbursement shall be at an amount equal to the customary local cost of deepening the existing well or constructing a new well of comparable design and yield (only deeper). If water levels decline due to multiple causes, payment or reimbursement shall be in proportion to the project's share of the total water-level decline. The demand for water, which determines the required well yield, shall be determined on a per well basis using well owner interviews and field verification of property conditions and water requirements compiled as part of the pre-project well reconnaissance. Well yield shall be considered substantially impacted if it is incapable of meeting 110% of the well owner's maximum daily demand, dry-season demand, or annual demand – assuming the pre-project well yield documented by the initial well reconnaissance met or exceeded these yield levels. To be eligible for the well protection guarantee program, the well owner must inform the project owner during the pre-project reconnaissance survey (see Section A.1) of the location of the well, provide such well construction data as may be known, and authorize the project owner to inspect the well, document relevant factors such as the well depth, depth to static water level, pumping rate, and pumping water level, and allow the project owner access to the well to verify the conditions of any claims, and identify where pump or screen are susceptible to impact from project related water level drawdown.

Pump lowering – In the event that static water levels ~~groundwater~~ are ~~is~~ lowered as a result of project-related drawdown ~~pumping~~ to an extent where pumps are exposed but well screens remain submerged under ~~static non-~~pumping conditions, the pumps shall be lowered to maintain production in the well. The Project shall pay, or reimburse within 30 days, the impacted well owner for the costs associated with lowering pumps.

Deepening of wells – If the static water levels ~~groundwater is~~ are lowered enough as a result of project-related drawdown to an extent ~~pumping~~ that well screens and/or pump intakes are exposed under ~~static-non-~~pumping conditions, and pump lowering is not an option, such affected wells shall be deepened or new wells constructed. The project owner shall pay, or reimburse within thirty days, the impacted well owner for all reasonable costs associated with deepening existing wells or constructing new wells shall be borne by the project owner.

After the first five-year operational and monitoring period the CPM shall evaluate the data and determine if ~~the~~ monitoring program elements for water level measurements and groundwater quality should be revised ~~or eliminated~~. Revision ~~or elimination~~ of any monitoring program elements shall be based on the consistency of the data collected. The determination of whether the monitoring program should be revised ~~or eliminated~~ shall be made by the CPM.

Verification:

1. The project owner shall submit a Groundwater Monitoring, Mitigation, and Reporting Plan (GMMRP) to the CPM for review and approval prior to the start of construction activities and at least 4 months prior to the operation of onsite groundwater supply wells for construction. The GMMRP shall provide detailed methodology for monitoring background, on-site, and off-site groundwater levels and water quality. The monitoring period shall include pre-construction, construction, and project operation periods.
2. Pre-Project Groundwater Baseline report. Prior to operation of onsite groundwater supply wells, the project owner shall submit a report to the CPM containing all of the information gathered during the pre-project monitoring period, as specified in Section A (well reconnaissance, groundwater levels and groundwater quality).
3. Semiannual Monitoring Data reports. During project construction and operation, the project owner shall submit semiannual data reports to the CPM containing water level and water quality data as described in sections B.3 and B.6~~5~~.a.
4. Semiannual Data Analysis reports. During project construction and operation, the project owner shall submit a semiannual operations and data analysis report to the CPM. The semiannual report for the each half of each calendar year may be incorporated into the report, which is due by August 15 and February 15 of each year. Data and analysis in the annual report shall include:
    a. Project operational parameters, including daily production at the water supply wells and monthly on-site wastewater generation and disposal.
    b. Annual groundwater use in the southern Pahrump Valley, estimated based on available data.
    c. Hydrographs of groundwater levels at monitoring wells, showing raw and "filtered" water levels separately.
    d. Documentation and justification of water-level filtering procedures.
    e. Contour maps of raw and filtered groundwater levels and estimated drawdown caused by the project (based on filtered water levels).
    f. Statistical trend analysis of water level data and compare to predicted water level declines due to project pumping.
    g. Statistical analysis of groundwater quality data, including trend analysis and comparison of current and pre-project water quality.
    h. Documentation of any mitigation measures implemented to protect groundwater dependent vegetation (see Section B.2).
    i. Documentation of any mitigation measures implemented as a result of impacts on neighboring wells (see Section C).

j. Documentation of any complaints received by the project owners and the resolution of those complaints, including compensation to impacted well owners.

k. Copies of any hydrological or groundwater reports prepared by the project owner or project consultants.

5. Consistent with state law, a copy of the data collected pursuant to this condition will be provided to Inyo County.

6. In the Annual Compliance Report during construction and operation, the project owner shall provide the CPM documentation showing with respect to any claim against the well protection guarantee program either (a) that any mitigation to private well owners has been satisfied through proof of payment or reimbursement; or (b) that the project owner has attempted to contact the well owner via certified letter related to the well protection guarantee program.

GROUNDWATER PUMPING COST CALCULATION

WATER SUPPLY-5 Where it is determined that the project owner shall reimburse a private well owner for increased energy costs identified as a result of analysis performed in Condition of Certification **WATER SUPPLY-4,** the project owner shall calculate the compensation owed to any owner of an impacted well as described below.

Increased cost for energy =	change in lift/total system head x total energy consumption x costs/unit of energy

Where:

change in lift (ft) =	calculated change in water level in the well resulting from project
total system head (ft) =	elevation head + discharge pressure head
elevation head (ft) =	difference in elevation between wellhead discharge pressure gauge and water level in well during pumping.
discharge pressure head (ft) =	pressure at wellhead discharge gauge (psi) X 2.31

The project owner shall submit to the CPM for review and approval the documentation showing which well owners must be compensated for increased energy costs and that the proposed amount is sufficient compensation to comply with the provisions of this condition.

A. Any reimbursements (either lump sum or annual) to impacted well owners shall be only to those well owners whose wells were in service within six months of the Commission decision and within a 5-mile radius of the project site.

B. The project owner shall notify all owners of the impacted wells within one month of the CPM approval of the compensation analysis for increase energy costs.

C. Compensation shall be provided on either a one-time lump-sum basis, or on an annual basis, as described below.

Annual Compensation: Compensation provided on an annual basis shall be calculated prospectively for each year by estimating energy costs that will be incurred to provide the additional lift required as a result of the project. With the permission of the impacted well owner, the project owner shall provide energy meters for each well or well field affected by the project. The impacted well owner to receive compensation must provide documentation of energy consumption in the form of meter readings or other verification of fuel consumption. For each year after the first year of operation, the project owner shall include an adjustment for any deviations between projected and actual energy costs for the previous calendar year.

One-Time Lump-Sum Compensation: Compensation provided on a one-time lump-sum basis shall be based on a well-interference analysis, assuming the maximum project-pumping rate of 163 acre-feet per year. Compensation associated with increased pumping lift for the life of the project shall be estimated as a lump sum payment as follows:

A. The current cost of energy to the affected party considering time of use or tiers of energy cost applicable to the party's billing of electricity from the utility providing electric service, or a reasonable equivalent if the party independently generates their electricity;

B. An annual inflation factor for energy cost of 3 percent; and

C. A net present value determination assuming a term of 30 years and a discount rate of 9 percent;

Verification: The project owner shall do all of the following:

1. No later than 30 days after CPM approval of the well drawdown analysis, the project owner shall submit to the CPM for review and approval all documentation and calculations describing necessary compensation for energy costs associated with additional lift requirements.
2. The project owner shall submit to the CPM all calculations, along with any letters signed by the well owners indicating agreement with the calculations, and the name and phone numbers of those well owners that do not agree with the calculations. Compensation payments shall be made by March 31 of each year of project operation or, if lump-sum payment is selected, payment shall be made by March 31 of the first year of operation only. Within 30 days after compensation is paid, the project owner shall submit to the CPM a compliance report describing compensation for increased energy costs necessary to comply with the provisions of this condition.

GROUND SUBSIDENCE MONITORING AND ACTION PLAN

WATER SUPPLY–6 One monument monitoring station per production well or a minimum of three stations shall be constructed to measure potential inelastic subsidence that may alter surface characteristics of the PVGB and affect structures near the proposed production wells. The project owner shall:

A. Prepare and submit a Subsidence Monitoring Plan (SMP), including all calculations and assumptions. The plan shall include the following elements:

1. Construction diagrams of the proposed monument monitoring stations including size and description, planned depth, measuring points, and protection measures;
2. Map depicting locations (minimum of three) of the planned monument monitoring stations;
3. Monitoring program that includes monitoring frequency, thresholds of significance, reporting format.

B. Prepare annual reports commencing three (3) months following commencement of groundwater production during construction and operations.

1. The reports shall include presentation and interpretation of the data collected including comparison to the thresholds developed in Item C.

C. Prepare a Mitigation Action Plan that details the following:

1. Thresholds of significance for implementation of proposed action plan based on monitoring station data;
   a. Subsidence shall not be allowed to damage existing structures either on or off the site or alter the appearance or use of the structure;
   b. Any subsidence that may occur shall not be allowed to alter natural drainage patterns or permit the formation of playas or lakes;
   ~~c. If any subsidence violates (a) or (b) the project owner shall investigate the need to immediately modify or cease pumping for project operations until the cause is interpreted and subsidence caused by project pumping abates and the structures and/or drainage patterns are stabilized and corrected.~~
2. The project owner shall prepare an Action Plan that details proposed actions by the applicant in the event thresholds are achieved during the monitoring program

The project owner shall submit the Ground Subsidence Monitoring and Action Plan that is prepared by an Engineering Geologist registered in the State of California thirty (30) days prior to the start of extraction of groundwater for construction or operation.

Verification: The project owner shall do all of the following:

1. At least thirty (30) days prior to project construction, the project owner shall submit to the CPM a comprehensive report presenting all the data and information required in Item A above.
2. During project construction and operations, the project owner shall submit to the CPM quarterly reports presenting all the data and information required in item B above.
3. The project owner shall submit to the CPM all calculations and assumptions made in development of the report data and interpretations.

After the first five (5) years of the monitoring period, the project owner shall submit a 5-year monitoring report to the CPM that submits all monitoring data collected and provides a summary of the findings. The CPM shall determine if the Ground Subsidence Monitoring and Action Plan frequencies should be revised.

NON-TRANSIENT, NON-COMMUNITY WATER SYSTEM

WATER SUPPLY-7 ~~The project is subject to the requirements of~~ If bottled water is not utilized and the project instead installs a non-transient, non-community water system as defined in California Code of Regulations, Title 22, Article 3, Sections 64400.80 through 64445 (22 CCR § 64400.80 – 64445), ~~for a non-transient, non-community water system (serving 25 people or more for more than six months). T~~ the project owner shall submit ~~water system plans~~ to Inyo County Environmental Health Services an application and applicable filing fees for a permit to operate a non-transient, non-community water system for review and approval of this ministerial (non-discretionary) permit. In addition, the system will require periodic monitoring consistent with **WATER SUPPLY-4**, for various bacteriological, inorganic and organic constituents.

Verification: ~~The project owner shall obtain a permit to operate a non-transient, non-community water system with the Inyo County Environmental Health Services at least sixty (60) days prior to commencement of construction at the site.~~ At least sixty (60) days prior to the installation of a non-transient, non-community water system at the site, the project owner shall submit an application and applicable filing fees for a permit to operate a non-transient, non-community water system to the Inyo County Environmental Health Services, with a copy to the CPM. In addition, the project owner shall submit to the CPM a monitoring and reporting plan for production wells operated as part of the domestic water supply system prior to plant operations. The plan shall include reporting requirements including monthly, quarterly, and annual submissions.

The project owner shall designate a California Certified Water Treatment Plant Operator as well as the technical, managerial, and financial requirements as prescribed by State law. The project owner shall supply the CPM updates on an annual basis regarding monitoring requirements, any submittals to the Inyo County Environmental Health Services, and proof of annual renewal of the operating permit.

Worker Safety and Fire Protection

PROPOSED CONDITIONS OF CERTIFICATION/MITIGATION MEASURES

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

- a Construction Personal Protective Equipment Program;
- a Construction Exposure Monitoring Program;
- a Construction Injury and Illness Prevention Program;
- a Construction Heat Stress Protection Plan that implements and expands on existing Cal OSHA regulations as found in 8 CCR 3395;
- a Construction Emergency Action Plan; and
- a Construction Fire Prevention Plan that includes the above-ground fuel depot.
- an Eyesight Protection from Retinal Damage Plan that is designed to insure that workers in the solar field receive and wear the appropriate protective sunglasses. This Eyesight Protection from Retinal Damage Plan would:

  (1) identify and acquire the appropriate eye protection (EP) equipment based on the IEC 62471 standards in sufficient numbers to provide safety glasses for the workers engaged in solar field work, and tower work where the potential exists for heliostat solar reflective exposure or SRSG exposure during operations,

  (2) establish the requirements and procedures for the donning and doffing of the EP by workers and provide training and,

  (3) monitor worker use of the PPE and compliance with the EP procedures.

- <u>Design requirements documentation for the facility fire suppression systems. The design documentation would include water flow requirements for all occupancies, fire pump flow requirements, fire water supply and distribution requirements, including flow capabilities of the under-ground fire water loop.</u>

The Construction Emergency Action Plan and the Fire Prevention Plan shall be submitted to the Southern Inyo Fire Protection District for review and comment 60 days prior to construction. The Personal Protective Equipment Program, the Exposure Monitoring Program, the Injury and Illness Prevention Program, and the Heat Stress Protection Plan shall be

submitted to the CPM for review and approval of program compliance with all applicable safety orders 30 days prior to construction.

At least 30 days prior to the start of construction, the project owner shall submit to the SIFPD for review and comment, and to the CPM for review and approval a copy of the design requirements documentation for the facility fire suppression systems, and to the CPM for review and approval. The submittal shall include and address any comments received from SIFPD.

At least 30 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a copy of the Project Construction Safety and Health Program.

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

- an Operation Injury and Illness Prevention Plan;
- an Operation Heat Stress Protection Plan that implements and expands on existing Cal OSHA regulations (Cal. Code of Regs., tit. 8,§ 3395);
- a Best Management Practices (BMP) for the storage and application of herbicides;
- an Emergency Action Plan;
- Hazardous Materials Management Program;
- Fire Prevention Plan that includes the fuel depot should the project owner elect to maintain and operate the fuel depot during operations (8 Cal Code Regs. § 3221); and
- Personal Protective Equipment Program (Cal Code Regs.,tit. 8, §§ 3401—3411).
- an Eyesight Protection from Retinal Damage Plan that is designed to insure that workers in the solar field receive and wear the appropriate protective sunglasses. This Eyesight Protection from Retinal Damage Plan would:

  (1) identify and acquire the appropriate eye protection (EP) equipment based on the IEC 62471 standards in sufficient numbers to provide safety glasses for the workers engaged in solar field work, and tower work where the potential exists for heliostat solar reflective exposure or SRSG exposure during operations,

  (2) establish the requirements and procedures for the donning and doffing of the EP by workers and provide training and,

  (3) monitor worker use of the PPE and compliance with the EP procedures.

Verification: The Operations Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the Southern Inyo Fire Protection District for review and comment 60 days prior to the start of operations. The Operation Injury and Illness Prevention Plan, Heat Stress Protection Plan, BMP for Herbicides, and Personal Protective Equipment, and Personal Protective Equipment Program shall be submitted to the CPM for review and approval concerning compliance of the programs with all applicable safety orders 30 days prior to the start of operations.

At least 30 days prior to commercial operation, the project owner shall submit to the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program.

WORKER SAFETY-3 The project owner shall provide a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of power plant construction activities and relevant laws, ordinances, regulations, and standards; is capable of identifying workplace hazards relating to the construction activities; and has authority to take appropriate action to assure compliance and mitigate hazards. The CSS shall:

- have overall authority for coordination and implementation of all occupational safety and health practices, policies, and programs;
- assure that the safety program for the project complies with all Cal/OSHA and federal regulations related to power plant projects;
- assure that all construction and commissioning workers and supervisors receive adequate safety training;
- complete accident and safety-related incident investigations and emergency response reports for injuries and inform the CPM of safety-related incidents; assure that all the plans identified in Conditions of Certification Worker Safety-1 and -2 are implemented; and,
- provide evidence that proper practices and procedures for the protection of employees involved in construction of the solar power tower, solar receiving steam generator, and/or confined and elevated (high angle) “permit spaces” occurs per federal and state standards (including OSHA §1910.146(k) and Cal/OSHA Standards Part 1910) and the equipment manufacturer’s requirements.

Verification: The CSS shall submit in the monthly compliance report)MCR) a monthly safety inspection report to include:

- record of all employees trained for that month (all records shall be kept on site for the duration of project construction);
- summary report of safety management actions and safety-related incidents that occurred during the month;
- report of any continuing or unresolved situations and incidents that may pose danger to life or health; and

- report of accidents and injuries that occurred during the month.

Verification: At least 60 days prior to the start of site mobilization, the project owner shall submit to the CPM the name and contact information for the Construction Safety Supervisor (CSS). The contact information of any replacement CSS shall be submitted to the CPM within one business day after replacement.

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

Verification: At least 60 days prior to the start of construction, the project owner shall provide proof of its agreement to fund the Safety Monitor services to the CPM for review and approval.

WORKER SAFETY-5 The project owner shall ensure that a portable automatic external defibrillator (AED) is located on site during construction and operations and shall implement a program to ensure that workers are properly trained in its use and that the equipment is properly maintained and functioning at all times. During construction and commissioning, the following persons shall be trained in its use and shall be on site whenever the workers that they supervise are on site: the Construction Project Manager or delegate, the Construction Safety Supervisor or delegate, and all shift foremen. During operations, all power plant employees shall be trained in its use. The training program shall be submitted to the CPM for review and approval.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit to the CPM proof that a portable automatic external defibrillator (AED) ~~exists on site~~ has been purchased and will be made available on site once mobilized and a copy of the training and maintenance program for review and approval.

WORKER SAFETY-6 The project owner shall either:

(1) Reach an agreement with the Southern Inyo Fire Protection District (SIFPD) regarding funding of its project-related share of capital and operating costs to improve fire protection/emergency response infrastructure and provide appropriate equipment as mitigation of project-related impacts on fire protection/emergency response services within the jurisdiction no later than 30 after the CEC Final Decision; or

(2) develop and maintain on-site, at all times, a fire brigade consisting of at least 5 qualified fire fighters including 1 Paramedic licensed to practice in

Inyo County, and a fire pumper apparatus. This Fire brigade shall maintain an ISO (Insurance Services Office) rating of 8 or better and type III hazmat Response capability as defined by the U.S. Department of Homeland Security / Federal Emergency Management Agency and certification by the California Emergency Management Agency for Type III Haz – Mat response. A plan for the onsite brigade shall be submitted to the Southern Inyo Fire Protection District (SIFPD) with sufficient time to allow for their review and comment. The fire brigade shall exist for the entire construction period and for first year of operation.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit to the CPM proof of conformity for approval of the fire brigade with the requirements described above and in the annual report every year thereafter. This shall include evidence of the owner's consideration of the SIFPD comments in implementation of the onsite fire brigade.

WORKER SAFETY-7 The project owner shall enter into an agreement with an emergency transport provider to serve the facility throughout the construction period and for the first year of operation.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall provide proof of an agreement with an emergency transport provider to serve the facility.

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

APPLICATION FOR CERTIFICATION FOR THE HIDDEN HILLS SOLAR ELECTRIC GENERATING SYSTEM

Docket No. 11-AFC-02

PROOF OF SERVICE
(Revised 3/25/13)

SERVICE LIST:

APPLICANT
BrightSource Energy
Stephen Wiley
Amanda McCoy
Bradley Brownlow
1999 Harrison Street, Suite 2150
Oakland, CA 94612-3500
swiley@brightsourceenergy.com
amccoy@brightsourceenergy.com
bbrownlow@brightsourceenergy.com

BrightSource Energy
Clay Jensen
Gary Kazio
410 South Rampart Blvd., Suite 390
Las Vegas, NV 89145
cjensen@brightsourceenergy.com
gkazio@brightsourceenergy.com

APPLICANTS' CONSULTANTS
Strachan Consulting, LLC
Susan Strachan
P.O. Box 1049
Davis, CA 95617
susan@strachanconsult.com

CH2MHill
John Carrier
2485 Natomas Park Drive, Suite 600
Sacramento, CA 95833-2987
jcarrier@ch2m.com

APPLICANT'S COUNSEL
Chris Ellison
Jeff Harris
Samantha Pottenger
Ellison, Schneider and Harris, LLP
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816-5905
cte@eslawfirm.com
jdh@eslawfirm.com
sgp@eslawfirm.com

INTERVENORS
Jon William Zellhoefer
P.O. Box 34
Tecopa, CA 92389
jon@zellhoefer.info

Center for Biological Diversity
Lisa T. Belenky, Sr. Attorney
351 California Street, Suite 600
San Francisco, CA 94104
lbelenky@biologicaldiversity.org

Center for Biological Diversity
Ileene Anderson
Public Lands Desert Director
PMB 447
8033 Sunset Boulevard
Los Angeles, CA 90046
ianderson@biologicaldiversity.org

Old Spanish Trail Association
Jack Prichett
857 Nowita Place
Venice, CA 90291
jackprichett@ca.rr.com

INTERVENORS (Cont'd.)
Cindy R. MacDonald
3605 Silver Sand Court
N. Las Vegas, NV 89032
sacredintent@centurylink.net

Richard Arnold
P.O. Box 3411
Pahrump, NV 89041
rwarnold@hotmail.com

Amargosa Conservancy
Donna Lamm, Executive Director
Brian Brown
Watershed Coordinator
Route 127, P.O. Box 63
Shoshone, CA 92384
donnalamm@amargosaconservancy.org
dates@chinaranch.com

County of Inyo
Randy H. Keller, County Counsel
Dana Crom
Deputy County Counsel
244 N. Edwards St., P.O. Box M
Independence, CA 93526
dcrom@inyocounty.us

William D. Ross
Law Offices of William D. Ross
520 South Grand Avenue
Suite 300
Los Angeles, CA 90071-2610
wross@lawross.com

*indicates change

INTERVENORS (Cont'd.)
Southern Inyo Fire Protection District
Larry Levy, Fire Chief
410 Tecopa Hot Springs Road
Tecopa, CA 92389
Levy2717@access4less.net

INTERESTED AGENCIES
California ISO
e-recipient@caiso.com

Great Basin Unified APCD
Duane Ono
Deputy Air Pollution Control Officer
157 Short Street
Bishop, CA 93514
dono@gbuapcd.org

Nye County
Lorinda A. Wichman, Chairman
Board of County Supervisors
P.O. Box 153
Tonopah, NV 89049
lawichman@gmail.com

Nye County Water District
L. Darrel Lacy
Interim General Manager
2101 E. Calvada Boulevard
Suite 100
Pahrump, NV 89048
llacy@co.nye.nv.us

National Park Service
Michael L. Elliott
Cultural Resources Specialist
National Trails Intermountain Region
P.O. Box 728
Santa Fe, NM 87504-0728
Michael_Elliott@nps.gov

Southern Inyo
Fire Protection District
Larry Levy, Fire Chief
P.O. Box 51
Tecopa, CA 92389
sifpd@yahoo.com

ENERGY COMMISSION STAFF
Mike Monasmith
Senior Project Manager
mike.monasmith@energy.ca.gov

Richard Ratliff
Staff Counsel IV
dick.ratliff@energy.ca.gov

Kerry Willis
Staff Counsel
kerry.willis@energy.ca.gov

ENERGY COMMISSION – PUBLIC ADVISER
Blake Roberts
Assistant Public Adviser
publicadviser@energy.ca.gov

COMMISSION DOCKET UNIT
California Energy Commission
– Docket Unit
Attn: Docket No. 11-AFC-02
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.ca.gov

OTHER ENERGY COMMISSION PARTICIPANTS (LISTED FOR CONVENIENCE ONLY):
After docketing, the Docket Unit will provide a copy to the persons listed below. Do not send copies of documents to these persons unless specifically directed to do so.

KAREN DOUGLAS
Commissioner and Presiding Member

DAVID HOCHSCHILD
Commissioner and Associate Member

Ken Celli
Hearing Adviser

Galen Lemei
Adviser to Presiding Member

Jennifer Nelson
Adviser to Presiding Member

Jim Bartridge
Adviser to Associate Member

*Kelly Foley
Adviser to Associate Member

Eileen Allen
Commissioners' Technical Adviser for Facility Siting

DECLARATION OF SERVICE

I, Mary Finn, declare that on March 25, 2013, I served and filed copies of the attached Conditions as Revised by Applicant and Staff, dated March 25, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at: http://www.energy.ca.gov/sitingcases/hiddenhills/.

The document has been sent to the other persons on the Service List above in the following manner:

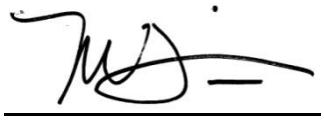
(*Check one*)

For service to all other parties and filing with the Docket Unit at the Energy Commission:

_x_ I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the US mail with first class postage to those parties noted above as "hard copy required"; OR

____ Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.



Dated: 3/25/13

Mary Finn
CH2M HILL