CALIFORNIA ENERGY COMMISSION
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CALPINE KING CITY LM6000 PROJECT
STAFF ASSESSMENT FOR EMERGENCY PERMIT

EXECUTIVE SUMMARY

The Energy Commission staff has performed a fatal flaw analysis of the Calpine King City LM6000 Project and recommends that the project be approved by the Energy Commission with the Conditions of Certification proposed by staff. Staff further recommends that the certification be for the life of the project provided that at the end of the power purchase agreement with either the California Independent System Operator or the California Department of Water Resources the project owner can verify that the project meets certain continuation criteria. These recommendations are based on the Energy Commission staff's independent assessment of the emergency permit application, independent studies and site evaluation, and consultation with agencies that would normally have permitting authority over the project except for the Energy Commission's emergency permitting authority provided by the Emergency Executive Orders of the Governor.

On April 5, 2001, the Calpine Corporation (Calpine) filed an emergency permitting application for the King City LM6000 Project (King City). Calpine submitted supplemental application information on April 11. Calpine's application was deemed complete on April 11, 2001. The application is available in Adobe PDF format at the documents portion of the project website, at http://www.energy.ca.gov/sitingcases/peakers/kingcity.

Calpine proposes to construct a 50 megawatt (MW) natural-gas fired simple-cycle peaking facility located on a 6.7 acre cleared and graded portion of leased property adjacent to Calpine's existing King City Cogeneration facility.

A PDF file showing the regional location of this facility is included as Figure 1 in the files for this staff assessment. The project vicinity map, Figure 2, as well as a site plan for the proposed facility are also available. These files may be downloaded from the project's web site at: http://www.energy.ca.gov/sitingcases/peakers/kingcity/documents.

The proposed facility will require no new linear facilities. The project will interconnnect to Pacific Gas & Electric's (PG&E) electricity transmission system through a radial tie to the existing lines near the northwest corner of the King City facility's leasehold. Natural gas will be provided through an on-site connection to the existing facility's PG&E gas supply.

The project will use raw well water through a connection to the existing facility's water supply system. On-site trailer mounted or skid-mounted water treatment facilities, consisting of reverse-osmosis and demineralization units, will provide demineralized water for turbine injection and cooling. Wastewater will be returned to the existing

facility's wastewater system. The facility will consume approximately 120 gallons/minute (gpm) of water, on peak.

The King City project will incorporate selective catalytic reduction (SCR) to reduce project emissions. NOx emissions, when operating with natural gas, are 5 ppm. Anhydrous ammonia, for use in the facility's SCR unit, will be supplied by the existing facility's ammonia system.

The project is expected to begin commercial operation by September 30, 2001. Project construction will take between two to three months and will begin upon Commission approval of the project. Calpine will obtain an air quality control permit to operate 8,760 hours per year, and could operate 7 days per week, 24 hours per day. The project will sell a portion of its generation under contract to the California Department of Water Resources (DWR). Generation not sold to DWR will be sold on the competitive market. The project is expected to operate for the life of the DWR contract, 20 years, or until the DWR contract is terminated and the facility is unprofitable.

EMERGENCY PERMITTING AUTHORITY

This project is being considered outside of the Energy Commission's normal power plant permitting process. Under Public Resources Code Section 25705, if the legislature or the Governor declares a state of energy emergency, the Commission has emergency authority to order the construction and use of generating facilities under terms and conditions it specifies to protect the public interest. This authority can be invoked only if the Legislature or Governor declares a state of emergency and the Commission determines that all reasonable conservation, allocation, and service restriction measures may not alleviate an energy supply emergency.

Governor Gray Davis declared a state of emergency on January 17, 2001. On February 8 and March 7, 2001, the Governor issued several executive orders and declared that all reasonable conservation, allocation, and service restriction measures may not alleviate an energy supply emergency.

In Executive Order D-26-01, and Executive Order D-28-01 the Governor ordered the Energy Commission to expedite the processing of applications for peaking and renewable power plants that can be on line by September 30, 2001. The Governor also declared that these projects are emergency projects under Public Resources Code section 21080(b)(4), and are thereby exempt from the requirements of the California Environmental Quality Act (CEQA). A summary of the emergency permitting process, including the proposed schedule, and a checklist showing the information required in an application, can be found on the web at: http://www.energy.ca.gov/sitingcases/peakers/documents/index.html.

NEED FOR EMERGENCY PERMITTING

SUPPLY

The electric generation system must have sufficient operating generating capacity to supply the peak demand for electricity by consumers (including the transmission and distribution losses associated with power delivery). Also, an additional amount of reserve power plant capacity must be operational to act as instantaneous back-up supplies should some power plants or transmission lines unexpectedly fail. According to the Western Systems Coordinating Council (WSCC), to reliably deliver power, control area operators should maintain operating reserves of seven percent of their peak demand (including losses). If operating reserves decline below that level, customers that have agreed to be interrupted in exchange for reduced rates may be disconnected. If operating reserves get as low as one and a half percent, firm load will likely be shed locally, resulting in rotating blackouts, to avoid system-wide blackouts.

Current estimates by Energy Commission staff of consumer peak demand for electricity and reserve requirements, and of the expected availability of electricity capacity supplies for the summer of 2001, indicate that existing capacity supplies are not adequate to maintain a seven percent operating reserve margin particularly if summer temperatures rise above levels that have as much as a 10 percent chance of occurring. Therefore, additional capacity resources or demand reductions are needed now and by next summer to maintain a seven percent operating reserve margin under temperature conditions that have about a 10 percent chance of occurring.

Many efforts to reduce peak demand and supply new capacity are currently under way. More than 2,500 MW of new generation may be operational by July 2001. These projects include power plants already certified by the Energy Commission that are currently under construction; various upgrades, rerates and returns-to-service of existing power facilities; and new renewable generation responding to Energy Commission incentive programs. The emergency approval of new simple-cycle power plants at numerous locations throughout the state is also important to respond to peak summer demand and provide local electricity system reliability.

Staff assumes that power plant outages of about 3,000 MW will occur throughout the summer. If power plant outages this summer turn out to be greater than assumed, new capacity resources, such as peaking power plants, can help maintain an adequate reserve margin, and help avoid or shorten the duration of rotating blackouts.

PUBLIC HEALTH AND SAFETY

There is a reliability benefit associated with locating generation resources near the significant load centers. When load and generation are seriously out of balance, as they are in most service areas, the potential for system separation, islanding and cascading outages are significantly increased (U.S. Congress, Office of Technology Assessment, June 1990). If additional simple-cycle projects are not licensed and built, this reliability benefit will be foregone until additional larger baseload generation is built

in such areas. Although it is impossible to accurately calculate the likelihood of system outages, such outages are certainly plausible and are much greater without new generation resources in most California service areas. Power outages frequently occur during, and are often precipitated by, periods of extreme heat. Extreme summer heat creates extreme demand primarily from air conditioning loads. In fact, it has been demonstrated that demand in California is particularly sensitive to small increases in maximum summer temperature (CEC 1999). In the summer of 1998 the system demand in California increased by 4,000 MW as a result of a five-degree increase in temperature as compared to more typical maximums.

When major outages occur, there is an increased risk of significant public health and safety impacts. Fatalities and injuries associated with many types of accidents may result from outages, such as traffic accidents from signal and lighting failures, falls down unlighted stairways, fires caused by use of candles for lighting and unconventional open-flame cooking, loss of life support equipment in medical clinics, and electrical shock from improper use of portable electric generators. However, a much more serious risk is the potential morbidity and mortality associated with summer heat waves. Behind major epidemics, heat waves in California rank among the worst of all other natural disasters in the history of California for excess mortality. Heat waves have caused more fatalities in individual events than the 1906 earthquake (452 deaths), the San Francisquito Dam collapse of 1928 (450 deaths) and the Port Chicago explosion in 1944 (322 deaths) (Oechsli and Buechley 1970). The mortality associated with one California heat wave in 1955 resulted in 946 deaths (before air conditioning was in common use). Fortunately the mortality associated with such events is completely preventable (Semenza 1995). One of the most effective ways of avoiding mortality during heat waves is to spend time in air conditioned environments during the hottest parts of the day (CDC 2000). However, artificial climate control (air conditioning) may be mandatory to avoid fatalities when temperatures change abruptly (Bridger and Helfand 1968).

The availability of air conditioning has significantly reduced the mortality associated with heat waves in California and throughout the nation. It was estimated that increased use of air conditioning during the 1963 Los Angeles heat wave saved over 800 lives (Oechsli and Buechley 1970). Sensitive populations are often dependent on air conditioning to avoid aggravation of chronic health conditions such as chronic obstructive pulmonary disease or acute health effects such as heat stroke. It is widely recognized that hot weather conditions can significantly increase both morbidity and mortality, particularly among sensitive populations such as the very young, the elderly, and those with chronic diseases (Bridgerand and Heland 1968) (Schickele1947) (Oechsli and Buechley 1970) (Kalkstein et al 1989, 1993, 1997, 1998). Thus, shortages of electricity can impose risk of very serious impacts on the public, potentially increasing the risk of deaths due to heat waves. The vast majority of those who die in heat waves are at home without air conditioning and are elderly. Based on evaluation of the public health and safety risks associated with new projects, staff concludes that new generating projects are much more likely to reduce public health and safety risks than increase them.

AIR EMISSIONS OF BACK UP GENERATORS COMPARED WITH EMERGENCY PERMIT POWER PLANTS

California generation is among the cleanest in the country. This is due to negligible coal and oil use as generation fuel, the BARCT and Best Available Control Technology (BACT) rules, and a robust mix of geothermal, renewable, nuclear and hydroelectric generation. With the generation shortfalls California has experienced in recent months due to abnormal forced and unforced outage rates and shortages of instate and out of state generation capacity, several options have been considered to supply additional generation without compromising public health and safety.

One option is to utilize the existing fleet of diesel engines that are used as backup or standby generators for facilities such as hospitals, businesses, and essential services such as telephone, water, sewer, police and fire. Most of these generators are exempt from permitting as they are designed to only run when the grid fails to deliver electricity. That fleet is older and uncontrolled. It could represent 11,500 units, producing as much as 5,000 MW. However, as little as 1,200 MW may be compatible with operating in parallel with the grid. Most units are designed to only operate when isolated from the grid, and only with enough power for essential load at the facility.

Another option is to rely on a small number of diesel or natural gas engines that are permitted with emission control equipment as prime engines. Their emissions are in the range of 10 LB NOx/MWhr. However, they may not be tied to a generator (e.g., they may operate a pump or compressor) or are already operating at or near baseload, so they may not be able to supply much electricity to the grid. Other California generation options are less than 1.0 LB NOx/MWhr, but few are cleaner than the system NOx averages with the exception of demand reduction, solar, wind, and expensive fuel cells. The generation system emission averages will continue to decrease as the BARCT rules are fully implemented and the new generation with BACT installed comes online. The generation system emission average should approach 0.1 LB NOx/MWhr by 2005.

DIFFERENCES IN AIR EMISSIONS

Emission rates, rather than the sheer number of generators of any one type, are key to comparing emissions from different generation sources. For example, if there is a need for 1000 MW over 10 hours, or 10,000 MWhrs, then the NOx emissions are simply a product of the emission rate multiplied by 10,000. Diesel standby engine use would result in 150 tons of NOx over 10 hours, versus 1.5 tons from 1000 MW of natural gas-fired generation over the same period of time. A new simple cycle power plant, such as the 5 ppm General Electric LM6000 combustion turbine equipped with emission controls proposed for the King City project, would produce 0.9 tons of NOx during 10 hours of operation.

The location and configuration of a source are also significant factors in assessing the effect on air quality. If the 1000 MW is concentrated in one location (e.g., a 1000 MW combustion turbine or combined cycle project), and then the emission will be of relatively low concentration, will be buoyant, and will be emitted at a relatively high

elevation from a stack. If the 1000 MW consists of 1,000 one-MW diesel standby generators, the emissions will be emitted near ground level, at relatively high concentrations, and probably over a wide region or even throughout the state. Similarly, a dispersed set of peakers (e.g., twenty 50MW General Electric LM6000s) could be located throughout the state. Without knowing their exact locations, their effects on air quality are not entirely known. A peaking power plant located next to a hill or mountain, because of the terrain or topography, or in an area that is already heavily polluted, could result in violations whereas the other 1000 MW "configuration" might not.

EMISSION REDUCTION CREDIT BANK

The Governor's Executive Order D-24-01, charges the California Air Resources Board with the responsibility of creating a state emission reduction credit bank for the purpose of providing offsets for new or expanded peaking facilities that could add new power by this summer. This bank was initially funded with recent NOx reductions generated through the CARB's Carl Moyer Program, an incentive program. The incentives are grants that cover the incremental cost of cleaner on-road, off-road, marine, locomotive and stationary agricultural pump engines, as well as forklifts and airport ground support equipment. Because the new or expanded peaking facilities will operate under short term entitlements, for the purpose of responding to the energy crisis, the use of these mobile emission reductions are intended to provide NOx and particulate matter offsets for these peaking facilities.

These emission reduction credits (ERCs) are available through the Board to peaking power plants that need emission offsets in order to add new or expanded peaking capacity that will be on-line by September 30, 2001. These credits are intended to fully satisfy offset requirements of these power plants. The ERCs available from this bank are nitrogen oxides (NOx) and particulate matter less than 10 microns (PM10). Where needed, these ERCs will be issued to qualified power plant applicants for a three-year period. These ERCs will expire on November 1, 2003, to ensure that these credits will be available for three full summer peak seasons. The amount of NOx ERCs needed for this project is directly related to the emission control level of 5 parts per million NOx and the number of hours of operation. The CARB bank will make up to 21 tons per year available for purchase for each 50 MW power plant up to 100 MW total. Prior to the expiration of the CARB short term ERCs, applicants who use these credits will be required to secure permanent emission reductions for the remaining life of the power plant peaking units if the applicant desires to continue to operate the unit.

Heavy-duty engines are a significant source of smog-forming pollutants. About 525,000 heavy-duty diesel trucks are driven throughout the state, with another 680,000 diesel-fueled engines used in construction and agriculture. Together, diesel engines contribute about 40 percent of all NOx emissions from mobile sources. NOx is one of the main contributors to ground-level ozone, one of the most health-damaging components of smog. In addition, the fine particulate matter exhaust from heavy-duty diesel engines is a toxic air contaminant. The Carl Moyer incentive program focuses on reducing emissions of smog-forming oxides of nitrogen (NOx), but will also reduce particulate emissions.

Particulate matter includes many carbon particles (also called soot) as well as other gases that become visible as they cool. In 1998, California identified diesel particulate matter (diesel PM) as a toxic air contaminant based on its potential to cause cancer and other adverse health effects. In addition to PM, emissions from diesel-fueled engines include over 40 other cancer causing substances. Overall, emissions from diesel engines are responsible for the majority of the potential airborne cancer risk in California. Several studies have confirmed that the cancer risk from diesel particulate is greater than the risk from all other identified toxic air contaminants combined. Given these findings, using the proposed emission reduction credit strategy will be an effective means to offset peaking power plant emissions as an interim measure.

STAFF ANALYSIS OF THE CALPINE KING CITY LM 6000 PROJECT

AIR QUALITY

The analysis of the air quality impacts of emergency permit applications is performed by the California Air Resources Board and the local air pollution control district. Staff has proposed conditions of certification which require the applicant to limit fugitive dust emissions during construction and to comply with the authority to construct issued by the Monterey Bay Unified Air Pollution Control District (District).

On April 11, 2001, the District issued their 30-day notice of the intent to issue an authority to construct for this project. The Preliminary Determination of Compliance is included as Appendix A.

BIOLOGICAL RESOURCES

The proposed King City LM 6000 peaker site is located on 6.7 acres adjacent to the existing King City Co-Gen facility. The proposed site is comprised of a 0.7acre earthen berm, a 1.3 acre cleared area and 4.7 acres of cropland. The earthen berm will be retained and is presently covered by iceplant. The cleared area is sparsely vegetated, located primarily on the southern portion of the site and dominated by weedy species, including common mallow (*Malva neglecta)*, pineapple weed (*Chamomilla suaveolens)* and common knotweed (*Polygonum aviclare).* The agricultural portion of the site is row cropland.

A site survey conducted by Foster Wheeler Environmental on March 15, 2001 found no Threatened, Endangered or Sensitive (TES) species located on or adjacent to the site. A search of the California Natural Diversity Database (CNDD) (CDFG 2001) indicated a Bank swallow (*Riparia riparia)* nesting area exists within one mile of the project site. The CNDD also denotes the site as being within traditional San Joaquin Kit fox (*Vulpes macrotis mutica*) range. There is also potential habitat for Western burrowing owl (*Athena cunicularia hypugaea)* on and around the project site.

Bank swallows are a state listed threatened species. Bank swallows utilize vertical banks and cliffs near streams, rivers, lakes, and the ocean as nesting areas. The Bank Swallow Nesting Area is approximately 0.7 miles north of the existing Calpine King City Co-Gen plant on the banks of the Salinas River and is not expected to be impacted by the project.

The San Joaquin kit fox is federally listed as endangered and state listed as threatened. It is a subspecies of kit fox, which is the smallest member of the dog family in North America. The San Joaquin kit fox inhabits grasslands and scrub lands, many of which have been extensively modified by activities including oil and gas exploration and extraction, agriculture (irrigated pastures, orchards, vineyards, grazed annual grasslands) and fragmented by urbanization. The San Joaquin kit fox construct their

own dens but also enlarge or modify burrows made by other animals, such as ground squirrels, badgers and coyotes. They have also been known to utilize manmade structures, such as culverts, abandoned pipes, and banks in roadbeds. San Joaquin kit fox feed primarily on nocturnal rodents, ground squirrels, cottontails, ground-nesting birds, insects and vegetation. No San Joaquin kit fox have been observed during site surveys, but San Joaquin kit fox have shown a preference for disturbed and non-disturbed habitat similar to that found around the King City site and the potential exists for San Joaquin kit fox to be encountered on the project site.

There is also concern that the Western burrowing owl, a federal and state species of concern, may be encountered. Burrowing owl habitat is annual and perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Suitable habitat may also include trees and shrubs if the canopy cover is less than 30 percent of the ground surface (The California Burrowing Owl Consortium 1993). Burrowing owls use burrows constructed by other animals and may also use man made structures such as culverts, debris piles, and holes beneath pavement. No Burrowing owls have been observed during site surveys but due to the habitat on and around the project site the potential does exist for burrowing owl to be encountered.

The project site and immediately adjacent areas do not contain any critical habitat or TES species based on the site surveys provided by Foster Wheeler Environmental and verified by the CEC siting team biologist during a recent site visit. However, since the project site is located within the traditional range of several sensitive species there is a potential that a TES species will be encountered during construction. The San Joaquin kit fox and the Burrowing owl both have been know to utilize habitat similar to that on and around the project site.

Mitigation is required based on the present knowledge of the site. The project owner shall follow the *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS, April 1997) to minimize the potential for any take of San Joaquin kit fox.

SOILS AND WATER

WATER

Water Supply

The proposed King City LM 6000 peaker facility will use approximately 120-gpm of water at peak use. The water will be obtained from two existing wells that currently serve the existing King City Co-Gen plant. The two wells are located 1.5 miles from the project site and provide water from a common pipeline. The current lease agreement provides for the use of not more than 2,500 gpm (3.6 million gallons per day). The existing Co-Gen facility is currently using 1.6 million gallons per day and the proposed facility would utilize 172,800 gallons per day at peak use. A resulting total draw of 1.768

million gallons per day can then be expected which is well within the current systems capacity and lease agreement. Before utilization, the water will be treated by reverse osmosis membrane filtration. This treatment is necessary to generate demineralized water for use in the various plant systems.

Wastewater

The plant will generate wastewater totaling 32-gpm. The sources can be broken down into process wastewater and domestic/service wastewater.

The plant will have four sources of process wastewater: wastewater from the reverse osmosis process, cooling tower blowdown, wastewater from the Oil Water Separators (OWS), and turbine wash water. Total process discharge will be approximately 27 gpm. The bulk of the wastewater (16-gpm) will be from the reverse osmosis process. This wastewater typically has solute concentrations 3 to 4 times that of the freshwater used. There will also be approximately 11 gpm of wastewater from cooling tower blowdown. The cooling tower will be used to provide cooling water for the intake chilling system, fuel gas compressor, recycle gas cooler and the CTG lube oil system. The cooling tower wastewater typically has dissolved solids concentrations four (4) times higher than the freshwater used. Wastewater volume from the OWS process will not be significant. Wastewater from the reverse osmosis process and cooling tower blow down will not require any treatment prior to discharge. Water from specific plant drains around the combustion turbine generators will be routed to a separation sump with provisions for oil collection by an OWS. Oil will be skimmed off and disposed of offsite at an appropriate facility.

Turbine wash water will be approximately 200 gallons for every 250 hours of operation. The turbine will be washed with water and biodegradable soap, and the wastewater collected in an on-site portable water storage tank. This wastewater will be emptied as needed by a licensed contractor for disposal at a public wastewater facility.

The facility will also produce approximately two (2) gpm of sanitary wastewater. This wastewater will consist of normal sanitary sewer system wastes and will be discharged to the septic tank located onsite. Approximately three (3) gpm of service water will also be generated, this will be mainly general wash down water and will also be discharged to the onsite septic tank.

Process wastewater will be discharged to the adjacent Gilroy Foods. Gilroy Foods will then discharge it to the King City Sewage Treatment Plant (KCSTP) under their existing permit. The City has approved a staff recommendation to permit Calpine to increase their wastewater volume by 75,000 gallons per day. The constituents of the wastewater must be within the permitted levels as defined by the KCSTP.

The facility does not require a discharge permit for wastewater. The facility discharges wastewater to Gilroy foods which has a use permit with King City.

SOILS

During project construction and operation, wind and water action can erode unprotected surfaces. Areas of impervious surfaces (paved, compacted, etc.) can create increased runoff conditions, thereby resulting in potential erosion on unprotected down-gradient surfaces. Calpine has identified the need to develop an Erosion and Sediment Control Mitigation Strategy (ESCMS). The ESCMS has several parts that need to be addressed at various stages of the project. The first is the design of a drainage control plan. This plan identifies potential areas of erosion, and details the installation of interim and permanent stormwater runoff control measures. The second phase is the preparation of a Storm Water Pollution Prevention Plan (SWPPP) for construction along with the filing of a Notice of Intent (NOI) with the Regional Water Quality Control Board (RWQCB) for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. The SWPPP has two main functions; the first is to identify sources of pollutants associated with construction activities that may affect the quality of stormwater discharges from the site. The second function is to identify and implement site specific Best Management Practices (BMPs) to reduce or prevent pollutants associated with construction activities from entering stormwater discharge. The last phase of the ESCMS will be the development of a separate SWPPP and Storm Water Monitoring and Reporting Plan (SWMRP) for submission with the NOI for a NPDES permit for General Industrial Activities.

The applicant has not supplied a draft ESCMS. The ESCMS will need to be completed and various key components approved by the Compliance Project Manager (CPM) prior to ground disturbance (refer to standard conditions of certification). The ESCMS should cover and include the following basic standards and may include site-specific requests as dictated by the CPM.

- The topographic features of the proposed project including the areas involving all proposed pipeline construction, laydown (staging) areas, and stockpile location(s). The mapping scale should be 1"=100' or less. Sufficient surrounding area including the topography and existing features should also be provided on the drawings.
- Soil use limitations associated with construction and revegetation need to be acknowledged and resolutions should be provided to assist the contractor in overcoming any limitations.
- Proposed contours should be shown tying in with existing ones. All proposed utilities including stormwater facilities should be shown on the plan drawings. All erosion and sediment control facilities should be shown on the mapping. The drawing should contain a complete mapping symbols legend that identifies all existing and proposed features including the soil boundary and a limit of construction. The limit of construction boundary should include the project facility, stockpile areas, and laydown areas.
- A detailed and specific construction sequence is needed that addresses all sequences of events from initial mobilization until final stabilization is achieved.

- Calculations should be provided for all proposed ditches and rip-rap energy dissipaters. The plan drawings should provide specific details and cross-sections of all proposed facilities.
- The design calculations for the sediment stormwater retention basin should account for stormwater and sediment storage for existing and proposed runoff.
- Silt fence and sandbags should be installed on level grade and parallel to the existing contour. If the slope length to 18" or 30" silt fence exceeds 250 feet or 500 feet respectively other erosion and sediment control facilities should be used. Silt fence and sandbags should be used to trap sediment, and not as runoff conveyance facilities. Earthen berms or channels can be substituted to intercept sediment-laden runoff and direct it into the sediment-retention basin.
- Spoil material should not be located near any stormwater inlets and should be hauled offsite to an approved disposal area.
- Disturbed areas including the stockpiles treated with dust suppressors (i.e. water) to reduce fugitive dust pollution.
- All site specific BMPs should appear on the erosion and sediment control plan and the stormwater management plan. The stormwater plan should provide the entire drainage area along with supporting calculations that include a curve number, time of concentration, rainfall intensity and stage storage within the retention basin. The basin should be adequate to handle the 100-year, 24-hour storm. Calculations should be provided to demonstrate the amount of time it takes for the basin to dewater. All plans approved for adequacy are to be implemented by the contractor. The Compliance Project Manager (CPM) should be contacted before any revisions are made to the approved plans.

Spill Prevention/ Water Quality Protection

The main source of potential spills is from lubricating and hydraulic oil stored and used onsite. The total quantity of oil onsite exceeds the threshold quantity, so a Spill Prevention Control and Countermeasures Plan (SPCC) per 40 CFR 112 is required. Calpine will amend the existing SPCC for the King City Co-Gen plant to include the new sources of oil at the purposed LM6000 peaker plant prior to their installation.

The proposed LM6000 project will also use anhydrous ammonia in the Selctive Catalytic Reduction (SCR) system to control Nitrogen Dioxide (NO_x) emmisions. The ammonia will be piped in from a storage location at the adjacent King City Co-Gen plant. The ammonia storage is already covered under King City Co-Gen facilities existing SPCC. Amendments will be made to cover the ammonia delivery system. All chemicals stored onsite will be in closed containers and will include secondary containment to prevent the flow of chemicals into storm sewers.

National Discharge Elimination Permits

General NPDES for Storm Water Discharges Associated With Construction Activity

The total project area exceeds five acres (6.7acres) so a NPDES permit for Storm Water Runoff from Construction Activities will be needed. Part of the NPDES permitting process is the submission of a Notice of Intent (NOI) application and the development of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will include an erosion control and storm water management plan that identifies Best Management Practices (BMPs) for construction activities.

General NPDES for discharges of Storm Water associated With Industrial Activities

A NPDES permit for Storm Water Discharges Associated With Industrial Activities will be needed. Prior to plant operations a NOI including a separate SWPPP will need to be submitted along with a Notice of Termination (NOT) for activities under the NPDES construction permit. The SWPPP will include erosion control and storm water management plans that identifies BMPs for plant operations. The SWPPP also contains a Storm Water Monitoring and Reporting Plan (SWMRP). The NOT, NOI and supporting documents are submitted to the RWQCB.

HAZARDOUS MATERIALS MANAGEMENT

The project, as originally proposed, involved storage and handling of anhydrous ammonia for NOx control as discussed in section 7.1 of the Application For Certification. However, the project was modified to utilize the existing facility's ammonia storage tank to supply ammonia for NOx control. The amount of ammonia piped into the proposed facility would not pose a potential for significant impacts in the event of a complete failure of the piping. The proposed storage and handling procedures for the project are sufficient to reduce the risk of accidental release and potential for impacts associated with hazardous materials to insignificant levels.

CULTURAL RESOURCES

The proposed King City LM6000 project is an expansion to the existing King City Co-Gen facility. As stated in the application, Foster Wheeler Environmental conducted a records search at the Northwest Information Center of the California Historical Resources Information System at California State University, Sonoma.
The records search determined that no known cultural resources have been recorded within the project boundary, or within a 1-mile radius.

Foster Wheeler Environmental conducted a pedestrian field survey on March 22, 2001 to identify any potential cultural resources. No cultural resources were identified in the Area of Potential Effect (APE) during this survey. CEC Emergency Siting staff

conducted a site visit on April 11, 2001. The APE is has been disturbed by previous agricultural uses and landscaping for the existing Co-Gen facility.

The records search and field survey results determined that the project APE is within a low archaeological sensitivity zone. The site is not characterized by landforms or localities that would be associated with prehistoric sites. Because of the low possibility of encountering archaeological sites in the project area, no on-site cultural resource monitoring is required for this proposed site. However, if buried cultural resources are encountered during construction a qualified cultural resource specialist will evaluate the finding.

PALEONTOLOGICAL RESOURCES

The paleontological literature review and sensitivity analysis for the project indicated that there are no known paleontological resources within two miles of the project and that the project site has a low paleontological sensitivity and low potential for encountering significant paleontological resources (Calpine 2001a). The site where the proposed project is located is highly disturbed from previous construction activities for the existing power plant. Ground disturbance of previously undisturbed alluvium will be minimal since there are no additional linear facilities, and the light loads associated with the foundation of the peaker point to shallow foundations.

LAND USE (INCLUDES SITE DESCRIPTION, NOISE, LAND USE, TRAFFIC, AND VISUAL)

SITE DESCRIPTION

The proposed project site is a 6.7-acre portion of a 15-acre parcel located east of Metz Road and south of Airport Drive in the City of King. The subject site represents the southern portion of a parcel that is currently developed with the King City Co-Generation facility. Although the subject site has not been previously developed, a portion has been graded and filled. The remainder of the subject site is planted with fodder crops and shows evidence of previous discing. A six- to eight-foot earthen mound is located on the eastern portion of the site, adjacent to Metz Road. The mound is landscaped with ice plant and a sprinkler system.

Surrounding land uses include the existing power plant to the north and fodder crops to the east and south. Metz Road is located west of and adjacent to the site. A Southern Pacific Railroad (SPRR) line is located immediately west of Metz Road. Land to the west of SPRR is active agricultural land. The undeveloped land to the east and south has been subdivided by the City for industrial development. The land west of Metz Road is within Monterey County and is used for agriculture. As a result of a recent development proposal, this land has been proposed for annexation and rezoning to low density residential.

The nearest residential area is a subdivision located approximately 700 feet to the south of the closest property line on the west side of Metz Road. Other area land uses include industrial development to the north and east, the Mesa Del Rey Airport to the southeast, and commercial/industrial development to the south.

NOISE

Existing noise sources in the vicinity of the project area include the airport, the power plant, Gilroy Foods, other industrial uses, free-flowing traffic on Metz Road and Airport Boulevard, and intermittent air and rail traffic. The nearest sensitive receptor to the site is the subdivision to the south. However, a 10-foot-high solid block wall borders the residential development on the north and east sides, shielding all houses but those located near the ingress/egress of the subdivision.

Noise impact information supplied by the applicant indicates that the nearest sensitive receptor (i.e., residence not shielded by the sound wall) would be approximately 1,100 feet from the proposed expansion facility's noise source. Based on this, project noise levels at the subdivision, with standard enclosures already installed on the turbine generators and ancillary equipment, would range between 40.1 dBA (for the nearest houses shielded by the barrier) to 47.6 dBA (for unshielded in direct line of the noise source). If the plant were to operate 24 hours a day, the equivalent Ldn levels would be 46.1 dBA and 54.0 dBA for shielded and unshielded houses, respectively. A few residences in direct line of sight could experience an increase of 7.4 dBA above the nighttime levels. However, all these levels comply at the residential property line with the 65 dBA residential noise limits set forth in the King City General Plan. An ambient noise survey performed in March 2001 indicated that the existing Ldn (over a 25-hour period) at the subdivision was 59.2 dBA, which is higher than projected noise levels from the facility expansion, but still lower than the City's threshold.

The applicant has indicated that the nearest point on the site boundary to the noise-producing equipment would be 125 feet from the southern boundary. The predicted noise level at this point would be 68 dBA, which is exactly the threshold required by the city code for industrial uses. Therefore, the project would be in compliance with the King City noise thresholds.

Although noise mitigation would not likely be required for operation of the facility expansion, implementation of Condition of Certification **NOISE-1** would require that the project comply with community noise standards. It is likely that the city would require landscaping and fencing; this would further reduce noise impacts.

With regard to construction-related noise impacts, the applicant has indicated that most activities would occur Monday through Saturday from 6 a.m. to 6 p.m. However, start-up construction is proposed for a 24-hour, seven-day schedule. **NOISE-2** requires that, prior to construction, the applicant notify all residents within one mile of the project site. **NOISE-4** requires that nighttime construction activities be permitted only if noise levels from construction are consistent with local noise ordinances. (The applicant did not provide data on construction-related noise levels). Finally, **NOISE-3** requires that the project owner document, investigate and mitigate all project-related noise impacts.

Implementation of these Conditions of Certification would ensure that impacts associated with noise are less than significant.

LAND USE

The portion of the project site proposed for development is undeveloped. However, the land is currently utilized for the existing power plant's septic tank. The tank would be abandoned and rebuilt on-site, and would serve both the existing plant and the facility expansion.

The proposed project site is located adjacent to undeveloped parcels on the east and south. These parcels are designated by the city's general plan and zoning ordinance for industrial development. The existing power plant, industrial development and the airport are located to the north and west of the site. To the south is commercial/industrial development. Metz Road, the SPRR and active agricultural land are located to the west. This land is within Monterey County and has a land use designation as Agricultural. As noted above, the land is being considered for annexation into the City and rezoning to low density residential. A public hearing and action is scheduled for May 11, 2001. The City is in support of the annexation and rezoning, which will facilitate the development of a residential development proposed approximately one-half mile west of the expansion site. The City is also in support of the proposed expansion, and would address potential land use conflicts when adjacent low-density land is proposed for development. It is important to note that any development proposed for this land would be exposed to the existing power plant and rail line, and land use impacts could occur regardless of the expansion.

The General Plan land use designation for the project site is Industrial (also classified within the General Plan as part of the East Ranch Industrial Park Light Industrial Economic Zone), and the zoning classification is Industrial (M-1). The proposed use is consistent with the King City General Plan land use designation and zoning ordinance. However, a use permit would be required to construct the 80-foot flue gas stack. This would also require authorization from the airport and Federal Aviation Administration (FAA) to ensure consistency with airport guidelines and regulations. A Notice of Proposed Construction or Alteration has been filed with the FAA for the 80-foot stack. In addition, the applicant has indicated that landscaping requirements would be discussed with the King City Planning Director.

The project requires no new linear facilities, and would connect to existing utilities available on-site. There would therefore be no land use issues associated with off-site construction or operation.

The applicant has indicated that the laydown area and construction parking would require approximately 2.2 acres and would be located entirely on-site on the eastern portion of the site. Further discussion regarding potential construction-related impacts can be found in the **Cultural Resources, Biological Resources** and **Traffic and Transportation** sections of this report.

The applicant has indicated that all local, state and federal land use requirements would be met. This would be assured by the imposition of Conditions of Certification **LAND-1**, which would ensure that all applicable laws, ordinances, regulations and standards (LORS) have been met, including coordination with the FAA for construction of the 80-foot stack. This would reduce any current land use impacts to less than significant.

TRAFFIC AND TRANSPORTATION

Site access is provided by two possible routes: Highway 101 to First Street to Bittersweet Road to Metz Road, or Highway 101 to Broadway Street to San Antonio Road to Metz Road. These roads are currently used by truck traffic from Highway 101 to the warehouse operations and other commercial or industrial facilities at the East Branch Industrial Park. Traffic data from 1994 and 1995 was supplied by the applicant. This data indicated that the proposed access routes to the site were operating at an acceptable level of service. The applicant also provided partial data (traffic counts on some roadways) for 1999. The data does not indicate a level of increase in trips that would result in significant changes in LOS from 1994.

The project would not generate significant traffic during operation. Normal project operation would not require additional staff and parking would be provided at the existing power plant. Operation of the proposed facility expansion would not result in significant traffic impacts.

Although all construction, construction-related parking and staging has been proposed on-site, the transport of construction materials to and from the site could temporally disrupt local traffic patterns. The applicant has included a Traffic Control Plan (TCP) as part of the application. Features of this TCP include: Traffic control measures; coordinating construction and delivery activities; scheduling traffic lane or road closures during off-peak hours; restricting truck and construction traffic to approved access roads, construction yards and construction sites; and, coordinating oversized load delivery with the railroad. The TCP would be implemented in accordance with the California Department of Transportation (Caltrans), County and City requirements. The applicant has also indicated that it would obtain all applicable permits from Caltrans and other agencies, and would label all construction materials in accordance with applicable California Vehicle Codes.

Implementation of a TCP would reduce most construction traffic impacts to a less than significant level along area roadways. This would be reinforced by the implementation of Conditions of Certification **TRANS-1** and **TRANS-3**. Conditions of Certification **TRANS-2** and **TRANS-4** (which refer to encroachment and damage to public roadways) would not be required because the project requires no off-site improvements.

VISUAL RESOURCES

The project site is generally flat, with a large graded area and smaller area covered with grass. The portion of the site that fronts Metz Road (west property line) includes a six- to eight-foot earthen mound that is currently planted with ice plant. The King City Co-Generation plant is adjacent to the north. Undeveloped land is adjacent on the east,

south and west. Area uses include industrial to the north and west, and commercial and residential to the south.

Project plans call for the development of a simple-cycle peaking facility, cooling towers, and associated facilities, including an 80-foot flue gas stack, that would be visible from the east, west, and south. The view from the north would be of the existing plant. The proposed lighting system would provide illumination for normal operating conditions and emergency situations. This would be visible at night, but would not result in a significant increase in lighting above that generated by the existing plant.

Preliminary landscape plans indicate that the earthen mound would be planted with evergreens and deciduous plants, similar to plantings on a mound to the north. This would provide screening to a height of approximately 15 feet when the plantings mature. The east and south property lines are adjacent to vacant land that has been subdivided for industrial development. The landscape plan submitted does not feature planting, fencing or screening on these property lines. Residential development is located approximately 700 feet to the south of the nearest property line. This development features a 10-foot wall for screening and noise attenuation.

A use permit would normally be required from the City to construct the stack on the expansion site. However, because of the Energy Commission exclusive permitting authority, the city need only advise the Energy Commission as to whether it would allow the construction of the stack. In addition, the applicant has indicated that additional landscaping and lighting requirements would be discussed with the King City Planning Director. This would provide an opportunity for additional attenuation from visual impacts.

The project is also subject to specific Conditions of Certification **VIS-1, VIS-2,** and **VIS-3,** which require steps to ensure mitigation of potential visual impacts and a landscaping plan for the project. Implementation of these conditions and the implementation of the King City Planning Director's recommendations, will reduce aesthetic impacts to a less than significant level.

ENGINEERING

FACILITY DESIGN

The project, including its linear facilities, such as water and natural gas pipelines, will be designed and constructed in compliance with the California Building Code (CBC) and all other applicable engineering LORS (see Condition of Certification **GEN-1** below). This will be assured by the Commission's delegate Chief Building Official (CBO), whose duties are prescribed under the CBC. These duties include the review of project designs by qualified engineers and the inspection of project construction by qualified inspectors. The CBO's performance, in turn, will be ensured through monitoring by the Commission's Compliance Project Manager.

ENVIRONMENTAL JUSTICE

For all siting cases, including the emergency permitting process, Energy Commission staff follows the federal guidelines' two-step screening process. The process assesses:

- whether the potentially affected community includes minority and/or low-income populations; and
- whether the environmental impacts are likely to fall disproportionately on minority and/or low-income members of the community.

The 2000 census data shows for King City that census tracks within six miles of the project site include greater than 50% minority population. Staff has determined that the impacts from this project, with implementation of staff's recommended conditions of certification, will not result in a significant impact in the surrounding community. Though minority populations are present in the area, staff finds that there are no environmental justice issues associated with this project.

TRANSMISSION SYSTEM ENGINEERING

The Calpine King City facility will connect to the Basic Energy – Coburn 60 kV transmission line in the Pacific Gas and Electric (PG&E) service territory. The power produced by the generators will be stepped up to from 13.8 kV 60 kV and will connect to the existing transmission line. The operation of the Calpine King City facility will result in the emergency overload of the 230/60 kV transformer at the Coburn substation. This overload can be mitigated by the implementation of a remedial action scheme or by increasing the transformer capacity at the substation[1]. The California Integrated System Operator will prescribe mitigation measures for the Calpine King City plant. Based on the results of the interconnection study, the operation of Calpine King City will not require significant downstream electric facilities and will comply with safety standards[2]. The interconnection of the Calpine King City facility will not require the construction of linear downstream transmission facilities, and there are no significant transmission issues.

CONCLUSION

The King City project, if built and operated in compliance with the proposed conditions of certification included in this staff assessment, will be available in time to help alleviate the current emergency. The proposed conditions of certification serve to protect the public interest and the environment. Staff recommends approval of this project.

[1] California Independent System Operator Letter to Arthur McAuley, RE: King City Peaker Project Transmission Interconnection Study, April 11, 2001.

[2] CPUC General Order 95, CPUC Rule 21, Title 8, Articlies 35, 36 and 37, Title 8 CCR, Sections 2700-2974, CPUC Decision 93-11-013, Federal Communications Commission Part 15, Public Resources Code 4292-4296, and the National Electric Code.

STAFF CHECKLIST

The following Emergency Permit Evaluation Checklist is designed to provide an easy-to-follow guide to the application and staff's analysis of project impacts. Included in the Checklist are the Application Requirements, a determination by staff of whether or not the material was provided, and the location of the information in the applicant's document. The checklist then shows staff's analysis of significant issues, any special conditions needed to resolve those issues, and any required comments or references.

CALPINE KING CITY LM6000 PROJECT
EMERGENCY PERMIT EVALUATION CHECKLIST
CALIFORNIA ENERGY COMMISSION

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
	Yes or no, if in app.	*Where in application is it.*	*Either leave blank; or provide a short summary or reference to a note to be inserted below.*	*Flag any special condition if included;* *Also flag any standard condition that is not being included.* *Otherwise, leave blank.*	***If necessary, include a short note of explanation, or reference to a note to be inserted below.***
1 Project Description					
1.1 Project owner/operator (Name, title, address, phone)	Yes	1-1			
1.2 Overview of power plant and linear facilities	Yes	1-1			
1.3 Structure dimensions (size and height), plan and profile	Yes	1-9			
1.4 Full size color photo of the site and rendering of proposed facility if available	Yes	Section 15; Figures 15-1, 15-3	Rendering not available		

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
1.5 Maximum foundation depth, cut and fill quantities	Yes	1-7	Foundations, designed per results of a site geotechnical investigation, will rest on a site that may require only minor grading, cut and fill.		
1.6 Conformance with California Building Code	Yes	1-7	All engineering design and construction work will be performed to the applicable LORS, including the 1998 California Building Code.		
1.7 Proposed operation (hours per year)	Yes	1-7			
1.8 Expected on-line date	Yes	1-10			
1.9 Proposed duration of operation (years)	Yes	1-10			
1.10 Identify transmission interconnection facilities	Yes	1-10			
1.11 Transmission interconnection application	Yes	Appendix A			
1.12 “Down-stream” transmission facilities, if known	Yes	1-10 and Cal-ISO preliminary approval letter 4/11/01	No significant issues. Project will be required to participate in a remedial action scheme to mitigate emergency overloads.		

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
1.13 Fuel interconnection facilities	Yes	1-10			
1.14 Fuel interconnection application	Yes	Appendix B			
1.15 Water requirements and treatment	Yes	1-11			
1.16 Water interconnection facilities (supply/discharge)	Yes	1-11			
1.17 Source and quality of water supply	Yes	1-11			
1.18 Water supply agreement/ proof of water supply	Yes	1-13			
2. Site Description					
2.1 Site address (street, city, county)	Yes	Page 2-1			
2.2 Assessor's parcel number	Yes	Page 2-1			
2.3 Names and addresses of all property owners within 500 feet of the project site or related facilities in both hard copy and electronic mail merge format.	**YES**	**PAGE 2-1**	**NONE**		

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
2.4 Existing site use	**YES**	**PAGE 2-1**	**The a portion of the site has been graded. This site has also been improved with a septic system and leach field.**		**See potential impacts analysis in Section 8, Biological Resources, Section 11 Traffic and Transportation and Section 13, Cultural Resources.**
2.5 Existing site characteristics (paved, graded, etc.)	Yes	Page 2-1	**The a portion of the site has been graded. This site has also been improved with a septic system and leach field.**		**See potential impacts analysis in section 8, Biological Resources, section 11 Traffic and Transportation and section 13, Cultural Resources.**
2.6 Layout of site (include plot plan)	Yes	Page 2-1 and Figure 1-4	None		See potential impacts analysis in Section 8, Biological Resources, Section 11 Traffic and Transportation and Section 13, Cultural Resources.
2.7 Zoning and general plan designations of site and linear facilities	Yes	Page 2-3	None		
2.8 Ownership of site (Name, address, phone)	Yes	Page 2-3	None		
2.9 Status of site control	Yes	Page 2-3	None		

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
2.10 Equipment laydown area – size and location	Yes	Page 2-3	None		See potential impacts analysis in Section 8, Biological Resources, Section 11 Traffic and Transportation and Section 13, Cultural Resources.
3. Construction Description					
3.1 Construction schedule	Yes	3-1			
3.2 Workforce requirements (peak, average)	Yes	3-1			
4. Power Purchase Contract (DWR, ISO, other)					
4.1 Status of negotiations and expected signing date	Yes	4-1			
5 Air Emissions					
5.1 Nearest monitoring station (location, distance)	Yes	5-1			
5.2 Provide complete self certification air permit checklist	Yes	Appendix D			
5.3 Provide complete air permit application	Yes	Appendix D			
5.4 Status of air permit application with air district	Yes	5-1			

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
5.5 Status of offsets and/or mitigation fees, as required	Yes	5-1			
6 Noise					
6.1 Local noise requirements	Yes	Page 6-1	None		
6.2 Nearest sensitive receptor (type, distance)	Yes	Page 6-1	Sensitive receptors would experience increases in noise levels. However, these are not expected to exceed the noise level thresholds established by the City.	NOISE-1: Requires the project to comply with local noise standards. NOISE-2 and NOISE-3 address construction impacts. NOISE-4 requires the owner to address all noise complaints.	A 10-foot wall at the senstive receptor would provide attenuation. Additional mitigation is provided by Conditions of Certification for Noise.
6.3 Project noise level at nearest property line	Yes	Page 6-1	None	NOISE-1: Requires the project to comply with local noise standards.	
6.4 Proposed mitigation if required	Yes	Page 6-2	None.		
7 Hazardous Materials					
7.1 Type and volume of hazardous materials on-site	Yes	Section 7 O1-EP-6 April 10, 2001			
7.2 Storage facilities and containment	Yes	Section 70 1-EP-6 April 10, 2001			

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
8. Biological resources					
8.1 Legally protected species* and their habitat on site, adjacent to site and along right of way for linear facilities *(*threatened or endangered species on State or federal lists, State fully protected species)*	Yes	8-1 – 8-3	Potential for San Joaquin kit fox and Burrowing owls to be encountered on site.	Site survey by a qualified biologist prior to ground disturbance.	
8.2 Designated critical habitat on site or adjacent to site (wetlands, vernal pools, riparian habitat, preserves)	Yes	8-3			
Proposed mitigation as required	Yes	8-3 – 8-4	Use of standardized protocols for construction in kit fox areas		
9 Land Use					
9.1 Local land use restrictions (height, use, etc.)	Yes	Page 9-1, 9-2	Site plan and elevations provided are not detailed enough to determine if height requirements, setbacks and lot coverage standards are being met. 80-foot flue gas stack exceeds height limit.	LAND-1: Requires that all applicable LORS be met. The applicant will obtain a use permit for the flue gas stack.	The applicant has indicated that the project as proposed is consistent with the City's land use requirements, and has indicated that the Planning Department is being consulted on this and a number of other issues.

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
9.2 Use of adjacent parcels (include map)	Yes	Page 9-2 and Figure 9-1	None		Map not included in application
9.3 Ownership of adjacent parcels – site and linears	Yes	Page 9-2	None		
9.4 Demographics of census tract where project is located (most current available)	Yes	Pages 9-2	None		
10 Public Services					
10.1 Ability to serve letter from Fire District	Yes	10-1; Appendix E			
10.2 Nearest fire station	Yes	10-1			
11 Traffic and Transportation					
11.1 Level of Service (LOS) measurements on surrounding roads – a.m. and p.m. peaks	Yes	Page 11-3, 11-4	None		Traffic data was collected in mid-1990s. 1999 traffic counts provided indicate that traffic volume has not increased significantly.
11.2 Traffic Control Plan for roads during construction period	Yes	Page 11-2	None	TRANS-1, TRANS-2, TRANS-3 reinforces provisions of TCP.	
11.3 Traffic impact of linear facility construction	N/A	N/A	N/A		Project does not propose linear construction.

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
11.4 Equipment transport route	Yes	Page 11-4	None	TRANS-4: Requires owner to return all affected roadways to original condition.	
11.5 Parking requirements – workforce and equipment	Yes	Page 17	None		See potential impacts analysis in Section 8, Biological Resources, and Section 13, Cultural Resources.
12 Soil and Water Resources					
12.1 Wastewater volume, quality, treatment	Yes	12-1			
12.2 Status of permits for wastewater discharge or draft permit (WDR/NPDES)	Yes	12-1 – 12-2	Applicant addresses the need to obtain NPDES permits, and provides a timeline for their acquisition		
12.3 Draft Erosion Prevention and Sedimentation Control Plan or Mitigation Strategy	No	12-1 – 12-2	No draft was provided. The applicant addressed the need to develop a ESCMS		
12.4 Spill Prevention/Water Quality Protection Plans	Yes	12-2 Appendix H	Applicant will amend the existing SPCC. The Applicant also identifies the need to obtain the appropriate NPDES permits that require a SWPPP to be drafted.		

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
13 Cultural Resources					
13.1 Identification of known historic/prehistoric sites	Yes	13.1	No cultural resources recorded on site during records search or survey. No cultural resource monitoring is required.	No special conditions are necessary for this project.	
13.2 Proposed mitigation if required	Yes	13.1	No mitigation is necessary for this project.	No special conditions are necessary for this project.	Mitigation of unanticipated finds is addressed in the application
14 Paleontological Resources					
14.1 Identification of known paleontologic sites	Yes	Page 14-1			
14.-2 Proposed mitigation if required	Yes	Page 14-1			
Visual resources					
15.1 Plan for landscaping and screening to meet local requirements	Yes	**Page 15-1 and figure 15-2**	Landscape plan does not show fencing or side and rear yard plantings.	VIS-3: requires landscape plan.	Applicant has indicated that recommendations of the planning director will be incorporated into plans.

Application Requirement	Y/N	Application pages	Significant Issues	Special Conditions	Comments
15.2 Full size color photo of the site and rendering of proposed facility with any proposed visual mitigation if available	Yes	Figures 15-1, 15-3, 15-4	Photos do not include proposed visual mitigation.	VIS-1: Requires structures to be manufactured and/or painted in neutral color. VIS-2: Addresses lighting.	See above.
15 Transmission System Engineering					
15.1 Conformance with Title 8, High Voltage Electrical Safety Orders, CPUC General Order 95 (or NESC), CPUC Rule 21, PTO Interconnection Requirements, and National Electric Code	Yes				

CALPINE KING CITY LM6000 PROJECT
GENERAL CONDITIONS INCLUDING COMPLIANCE MONITORING AND CLOSURE PLAN

INTRODUCTION

General conditions (and the Compliance Plan) have been established as required by Public Resources Code section 25532. The plan provides a means for assuring that the facility is constructed, operated and closed in accordance with applicable environmental and public health and safety laws, ordinances, regulations, and standards, and with conditions of certification as approved by the California Energy Commission (Energy Commission).

The Compliance Plan is comprised of general conditions and technical (environmental and engineering) conditions as follows:

General conditions that set forth the duties and responsibilities of the Compliance Project Manager (CPM), the project owner, and delegate agencies; the requirements for handling confidential information and maintaining the compliance record; procedures for settling disputes and making post-certification changes; administrative procedures to verify the compliance status; and requirements for facility closure plans.

Specific conditions for each technical area contain the measures required to mitigate potential adverse impacts associated with construction, operation and closure to an insignificant level. Specific conditions may also include a verification provision that describes the method of verifying that the condition has been satisfied.

DEFINITIONS

To ensure consistency, continuity and efficiency, the following terms, as defined, apply to all technical areas, including Conditions of Certification:

Site Mobilization

Moving trailers and related equipment onto the site, usually accompanied by minor ground disturbance, grading for the trailers and limited vehicle parking, trenching for utilities, installing utilities, grading for an access corridor, and other related activities. Ground disturbance, grading, etc. for site mobilization are limited to the portion of the site necessary for placing the trailers and providing access and parking for the occupants. Site mobilization is for temporary facilities and is therefore not considered construction.

Ground Disturbance

Onsite activity that results in the removal of soil or vegetation, boring, trenching or alteration of the site surface. This does not include driving or parking a passenger vehicle, pickup truck, or other light vehicle, or walking on the site.

Grading

Onsite activity conducted with earth-moving equipment that results in alteration of the topographical features of the site such as leveling, removal of hills or high spots, or moving of soil from one area to another.

Construction

[From Public Resources Code section 25105.] Onsite work to install permanent equipment or structures for any facility. Construction does **not** include the following:

a. The installation of environmental monitoring equipment.

b. A soil or geological investigation.

c. A topographical survey.

d. Any other study or investigation to determine the environmental acceptability or feasibility of the use of the site for any particular facility.

e. Any work to provide access to the site for any of the purposes specified in a, b, c, or d.

TERM OF CERTIFICATION

Certification is for the life of the project if at the end of the power purchase agreement with either the California Independent System Operator or the California Department of Water Resources the project owner can verify that the project meets the following continuation criteria:

- the project is permanent, rather than temporary or mobile in nature;
- the project owner demonstrates site control;
- the project owner has secured permanent emission reduction credits (ERCs) to fully offset project emissions for its projected run hours prior to expiration of any temporary ERCs;
- the project is in current compliance with all Energy Commission permit conditions specified in the final decision;
- the project is in current compliance with all conditions contained in the Permit to Construct and Permit to Operate issued by Monterey Bay Unified Air Pollution Control District (MBUAPCD) for the project; and

- the project continues to meet BACT requirements under MBUAPCD and California Air Resources Board (CARB) requirements.

The project shall expire if these continuation criteria are not met. At least six months prior to the expiration of the power purchase agreement with the Department of Water Resources (DWR), or prior to the expiration of the Summer Reliability Agreement with the California Independent System Operator if no DWR contract is signed, the project owner shall provide verification that these conditions have been meet.
In addition, the project owner shall submit a report after completion of the first three years in operation, as described below.

COMPLIANCE PROJECT MANAGER (CPM) RESPONSIBILITIES

A CPM will oversee the compliance monitoring and shall be responsible for:

1. ensuring that the design, construction, operation, and closure of the project facilities is in compliance with the terms and conditions of the Commission Decision;
2. resolving complaints;
3. processing post-certification changes to the conditions of certification, project description, and ownership or operational control;
4. documenting and tracking compliance filings; and
5. ensuring that the compliance files are maintained and accessible.

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

The Commission has established a toll free compliance telephone number of **1-800-858-0784** for the public to contact the Commission about power plant construction or operation-related questions, complaints or concerns.

Pre-Construction and Pre-Operation Compliance Meeting

The CPM may schedule pre-construction and pre-operation compliance meetings prior to the projected start-dates of construction, plant operation, or both. The purpose of these meetings will be to assemble both the Energy Commission's and the project owner's technical staff to review the status of all pre-construction or pre-operation requirements contained in the Energy Commission's conditions of certification to confirm that they have been met, or if they have not been met, to ensure that the proper action is taken.

Energy Commission Record

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

1. All documents demonstrating compliance with any legal requirements relating to the construction and operation of the facility;
2. All complaints of noncompliance filed with the Energy Commission; and
3. All petitions for project modifications and the resulting staff or Energy Commission action taken.

PROJECT OWNER RESPONSIBILITIES

It is the responsibility of the project owner to ensure that the general compliance conditions and the conditions of certification are satisfied. The general compliance conditions regarding post-certification changes specify measures that the project owner must take when requesting changes in the project design, compliance conditions, or ownership. Failure to comply with any of the conditions of certification or the general compliance conditions may result in reopening of the case and revocation of Energy Commission certification, an administrative fine, or other action as appropriate.

Access

The CPM, responsible Energy Commission staff, and delegate agencies or consultants, shall be guaranteed and granted unrestricted access to the power plant site, related facilities, project-related staff, and the records maintained on site, for the purpose of conducting audits, surveys, inspections, or general site visits. Although the CPM will normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time.

Compliance Record

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

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

Compliance Reporting

The project owner shall submit status reports to the CPM every two weeks indicating its progress in meeting milestones for procuring necessary project components and all required approvals for construction and operation of the facility by September 30, 2001. The first of these reports will be due two weeks after certification of the project by the Energy Commission.

Start of Operations

The Calpine King City LM6000 Project (King City) shall be on-line by not later than September 30, 2001. If King City is not operational by September 30, 2001, the Energy Commission will conduct a hearing to determine the cause of the delay and consider what sanctions, if any, are appropriate. If the Energy Commission finds that the project owner failed to proceed with due diligence to have Drews in operation by September 30, 2001, the Energy Commission will set a specific date by which Drews must be brought on-line as a condition precedent to continue the certification.

Three-Year Review

No later than 15 days after completion of the first three years in operation, the project owner shall submit to the Energy Commission a report of operations that includes a review of the project's compliance with the terms and conditions of certification, the number of hours in operation, and the demand for power from the facility during the three year period.

Compliance Verifications

Conditions of certification may have appropriate means of "verification". The verification describes the Energy Commission's procedure(s) to ensure post-certification compliance with adopted conditions. The verification procedures, unlike the conditions, may be modified, as necessary by the CPM, without full Energy Commission approval.

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

- reporting on the work done and providing the pertinent documentation in monthly and/or annual compliance reports filed by the project owner or authorized agent as required by the specific conditions of certification;
- appropriate letters from delegate agencies verifying compliance;
- Energy Commission staff audits of project records; and/or
- Energy Commission staff inspections of mitigation and/or other evidence of mitigation.

A cover letter from the project owner or authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. The cover letter subject line shall identify the involved condition(s) of certification by condition number and include a brief description of the subject of the submittal.

All submittals shall be addressed as follows:

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

Confidential Information

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

Reporting of Complaints, Notices, and Citations

Prior to the start of construction, the project owner must send a letter to property owners living within 500 feet of the project notifying them of a telephone number to contact project representatives with questions, complaints or concerns. If the telephone is not staffed 24 hours per day, it shall include automatic answering, with date and time stamp recording. The telephone number shall be posted at the project site and easily visible to passersby during construction and operation.

The project owner shall report and provide copies of all complaint forms, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt, to the CPM.

GENERAL CONDITIONS FOR FACILITY CLOSURE

In order to ensure that a planned facility closure does not create adverse impacts, plant closure must be consistent with all applicable laws, ordinances, regulations, standards (LORS), and local/regional plans in existence at the time of closure. To ensure adequate review of a planned project closure, the project owner shall submit a proposed facility closure plan to the Energy Commission for review and approval at least three months prior to commencement of closure activities (or other period of time agreed to by the CPM).

DELEGATE AGENCIES

To the extent permitted by law, the Energy Commission may delegate authority for compliance verification and enforcement to various state and local agencies that have expertise in subject areas where specific requirements have been established as a condition of certification. If a delegate agency does not participate in this program, the Energy Commission staff will establish an alternative method of verification and enforcement. Energy Commission staff reserves the right to independently verify compliance.

In performing construction and operation monitoring of the project, the Energy Commission staff acts as, and has the authority of, the Chief Building Official (CBO). The Commission staff retains this authority when delegating to a local CBO. Delegation of authority for compliance verification includes the authority for enforcing codes, the responsibility for code interpretation where required, and the authority to use discretion, as necessary, in implementing the various codes and standards.

ENFORCEMENT

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

Moreover, to ensure compliance with the terms and conditions of certification and applicable laws, ordinances, regulations, and standards, delegate agencies are authorized to take any action allowed by law in accordance with their statutory authority, regulations, and administrative procedures.

NONCOMPLIANCE COMPLAINT PROCEDURES

Any person or agency may file a complaint alleging noncompliance with the conditions of certification. Such a complaint will be subject to review by the Energy Commission pursuant to Title 20, California Code of Regulations, section 1230 et. seq., but in many instances the noncompliance can be resolved by using the informal dispute resolution process. Both the informal and formal complaint procedures, as described in current State law and regulations, are described below. They shall be followed unless superseded by current law or regulations.

INFORMAL DISPUTE RESOLUTION PROCEDURE

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

This procedure may precede the more formal complaint and investigation procedure specified in Title 20, California Code of Regulations, section 1230 et. seq., but is not intended to be a substitute for, or prerequisite to it. This informal procedure may not be used to change the terms and conditions of certification as approved by the Energy Commission, although the agreed upon resolution may result in a project owner proposing an amendment.

The procedure encourages all parties involved in a dispute to discuss the matter and to reach an agreement resolving the dispute. If a dispute cannot be resolved, then the matter must be referred to the full Energy Commission for consideration via the complaint and investigation process. The procedure for informal dispute resolution is as follows:

Request for Informal Investigation

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

Upon receipt of a request for informal investigation, the CPM shall promptly notify the project owner of the allegation by telephone and letter. All known and relevant information of the alleged noncompliance shall be provided to the project owner and to the Energy Commission staff. The CPM will evaluate the request and the information to determine if further investigation is necessary. If the CPM finds that further investigation is necessary, the project owner will be asked to promptly investigate the matter and within seven (7) working days of the CPM's request, provide a written report of the results of the investigation, including corrective measures proposed or undertaken, to the CPM. Depending on the urgency of the noncompliance matter, the CPM may conduct a site visit and/or request the project owner to provide an initial report, within forty-eight (48) hours, followed by a written report filed within seven (7) days.

Request for Informal Meeting

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

1. Immediately schedule a meeting with the requesting party and the project owner, to be held at a mutually convenient time and place and secure the attendance of appropriate Energy Commission staff and staff of any other agency with expertise in the subject area of concern as necessary;
2. Conduct such meeting in an informal and objective manner; and,
3. After the conclusion of such a meeting, promptly prepare and distribute copies to all in attendance and to the project file, a summary memorandum which fairly and accurately identifies the positions of all parties and any conclusions reached.

FORMAL DISPUTE RESOLUTION PROCEDURE-COMPLAINTS AND INVESTIGATIONS

If either the project owner, Energy Commission staff, or the party requesting an investigation is not satisfied with the results of the informal dispute resolution process, such party may file a complaint or a request for an investigation with the Energy Commission's General Counsel. Disputes may pertain to actions or decisions made by any party including the Energy Commission's delegate agents. Requirements for complaint filings and a description of how complaints are processed are in Title 20, California Code of Regulations, section 1230 et. seq.

The Chairman, upon receipt of a written request stating the basis of the dispute, may grant a hearing on the matter, consistent with the requirements of noticing provisions. The Commission shall have the authority to consider all relevant facts involved and make any appropriate orders consistent with its jurisdiction (Title 20, California Code of Regulations, sections 1232 - 1236).

POST CERTIFICATION CHANGES TO THE COMMISSION DECISION: AMENDMENTS, INSIGNIFICANT PROJECT CHANGES

The project owner must petition the Energy Commission, pursuant to Title 20, California Code of Regulations, section 1769, to 1) delete or change a condition of certification; 2) modify the project design or operational requirements; and 3) transfer ownership or operational control of the facility.

A petition is required for **amendments** and for **insignificant project changes**. In all cases, the petition or letter requesting a change should be submitted to the Commission's Docket in accordance with Title 20, California Code of Regulations, section 1209. The criteria that determine which type of change process applies are explained below.

EXECUTIVE ORDER

Executive Order D-25-01 issued by the Governor of the State of California, which accelerates processing of certain project modifications, will be applied to all qualifying project modifications requested until December 31, 2001.

AMENDMENT

A proposed project modification will be processed as an amendment if it involves a change to a condition of certification, an ownership or operator change, or a potential significant environmental impact.

INSIGNIFICANT PROJECT CHANGE

The proposed modification will be processed as an insignificant project change if it does not require changing the language in a condition of certification, have a potential for

significant environmental impact, and cause the project to violate laws, ordinances, regulations or standards.

VERIFICATION CHANGE

Changes to condition verifications require CPM approval and may require either a written or oral request by the project owner. The CPM will provide written authorization of verification changes.

NOISE

NOISE-1 The project permitted under this emergency process shall be required to comply with applicable community noise standards.

Verification: Within 30 days of the project first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey, utilizing the same monitoring sites employed in the pre-project ambient noise survey as a minimum. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints. Steam relief valves shall be adequately muffled to preclude noise that draws legitimate complaints. If the results from the survey indicate that the project noise levels at the closest sensitive receptor are in excess of 50 dBA between the hours of 10 PM and 7 AM, additional mitigation measures shall be implemented to reduce noise to a level of compliance with this limit.

NOISE-2 Prior to the start of rough grading, the project owner shall notify all residents within one mile of the site of the start of construction and will provide a complaint resolution process.

Verification: The project owner shall provide the CPM with a statement, attesting that the above notification has been performed.

NOISE-3 Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project related noise complaints.

Verification: Within 30 days of receiving a noise complaint, the project owner shall file a copy of the Noise Complaint Resolution Form, or similar instrument approved by the CPM, with the County Environmental Health Department, and with the CPM, documenting the resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a 30-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is finally implemented.

NOISE-4 Night construction activities may be authorized by the CPM if they are consistent with local noise ordinances. Night construction, or specific night construction activities may be disallowed by the CPM if it results in significant impact to the surrounding community.

Verification: Noise monitoring and surveys may be conducted if complaints are reported by residence in the surrounding area of the project site.

HAZARDOUS MATERIALS MANAGEMENT

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

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

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

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

WASTE

WASTE-1 The project owner shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to producing any hazardous waste.

Verification: The project owner shall keep its copy of the identification number on file at the project site.

WASTE-2 The project owner shall have an environmental professional available for consultation during soil excavation and grading activities. The environmental professional shall be given full authority to oversee any earth moving activities that have the potential to disturb contaminated soil. The environmental professional shall meet the qualifications of such as defined by the American Society for Testing and Materials designation E 1527-97 Standard Practice for Phase I Environmental Site Assessments.

Verification: If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities, the environmental professional shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and make a recommended course of action. The environmental professional shall have the authority to suspend construction activity at that location. If, in the opinion of the environmental professional, remediation is to be required, the project owner shall

consult with the CPM and a decision will be made by the CPM within 24 hours as to how to proceed.

BIOLOGICAL RESOURCES

BIO-1 The project permitted under this emergency process will avoid all impacts to legally protected species and their habitat on site, adjacent to the site and along the right of way for linear facilities.

Verification: Documentation will be provided to the CPM prior to ground disturbance to verify that the Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 1997) are in place and that construction personnel have been trained accordingly.

BIO-2 The project permitted under this emergency process will avoid all impacts to designated critical habitat (wetlands, vernal pools, riparian habitat, preserves) on site or adjacent to the site.

BIO-3 The project permitted under this emergency process will avoid all impacts to locally designated sensitive species and protected areas.

BIO-4 The project permitted under this emergency process will reduce risk of large bird electrocution by electric transmission lines and any interconnection between structures, substations and transmission lines by using construction methods identified in “Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996” (APLIC 1996).

BIO-5 The project biologist, a person knowledgeable of the local/regional biological resources, and CPM will have access to the site and linear rights-of-way at any time prior to and during construction and have the authority to halt construction in an area necessary to protect a sensitive biological resource at any time.

BIO-6 Upon decommissioning the site, the biological resource values will be reestablished at preconstruction levels or better.

Verification: If the Designated Biologist halts construction, the action will be reported immediately to the CPM along with the recommended implementation actions to resolve the situation or decide that additional consultation is needed. Throughout construction, the project owner shall report on items one through six above if identified resources are found or impacted.

BIO-7 Prior to site disturbance a qualified biologist will survey the project site and surrounding areas to determine if there are active kit fox dens or Burrowing owl burrows.

Verification: The designated Biologist shall submit a report of the findings to the CPM prior to construction. If San Joaquin kit fox, Burrowing owl or other TES species are found the CPM may recommend additional agency consultation.

LAND USE

LAND–1 The project permitted under this emergency process will conform to all applicable local, state and federal land use requirements, including general plan policies, zoning regulations, local development standards, easement requirements, encroachment permits, truck and vehicle circulation plan requirements, Federal Aviation Administration approval, and the Federal Emergency Management Agency National Flood Insurance Program.

Verification: Prior to start of construction, the project owner will submit to the CPM documentation verifying compliance with the above referenced land use requirements.

LAND–2 Prior to occupying any off-site lay-down or storage facilities the applicant shall provide detailed plans indicating the location of existing and proposed use of the sites to the CPM. Such sites shall be previously disturbed and shall not require any clearing or grading to accommodate the proposed use. To prevent possible impacts to sensitive resources the applicant shall coordinate with the CPM to determine if biological or cultural surveys are required. This submission shall include written landowner approval and must comply with all local land use requirements. If the proposed site is located within public rights-of-way appropriate traffic control plans and encroachments permits will be provided to the CPM.

Verification: Prior to the start of construction, the project owner will submit to the CPM documentation verifying compliance with the above referenced land use requirements.

TRAFFIC AND TRANSPORTATION

TRANS-1 The project permitted under this emergency process shall comply with Caltrans and City/County limitations on vehicle sizes and weights. In addition, the project owner or its contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.

Verification: The project owner shall keep copies of any oversize and overweight transportation permits received at the project site.

TRANS-2 The project permitted under this emergency process shall comply with Caltrans and City/County limitations for encroachment into public rights-of-way and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.

Verification: The project owner shall keep copies of any encroachment permits received at the project site.

TRANS-3 The project permitted under this emergency process shall ensure that permits and/or licenses are secured from the California Highway Patrol and Caltrans for the transport of hazardous materials.

Verification: The project owner shall keep copies of all permits/licenses acquired by the project owner and/or subcontractors concerning the transport of hazardous substances at the project site.

TRANS-4 Following completion of construction of the power plant and all related facilities, the project owner shall return all roadways to original or as near original condition as possible.

SOIL & WATER RESOURCE

SOIL&WATER-1 Prior to ground disturbance, the project owner shall obtain CPM approval of a Storm Water Pollution Prevention Plan (SWPPP) as required under the General Storm Water Construction Activity Permit for the project.

Verification: Prior to ground disturbance, the project owner will submit a copy of the Storm Water Pollution Prevention Plan for the project to the CPM

SOIL&WATER-2 Prior to ground disturbance, the project owner shall obtain CPM approval of an Erosion Prevention and Sedimentation Control Plan.

Verification: The Erosion Control and Storm Water Management Plan for the project shall be submitted to the CPM prior to ground disturbance.

SOIL&WATER-3 Prior to site mobilization, the project owner shall submit to the CPM, a copy of a valid water service agreement for water supplies for the project from an authorized water purveyor, or a copy of a valid well permit for the project from the appropriate licensing agency.

Verification: The water service agreement or well permit shall be submitted to the CPM prior to site mobilization.

SOIL& WATER-4 Prior to operation, the project owner shall submit to the CPM a copy of a valid permit or agreement from the appropriate approving agency for wastewater discharge.

Verification: The permit or agreement for wastewater discharge shall be submitted to the CPM prior to operation.

SOIL& WATER-5 Prior to construction, the project owner shall submit to the CPM, a copy of the completed geo technical report.

Verification: The geo-technical report for the project shall be submitted to the CPM prior to ground disturbance.

SOIL&WATER-6 During construction and plant operation the project owner will adhere to all applicable Federal, State and Local Laws, Ordinances, Regulations and Standards concerning stormwater management and discharge.

Verification: Prior to ground disturbance, the project owner will submit a copy of the Storm Water Pollution Prevention Plan for the project to the CPM.

CULTURAL RESOURCES

CUL-1 The project certified under this emergency process shall not cause any significant impact to cultural resources on the power plant site or linear rights of way. No significant cultural resources have been identified in the Area of Potential Effect (APE). No on-site cultural resource monitoring is required for this proposed site. In the event of an inadvertent cultural find the following conditions apply:

1. The presence of subsurface archaeological resources is always a possibility in areas where only surface inspection has taken place. In the unlikely event that sub-surface archaeological remains are discovered during ground disturbing activities (i.e., grading and/or excavation), work in the area must halt and a qualified Cultural Resource Specialist (CRS) will be contacted immediately to evaluate the significance of the find. The project manager, construction manager, and the Compliance Project Manager (CPM) will be notified if the resource is judged to be potentially significant, and the archaeologist may recommend further study.
2. In the event that suspected human remains are encountered, work must stop immediately within a radius of 100 feet (30 meters) of the discovery, and the Monterey County Coroner's Office will be notified within 24 hours of the find. If the skeletal remains are determined to be prehistoric, the Coroner's Office will contact the Native American Heritage Commission (NAHC) to identify the Most Likely Descendents (MLD). The MLD will be notified and will determine the most appropriate disposition of the remains and any associated artifacts.

CUL-2 This standard condition does not apply to this project.

VISUAL

VIS-1 Project structures treated during manufacture and all structures treated in the field, that are visible to the public, shall be painted in a neutral color consistent with the surrounding environment.

Verification: Prior to painting exposed services, the project owner shall identify the selected color for CPM approval.

VIS-2 The project owner shall design and install all lighting such that light bulbs and reflectors are not visible from public viewing areas and illumination of the vicinity and the nighttime sky is minimized. Lighting must also be installed consistent with any local requirements.

Verification: The project owner shall inform the CPM of any complaints concerning lighting and when measures have been taken to correct the problem.

VIS-3 The project owner shall prepare and submit to the local planning department for review and comment, and to the CPM for review and approval a landscaping plan which provides for any or all of the following, as appropriate, to screen the project from view: berms, vegetation and trees, and slats in fencing.

Verification: Within 30 days of certification, the project owner shall submit the landscaping plan to the local planning department and the CPM.

FACILITY DESIGN

GEN-1 The project owner shall design, construct and inspect the project in accordance with the 1998 California Building Code (CBC) and all other applicable LORS in effect at the time initial design plans are submitted to the CBO for review and approval.

Verification: Within 30 days (or a lesser number of days mutually agreed to by the project owner and the CBO) after 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. The project owner shall provide the CPM a copy of the Certificate of Occupancy within 30 days of receipt from the CBO [1998 CBC, Section 109 – Certificate of Occupancy.] The project owner shall keep copies of plan checks and CBO inspection approvals at the project site.

PALEONTOLOGICAL

PALEO-1 This standard condition does not apply to this project.

PALEO-2 The project has been determined to have the potential to adversely affect significant Paleontological resources and the project owner shall ensure the completion of the following actions/activities:

1. Provide a paleontological specialist who will have access to the site and linear rights-of way at any time prior to and during ground disturbance.
2. The paleontological specialist will provide training to appropriate construction personnel at the site, will install avoidance measures (as necessary), and will be present during appropriate ground disturbing activities. The cultural specialist has the authority to halt construction at a location if a significant paleontological resource is found. If resources are discovered and the specialist is not present, the project owner will halt construction at that location and will contact the specialist immediately. The specialist will consult with the CPM and a decision will be made by the CPM within 24-hours as to how to proceed.
3. The project owner shall allow time for the paleontological specialist to protect significant resource finds, and pay all fees necessary to protect any significant resources.

Verification: Throughout construction, the project owner shall inform the CPM concerning any substantive activity related to items 1 through 3 above.

TRANSMISSION SYSTEM ENGINEERING, SAFETY AND RELIABILITY

TSE-1 The project owner shall ensure that the design, construction and operation of the proposed transmission facilities will conform to requirements listed below:

The power plant switchyard, outlet line and termination shall meet or exceed the electrical, mechanical, civil and structural requirements of CPUC General Order 95, CPUC Rule 21, Title 8, California Code of Regulations, Articles 35, 36 and 37 of the, “High Voltage Electric Safety Orders”, Title 8 CCR, Sections 2700-2974, CPUC Decision 93-11-013, Federal Communications Commission Part 15, Public Resources Code 4292-4296, and National Electric Code (NEC).

Verification: Within 15 days after cessation of construction the project owner shall provide a statement to the CPM from the registered engineer in responsible charge (signed and sealed) that the switchyard and transmission facilities conform to the above listed requirements.

WORKER AND FIRE SAFETY

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

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

AIR QUALITY

AQ-1 Prior to the commencement of project construction, the project owner shall prepare a Construction Fugitive Dust Mitigation Plan that will specifically identify fugitive dust mitigation measures that will be employed for the construction of the project and related facilities.

Measures that should be addressed include the following:

- the identification of the employee parking area(s) and surface of the parking area(s);
- the frequency of watering of unpaved roads and disturbed areas;
- the application of chemical dust suppressants;
- the stabilization of storage piles and disturbed areas;
- the use of gravel in high traffic areas;
- the use of paved access aprons;
- the use of posted speed limit signs;
- the use of wheel washing areas prior to large trucks leaving the project site;
- the methods that will be used to clean tracked-out mud and dirt from the project site onto public roads; and
- for any transportation of borrowed fill material, the use of covers on vehicles, wetting of the material, and insuring appropriate freeboard of material in the vehicles.

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

AQ-2 The project owner shall comply with the terms and conditions of the Authority to Construct and the Permit to Operate issued by Monterey Bay Unified Air Pollution Control District.

Verification: In the event that the air district finds the project to be out of compliance with the terms and conditions of the Authority to Construct, the project owner shall notify the CPM of the violation, and the measures taken to return to compliance, within five (5) days.

AQ-3 The project owner shall operate the project in compliance with all Best Available Control Technology (BACT) standards imposed by the Air District in its Authority to Construct. Failure to meet these standards will result in a finding that the project owner is out of compliance with the certification.

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CALPINE KING CITY LM6000 PROJECT
EMERGENCY PERMIT EVALUATION PREPARATION TEAM
CALIFORNIA ENERGY COMMISSION

Bob Eller .....Project Manager

Mary Dyas..... Project Assistant

Jeff Ogata .....Legal Counsel

Christian Huntley.....Compliance Manager

Paul Shattuck..... Cultural Resources

Bob Anderson ..... Paleontologic Resources

Nick Kautzman..... Biological Resources

Tami Borton .....Land Use, Noise, Transportation, Visual

Rick Tyler..... Hazardous Materials Management

Steve Baker ..... Facility Design

Mark Hesters.....Transmission Engineering

APPENDIX A

PRELIMINARY DETERMINATION OF COMPLIANCE

EVALUATION REPORT

PRELIMINARY DETERMINATION OF COMPLIANCE

FOR

CALPINE KING CITY COGENERATION, LLC
750 METZ ROAD
KING CITY, CA 93930

APPLICATION NUMBER 10738
CEC DOCKET NUMBER AFC 01-EP-6

PREPARED BY

MIKE SEWELL
AIR QUALITY ENGINEER

MONTEREY BAY UNIFIED
AIR POLLUTION CONTROL DISTRICT
24580 SILVER CLOUD COURT
MONTEREY, CA 93940
(831) 647-9411

AUTHORIZED FOR RELEASE ON: April 11, 2001

APPROVED BY: _____ Fred Thoits, Engineering Division Manager

DATE: _____

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EVALUATION DATA

Company:	Calpine King City Cogeneration, LLC
Application #:	10738
Address:	750 Metz Road King City, CA 93930
UTM Coordinates:	Horizontal: 668.8: Vertical: 4010.9
Contact Person:	Steve Bean/Brian McDonald
District Engineer:	Mike Sewell
SIC Code:	4911
Start:	4/2/01
SCC Code:	1-01-006-01
Finish:	4/11/01
Site Location:	750 Metz Road King City, California

I. PROJECT DESCRIPTION

On March 30, 2001, Calpine King City Cogeneration, LLC (Calpine) submitted a permit application to the District for the installation of a nominally rated 49.6 MW natural gas fired gas turbine at its existing power plant in King City. On April 4, 2001, Calpine submitted an Application for Certification (AFC) to the California Energy Commission (CEC) for this project. The application submitted was deemed complete by the CEC on April 11, 2001.

Calpine has requested an expedited permit for this project as allowed for under Executive Orders D-26-01 and D-28-01 issued by Governor Davis. These Executive Orders allow for a streamlined 21 day permit review process for the installation of power projects that will be online by September 30, 2001.

The proposed project consists of the installation of a nominally rated 49.6 MW General Electric LM6000PC simple cycle combustion turbine. When installed, this proposed project will result in an increase in the total nominal power production of the King City Power Plant from the presently permitted 123.3 MW to 172.9 MW.

II. APPLICABLE RULES

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301 Permit Fee Schedules
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III. EQUIPMENT LIST

Application 10738 - Gas Turbine Consisting Of:

1. Simple Cycle Natural Gas Fired Gas Turbine Generator, General Electric Frame 6, Model LM6000PC, Rated At 467.6 MMBtu/Hr Maximum Heat Input And 49.6 MW Nominal Electrical Output, Water Injection To Control NO_x.

2. Selective Catalytic Reduction NO_x Control System.

3. Oxidation Catalyst For Carbon Monoxide Control.

4. CEM System Designed To Continuously Record The Measured Gaseous Concentrations, And Calculate And Continuously Monitor And Record The NOx And CO Concentrations Corrected To Fifteen (15) Percent Oxygen (O2) On A Dry Basis.

IV. PROPOSED OPERATION

Calpine proposes to operate the this unit on a "merchant plant" basis. The equipment will be operated when it is economically viable for the power generated to be sold to the power grid.

Calpine proposes that the facility, including the new turbine will stay below the existing facility NO_x cap. They propose to do this by over-controlling the gas turbine emissions and/or by limiting hours of operation of all or some of the combustion equipment. Emissions increases will occur for the other criteria pollutants. However, with the exception of PM_{10}, the emission increases will not trigger offsetting requirements. The applicant has proposed to fully offset the facilities' PM_{10} emissions as required by District Rule 207.

V. AIR QUALITY IMPACT ANALYSIS

As an addendum to their application, Calpine provided an Air Quality Impact Analysis. This included screening modeling using Screen3 to address the impacts of the project. The modeled project impacts were combined with background concentrations to verify that the project would not contribute to violations of the Ambient Air Quality Standards.

The information has been extracted from the addendum and is tabulated below. The first table addresses the Air Quality Increment in Area E (where the facility is located and where maximum impacts occur), the second addresses the Air Quality Increment for Area A (the Pinnacles National Monument and the Ventana Wilderness Area). The third table is a comparison of the project impacts combined with background concentrations versus the ambient air quality standards.

Increment Analysis - Area E

Pollutant	Maximum Modeled Impact Area E (ug/m^3)	Designated Area E (ug/m^3)	Averaging Period	Below Allowable Increment Consumption
Carbon Monoxide (CO)	6.8	12,000	1-hour	yes
Nitrogen Dioxide (NO_2)	0.75	25	annual	yes
TSP	0.22 1.1	19 37	annual 24-hour	yes yes
PM_{10}	0.22 1.1	10.8 21.1	annual 24-hour	yes yes
Sulfur Dioxide (SO_2)	0.03 0.14 0.32	20 91 512	annual 24-hour 3-hour	yes yes yes

Increment Analysis - Area A

Pollutant	Maximum Modeled Impact Area E[1] (ug/m^3)	Designated Areas A (ug/m^3)	Averaging Period	Below Allowable Increment Consumption
Carbon Monoxide (CO)	6.8	4,000	1-hour	yes
Nitrogen Dioxide (NO_2)	0.75	2.5	annual	yes
TSP	0.22 1.1	5 10	annual 24-hour	yes yes
PM_{10}	0.22 1.1	2.8 5.7	annual 24-hour	yes yes
Sulfur Dioxide (SO_2)	0.03 0.14 0.32	2 5 25	annual 24-hour 3-hour	yes yes yes

Note: [1] - Maximum impact occurred in Area E. This maximum Area E impact was also utilized to determine increment consumption for Area A.

The two tables above indicate that the project does not exceed any air quality increment. Therefore, the project complies with the air quality increment provisions of Rule 207.

Cumulative Impacts Vs. Ambient Air Quality Standards

Pollutant	Avg. Period	Max. Project Impact (ug/m^3)	Bckgnd Conc. (ug/m^3)	Total Impact (ug/m^3)	State Standard (ug/m^3)	Federal Standard (ug/m^3)	Below Applicable Standard(s)
Carbon Monoxide (CO)	1-hour 8-hour	6.8 4.8	6,900 3,222	6,907 2,523	23,000 10,000	40,000 10,000	yes yes
Nitrogen Dioxide (NO_2)	1-hour annual	9.3 0.75	113 21	122.3 21.8	470 --	-- 100	yes yes
PM_{10}	24-hour annual(1) annual(2)	1.1 0.22 0.22	65 22.0 21.4	66.1 22.2 21.7	50 30 --	150 -- 50	no yes yes
Sulfur Dioxide (SO_2)	1-hour 3-hour 24-hour annual	0.36 0.32 0.14 0.03	156 73.5 39 2.63	156.4 73.8 39.1 2.6	650 -- 109 --	-- 1,300 365 80	yes yes yes yes

Note: (1) Annual Arithmetic Mean, (2) Annual Geometric Mean.

The table above identifies that the project emission concentrations when combined with background concentrations do not exceed the ambient air quality standards with the exception of the State PM_{10} standard. Although the table identifies an exceedance of the State PM_{10} standard, the District has determined that this project will not cause or contribute to the violation of an ambient air quality standard. The basis for this determination is the fact that existing PM_{10} concentrations already exceed the standard, and the fact that the facility is fully offsetting PM_{10} emission increases via the use of banked emissions. Therefore, the project as proposed complies with the Ambient Air Quality Standard provisions of Rule 207.

Visibility Impacts

A visibility analysis of the project's gaseous emissions is required under Rule 207. The analysis addresses the contributions of gaseous emissions (primarily NO_x) and particulate (PM_{10}) emissions to visibility impairment on the nearest Class A areas, which are the Ventana Wilderness Area and the Pinnacles National Monument to the west and north, respectively. Calpine used the EPA approved model VISCREEN to assess the project's visibility impacts. The results from the VISCREEN modeling analysis indicated that the project's visibility impacts would be below the significance criteria for contrast and perception . Therefore the project's visibility impacts on these Class A areas are considered insignificant.

VI. EMISSIONS CALCULATIONS

Rule 207 Review of New or Modified Sources

The proposed project's emission parameters are shown in the following table.

Proposed Project Emission Parameters

EQUIPMENT	POLLUTANT	CONCENTRATION (ppmvd @ 15% O_2)	EMISSION FACTOR (lb/MMBtu)	EMISSION RATE[1] (lb/hr)
LM6000 Baseload	NO_x	5.0[2]	0.0185	8.65
	SO_x		0.0007[3]	0.33
	VOC	2.0[2]	0.00257	1.20
	CO	6.0[2]	0.0135	6.31
	PM_{10}/TSP		0.00535[4]	2.50[4]
LM6000 Start-up[5]	NO_x			35.00[4]
	SO_x		0.0007[3]	0.33[3]
	VOC			0.89[4]
	CO			27.00[4]
	PM_{10}/TSP			2.50[4]

Notes:
[1] Maximum emission rates based upon maximum heat input of 467.6 MMBtu/Hr.
[2] BACT levels established by Rule 207.
[3] Based upon fuel sulfur content of 0.25 gr/100 dscf natural gas.
[4] Emission rate provided by vendor, emission factor shown was back-calculated.
[5] These 1 hour emission levels include shutdown emissions.

The maximum daily potential to emit for this equipment is based upon an operating scenario where the unit undergoes a one hour start-up period and 23 hours of operation at full load, except VOCs where maximum emissions are based on 24 hours of full load operation as start-up emissions are less than hourly emissions at full load.

Maximum Daily Potential to Emit (Pounds/Day)

EQUIPMENT	NO_x	SO_x	VOC	CO	PM_{10}/TSP
Start-up[(1)]	35.00	0.33	0.89	27.00	2.50
Baseload[(2)]	198.95	7.59	27.6	145.13	57.5
Total	233.95	7.92	28.8 [(3)]	172.13	60.00

Notes: [(1)] 1 hour start-up.
[(2)] 23 hours of operation at full load.
[(3)] 24 hours of operation at full load, full load equates to greater VOC emissions.

Best Available Control Technology (BACT)

The applicable BACT thresholds from Rule 207, Sections 4.1.1 and 5.2, the proposed project's maximum daily emissions and the determination as to whether BACT is required are shown in the following table.

Determination if BACT is Required

Pollutant	BACT Emission Threshold (Lbs/day)	Proposed Project Emissions (Lbs/day)	BACT Required
NO_x as NO_2	25	233.95	Yes
SO_x as SO_2	150	7.92	No
VOC	25	28.49	Yes
CO	550	172.13	No
TSP	150	60.00	No
PM_{10}	82	60.00	No

As can be seen in the table above, BACT is required for NO_x and VOCs. Calpine has proposed BACT (shown in the following table) which is consistent with the ARB's Guidance for Power Plant Siting and Best Available Control Technology dated June, 1999. Even though BACT is not triggered for SO_x, CO, and TSP/PM_{10}, the installation of an oxidation catalyst and the combustion of natural gas are considered BACT for these pollutants, and therefore they are included in the following table.

Gas Turbine BACT

Pollutant	Applicant's Proposal	BACT as Defined in ARB Power Plant Siting Document	Additional Discussion Required?
NO_x as NO_2	5.0 ppmvd @ 15% O_2 1-hour rolling average	Same	No
SO_x as SO_2	Emission Limit Based on Natural Gas Fuel <0.25 grains/100 dscf	Emission Limit Based on Natural Gas Fuel <1 grain/100 dscf	No
VOC	2.0 ppmvd @ 15% O_2 1-hour rolling average	Same	No
CO	6.0 ppmvd @ 15% O_2 1-hour rolling average	6.0 ppmvd @ 15% O_2 3-hour rolling average	No
TSP	Emission Limit Based on Natural Gas Fuel <0.25 grains/100 dscf	Emission Limit Based on Natural Gas Fuel <1 grain/100 dscf	No
PM_{10}	Emission Limit Based on Natural Gas Fuel <0.25 grains/100 dscf	Emission Limit Based on Natural Gas Fuel <1 grain/100 dscf	No

No fuel oil firing, or alternative fuels other than natural gas have been proposed for the project.

Offsets

The facility net emissions increase, which establishes the calculation methodology for offsets is based upon the methodology contained in Section 7.4 of Rule 207. This calculation is based upon the existing facility cap for the combustion equipment, the limit on PM_{10} emissions from the cooling tower and the emissions associated with the new turbine. This net emissions increase does not include emissions from the emergency firing of fuel oil as allowed for in the permits for the facilities existing combustion units, as the District does not require offsets for the use of backup fuels designated/permitted for use only in emergency conditions. The existing equipment is allowed to operate 240 hours per year on number 2 fuel oil in the event of a natural gas supply interruption or curtailment.

Note that the facility has agreed to operate all equipment (the existing turbine and two boilers and the new turbine) below the existing facilities' NO_x limit. **Therefore, the NO_x values shown in the following table are for reference and do not signify a net emissions increase**. The existing facilities' NO_x limit will be included on this permit to ensure compliance.

Net Emissions Increase (Pounds/Day)

EQUIPMENT	NO_x	SO_x	VOC	CO	PM_{10}/TSP
Existing Combustion Equipment	1070.0	16.1	33.6	607.2	88.8
Existing Cooling Tower	---	---	---	---	20.00
New Gas Turbine	233.95	7.92	28.49	172.13	60.00
Offsets Supplied For Frame 7[(1)]	-230.68	-13.70	-127.12	-271.23	-18.63
Totals	1,073.27	10.32	-65.03	508.1	150.17

Notes: [(1)]From April 12, 1989 District Letter to the California Energy Commission on the offset package for the BAF Energy Project (85-AFC-5A)

Determination if Offsets are

Pollutant	Offset Threshold (Lbs/day)	Project Net Emissions Increase (Lbs/day)	Offsets Required
NO_x as NO_2	137	0	No
SO_x as SO_2	150	10.32	No
VOC	137	-65.03	No
CO	550	508.1	No
TSP	150	150.17	Yes
PM_{10}	82	150.17	Yes

As can be seen in the table above, offsets are only required for the TSP/PM_{10} emissions. The net emissions increase from this project exceed the offset threshold for PM_{10} specified in Section 4.2 of Rule 207; therefore offsets are required. The offsets provided must fully offset the net emission increase by quarter.

The applicant has requested to use the PM10 limits established in Conditions 16 and 21 on Title V Permit TV02-04A to establish the potential to emit (PTE) for the existing

equipment at the facility for offsetting purposes. In addition to offsetting the emissions as identified in Conditions 16 and 21 on Title V Permit TV02-04A, the facility will need to offset the quarterly emission increases from the new equipment less the previous emission reductions from the installation of the original facility. Therefore, the facilities PM_{10} net emission increase is shown in the following table by calendar quarter and on an annual basis.

PM_{10}Net Emissions Increase (Pounds)

EQUIPMENT	First	Second	Third	Third	Total/Annual
Existing Combustion Equipment	5,425	5,485	5,545	5,545	22,000
Existing Cooling Tower	1,800	1,820	1,840	1,840	7,300
New Gas Turbine	5,400	5,460	5,520	5,520	21,900
Offsets Supplied For Frame 7[(1)]	-1,677	-1,695	-1,714	-1,714	-6,800
Totals	10,948	11,070	11,191	11,191	44,400

Notes: [(1)]From April 12, 1989 District Letter to the California Energy Commission on the offset package for the BAF Energy Project (85-AFC-5A)

Calpine has proposed to fully offset the project emissions by calendar quarter as established above. The offsets are proposed to be acquired from the “State Bank” established under Executive Order D-24-01 issued by Governor Davis, or from a District generated offset program approved by the District Board based upon Mobile and Area source emissions reductions. Application of offset ratios as required by Section 4.3 of Rule 207 will be addressed in the offset package provided by the “State Bank” or the District program.. These “State Bank” or District program offsets will be utilized by the source as temporary offsets, until such time that the facility has in place a permanent offset package.

PM_{10} Net Emissions Increase Vs. Proposed PM_{10} Offsets For Project (Pounds)

Quarter	First	Second	Third	Fourth
Net Emissions Increase	10,948	11,070	11,191	11,191
Same Pollutant Offsets Provided	10,948	11,070	11,191	11,191
Fully Offset Net Emissions Increase	Yes	Yes	Yes	Yes

As shown in the above table, Calpine has proposed to fully offset the project's net emission increase.

The permit will be conditioned such that the emissions from the facility will not exceed the quarterly emission levels evaluated under this AFC, as shown in the following table. These are based upon the PTE limits established in Conditions 16 and 21 on Title V Permit TV02-04A for the existing equipment, and the PTE of the new turbine. Note that these limits do not include emissions from fuel oil operation as allowed for in the permits for the existing Frame 7 unit and the Boilers, and these limits will be increased by the incremental hourly limit for oil firing versus the natural gas hourly limit for all hours the equipment was actually operated on fuel oil, up to the 240 hour limit.

Permit Limits (Pounds)

Pollutant	NO_x	SO_x	VOC	CO	TSP/PM_{10}
First Quarter	65,392	1,748	4,762	58,445	12,625
Second Quarter	66,118	1,768	4,815	59,095	12,765
Third Quarter	66,845	1,787	4,868	59,744	12,905
Fourth Quarter	66,845	1,787	4,868	59,744	12,905
Annual Limits	265,200	7,090	19,313	237,028	51,200

VII. CONCLUSIONS

Compliance Check

200 Permits Required

Calpine King City Cogeneration, LLC has applied for and will be issued an Authority to Construct (ATC) for the installation and temporary operation of this equipment. Upon completion of initial compliance testing, a Permit to Operate (PTO) will be issued. Therefore, the facility will be in compliance with this Rule.

203 Application

Calpine King City Cogeneration, LLC supplied separate applications for each permit unit and utilized the District's permit application form as required by this Rule.

205 Provision Of Sampling And Testing Facilities

The permits will include conditions establishing sampling facilities as required by this Rule.

206 Standards For Issuing Authorities to Construct and Permits to Operate

The facility is in compliance with the requirements of this Rule with regards to ATC issuance. Prior to issuing the PTO, the District will verify that the equipment has been installed pursuant to the ATC.

207 Review Of New Or Modified Sources

The facility is in compliance with the requirements of this Rule as show in Sections V and VI above. The BACT and offset provisions of this Rule were triggered and are included in this analysis. This rule also is SIP approved for the purpose of meeting the nonattainment and prevention of significant deterioration (PSD) NSR requirements of the Clean Air Act. This rule requires that the project be public noticed prior to issuance of the permit. The permit will be conditioned such that compliance with the emission limits established by this Rule will be continually monitored.

213 Continuous Emissions Monitoring

The requirements of this Rule are applicable to this equipment identified in this application. The permit will be conditioned such that CEM will be installed, calibrated, maintained, and operated in accordance with District and EPA standards.

214 Breakdown Conditions

This is the implementing regulation in which the District has established the criteria for reporting breakdowns. The requirements imposed by this rule will be included on these permits.

218 Title V: Federal Operating Permits

The permit will be conditioned such that the facilities' Title V permit must undergo a "Major Modification" prior to combusting fuel in the new Gas Turbine. Upon completing this Title V permit issuance for this "Major Modification", the facility will be in compliance with the requirements of this Rule.

219 Title IV: Acid Deposition Control

The facility is presently not an "Affected Facility" under the Acid Rain program, and the installation of this new gas turbine will not change the facilities status as this new unit falls under the exemptions contained in 40CRF§72.7(a)(3). The facility will be exempt from the Acid Rain program except for the provisions contained in §§72.2 through 72.6 and §§72.10 through 72.13.

300 District Fees

Historically, the King City Power Plant has complied with the requirements of this Rule. The District fully expects continued compliance with the provisions of this Rule.

301 Permit Fee Schedules

Prior to District review of this application, the appropriate fees pursuant to this Rule were received from Calpine King City Cogeneration, LLC. Therefore, the facility is in compliance with this Rule.

302 Source Testing And Analyses: Fees And Requirements

Historically, the King City Power Plant has complied with the requirements of this Rule. The District fully expects continued compliance with the provisions of this Rule.

7305 Fees For Risk Assessments, Risk Notifications, & Risk Reduction Plans & Reports

Historically, the King City Power Plant has complied with the requirements of this Rule. The District fully expects continued compliance with the provisions of this Rule.

306 Asbestos Investigation Fees

Historically, the King City Power Plant has complied with the requirements of this Rule. The District fully expects continued compliance with the provisions of this Rule.

308 Title V: Federal Operating Permit Fees

This is the District's fee rule for Title V. Appropriate conditions are included on the existing Title V permit, and will be included on the revised Title V permit to ensure compliance with the fee provisions contained in this rule.

400 Visible Emissions

The equipment is natural gas fired, and therefore should easily comply with the 20% opacity standard from this Rule. Appropriate conditions will be include on the permits to ensure compliance with the requirements of this Rule.

402 Nuisances

With the equipment being fired on natural gas, nuisance type problems are not expected from this operation. However, appropriate conditions will be included on the permits to ensure compliance with the requirements of this Rule.

403 Particulate Matter

The 0.15 grains per dry standard cubic foot emission limit is applicable to the LM6000 at the facility, but this standard is superseded by the emission limitations imposed through the NSR (Rule 207) permitting process and is verified as follows. Based upon the requirements of Rule 403, the volumetric flow rate of 217,058 SDCFM for the Gas Turbine would establish an emission limit of 279.1 lbs PM_{10}/hr [(217,058 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 279.1 lbs PM_{10}/hr]. Based upon the limits

contained on this permit through this permitting process, the PM_{10} emission limit for this gas turbine is 2.5 lbs/hr, which is well below the applicable Rule 403 standards.

404 Sulfur Compound And Nitrogen Oxides

This equipment is exempt from the requirements of this Rule based upon the exemptions contained in Section 1.3. The Gas Turbine is subject to BACT limits imposed by Rule 207 and is therefore exempt from the requirements of this Rule pursuant to Section 1.3.2.

412 Sulfur Content Of Fuels

This rule which requires that the sulfur content of any gaseous fuel combusted contain 50 grains or less of sulfur per 100 cubic feet is applicable to this equipment. The sulfur content limits proposed in the application are 0.25 grains per 100 cubic feet of natural gas. This sulfur limit will be included on the permits.

415 Circumvention

The facility is in compliance with the provisions of this Rule.

421 Violations And Determination Of Compliance

This Rule provides standards for compliance determinations required by, or derived from federal law. The facility is in compliance with the requirements of this Rule.

423 New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart A –General Provisions

The facility is subject to the requirements of this part because the equipment is subject to 40 CFR Subpart GG.

The notification and record keeping, performance tests, compliance with standards and maintenance requirements, circumvention, monitoring requirements, and general notification and reporting requirement provisions contained in §§60.7, 60.8, 60.11, 60.12, 60.13, and 60.19 will be subsumed under the testing, monitoring, reporting requirements established as conditions on this permit pursuant to District requirements. This will include initial testing, annual testing, record keeping, reporting, and the requirement to monitor operations with the use of CEMs.

40 CFR Part 60, Subpart GG - Standards Of Performance For Stationary Gas Turbines

The LM6000 are subject to the requirements of this NSPS. In addition to utilizing good combustion practices and combusting only natural gas, the LM6000 will utilize water injection to limit NO_x formation, and the back-end control of SCR to limit pollutant emissions.

The allowable NO_x concentration limit derived from §60.332(a)(1) would be 75 ppmvd. This 75 ppmvd limit far exceeds the 5 ppmvd limit established by the BACT

requirements of District Rule 207. Therefore, the NO_x limit from the NSPS will be subsumed under the NSR permit requirements that will be included on the permits.

The allowable SO_2 concentration limit derived from §60.333 would be 150 ppmv. Compliance with this limit is assured due to limits established by the BACT requirements of Rule 207 and established in the permit at 0.33 lbs/hr. The SO_2 concentration at this permitted emission level would be 0.13 ppmv for the turbine [(0.33 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((272,396 SDCFM)*(60 M/Hr)) = 0.33 ppmv]. This value is well below the 150 ppmv SO_2 allowed for in the NSPS. Therefore, the SO_2 emission standard from this NSPS will be subsumed under the NSR permit requirement that will be included on the permits.

The testing and monitoring requirements contained in §§60.334 and 60.335 will be subsumed under the testing and monitoring requirements established under the NSR conditions contained on the permits. This will include the annual emissions testing requirement and the requirement to monitor operations with the use of CEMs.

424 National Emission Standards For Hazardous Air Pollutants (NESHAPS)

40 CFR Part 61, Subpart A -General Provisions
The facility is subject to the requirements of this part because the facility is subject to 40 CFR Part 61, Subpart M. Historically, the facility has been in compliance with these requirements and continued compliance is expected.

40 CFR Part 61, Subpart M - National Emission Standard For Asbestos
The facility on occasion is subject to the requirements of 61.145 - 61.147 (Standards for Demolition and Renovation). Historically, the facility has been in compliance with these requirements and continued compliance is expected.

426 Architectural Coatings

This rule is applicable to all applications of architectural coatings and limits the VOC content of these coatings. Historically, the facility has been in compliance with this Rule and continued compliance is expected.

1000 Permit Guidelines And Requirements For Sources Emitting Toxic Air Contaminants

As an addendum to their application, Calpine King City Cogeneration, LLC provided a Screening Analysis which demonstrated compliance with the *Toxic Air Contaminants (TACs)* and *Carcinogenic Toxic Air Contaminants (CTACs)* risk requirements of this rule.

However, the application did not identify *Reasonable Control Technology* (RCT) for TACs as required by the rule, nor *Best Control Technology* (BCT) for CTACs. Although RCT and BCT was not identified in the application, the use of an oxidation catalyst and the combustion of only natural gas meets the District's requirements for BCT and RCT.

Although, the potential to emit toxics from the installation of this equipment does not exceed the 25 tons per year HAP threshold which would establish the King City Power

Plant as a *Federal §112(g) Source*. Although the facility is not a *Federal §112(g) Source*, the only additional requirement imposed by Rule 1000 on a facility identified as a *Federal §112(g) Source* is that the project must be public noticed prior to the permit being issued. Even though this source is not subject to the public noticing requirement imposed by Rule 1000, the facilities permit is being public noticed pursuant to the requirements of Rule 207.

1003 Air Toxics Emissions Inventory And Risk Assessments

Historically, the King City Power Plant has complied with the requirements of this Rule. The District fully expects continued compliance with the provisions of this Rule.

Conclusions

This equipment as proposed has the capability of complying with all applicable rules of the District.

VIII. RECOMMENDATION

Issue a Determination of Compliance for this project to the California Energy Commission. The CEC's order should contain the following conditions to verify compliance with District Rules and Regulations:

Conditions Prior to Combusting Fuel:

1. Calpine King City Cogeneration, LLC shall submit all design criteria and specifications on the gas turbine generator, the SCR system, the ammonia injection system, the oxidation catalyst, and the CEM systems, and receive District approval prior to installation.

2. Pursuant to the requirements of District Rule 218, Calpine King City Cogeneration, LLC shall apply for and receive a revised Title V permit for the King City Power Plant prior to combusting fuel in the LM6000.

3. District-approved continuous emission monitors shall be installed, calibrated, and operational prior to first firing the LM6000. After commissioning of the LM6000, the detection range of these continuous emission monitors shall be adjusted as necessary to accurately measure the normal range of CO and NOx emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval.

4. Calpine King City Cogeneration, LLC shall submit a plan to the District at least 30 days prior to the first firing of the LM6000. This plan shall describe the procedures to be followed during the commissioning of the LM6000. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the tuning of the combustor, the installation and operation of the SCR system, the installation of the oxidation catalyst and the installation, calibration, and testing of the CO and NOx continuous emission monitors, and any

activities requiring the firing of the LM6000 without abatement by SCR and Oxidation Catalyst.

5. No later than seven (7) days prior to combusting fuel in the LM6000, Calpine King City Cogeneration, LLC shall notify the District and arrange for an inspection of the equipment.

6. Calpine King City Cogeneration, LLC shall surrender the offsets identified in this evaluation prior to combusting fuel in the LM6000.

Turbine Commissioning Conditions:

7. Calpine King City Cogeneration, LLC shall minimize emissions from the LM6000 to the maximum extent possible during the commissioning period.

8. At the earliest feasible opportunity in accordance with the recommendation of the equipment manufacturers, the combustors of the LM6000 shall be tuned to minimize emissions.

9. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers, the SCR Systems shall be installed, adjusted, and operated to minimize the emissions of nitrogen oxides and ammonia from the LM6000.

10. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers, the Oxidation Catalyst shall be installed and operated to minimize the emissions of carbon monoxide from the LM6000.

11. The total number of firing hours of the LM6000 without abatement of nitrogen oxide emissions by the SCR System shall not exceed 100 hours during the commissioning period. Such operation of the LM6000 without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR and Oxidation Catalyst in place. Upon completion of these activities, Calpine King City Cogeneration, LLC shall provide written notice to the District and the unused balance of the 100 firing hours without abatement will expire.

12. The total mass emissions of nitrogen oxides, carbon monoxide, volatile organic compounds, PM10, and sulfur dioxide that are emitted from the LM6000 during the commissioning period shall accrue towards the quarterly and annual emission limits specified in Condition 27.

13. At the end of the commissioning period, Calpine King City Cogeneration, LLC shall conduct a District and CEM approved source test to determine compliance with Condition 18 (start-up limits), and the written test results of the performance tests shall be provided to the District and the CEM within thirty (30) days after the testing. The source test shall determine NOx, CO, and VOC emissions during start-up of the LM6000. The source test for the LM6000 shall include a minimum

of three start-up and shutdown periods. A complete test protocol shall be submitted to the District no later than thirty (30) days prior to testing, and notification to the District at least ten (10) days prior to the actual date of testing shall be provided so that a District observer may be present. Changes to the test date made subsequent to the initial ten day notification may be communicated by telephone or other acceptable means no less than forty-eight (48) hours prior to the new test date.

LM6000 Conditions:

14. The heat input rate to the LM6000 shall not exceed 467.6 MMBtu/hr and the unit shall only be fired on natural gas.

15. The maximum daily combined emissions from the LM6000, including start-ups and shutdowns, shall not exceed the following limits:

Pollutant	Lbs/Day
Oxides of Nitrogen (NO_x)	233.95
Carbon Monoxide (CO)	172.13
Particulate Matter <10 microns (PM_{10})	60.00
Volatile Organic Compounds (VOC)	28.80
Ammonia (NH_3)	150.48
Sulfur Dioxide (SO_2)	7.92

16. The pollutant mass emission rates in the exhaust discharged to the atmosphere from the LM6000 shall not exceed the following limits:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	8.65	207.6
Carbon Monoxide (CO)	6.31	151.4
Particulate Matter <10 microns (PM_{10})	2.50	60.0
Volatile Organic Compounds (VOC)	1.20	28.8
Ammonia (NH_3)	6.27	150.5
Sulfur Dioxide (SO_2)	0.33	7.9

17. These limits shall not apply during start-up, which is not to exceed one (1) hour. SCR catalytic controls and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

18. The pollutant concentrations discharged to the atmosphere from the LM6000 shall not exceed the following limits, calculated at 15 percent O2 on a one-hour rolling average unless otherwise noted:

Pollutant	Concentration (ppm)
Oxides of Nitrogen (as NO_2)	5.0
Carbon Monoxide (CO)	6.0
Ammonia (NH_3)	10.0
(3-60 minute averages)	

19. These limits shall not apply during start-up, which is not to exceed one (1) hour, or shutdown. SCR catalytic controls and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

20. The pollutant emission rates discharged to atmosphere from the LM6000 during a start-up shall not exceed the following limits. These limits apply to any start-up period which shall not exceed one (1) hour.

Pollutant	Lbs/Start-Up
Oxides of Nitrogen (as NO_2)	35.00
Carbon Monoxide (CO)	27.00
Volatile Organic Compounds (as CH_4)	1.20

21. CEMs shall be installed and operated on the LM6000. This system shall be designed to continuously record the measured gaseous concentrations, and calculate and continuously monitor and record the CO, CO2 or O2, and NOx concentrations corrected to fifteen (15) percent oxygen (O2) on a dry basis.

22. The equipment installed for the continuous monitoring of CO shall be maintained and operated in accordance with 40 CFR Part 60 Appendix F, and the equipment installed for the continuous monitoring of CO2 or O2 and NOx shall be maintained and operated in accordance with 40 CFR Part 51, Appendix P and 40 CFR Part 60, Appendix B.

23. For periods of missing CO data, CO hourly values shall be substituted from valid hourly average data from the previous thirty (30) unit operating days, excluding periods of startup and shutdown. The CO data shall be substituted based on equivalent incremental load ranges.

24. Within sixty (60) days after the commissioning of the LM6000, a Relative Accuracy Test Audit (RATA) must be performed on the CEMS in accordance with 40 CFR Part 60 Appendix B Performance Specifications and a performance test shall be performed, and the written test results of the performance tests shall be provided to the District within thirty (30) days after testing. A complete test protocol shall be submitted to the District no later than thirty (30) days prior to testing, and notification to the District at least ten (10) days prior to the actual date of testing shall be provided so that a District observer may be present. Changes to the test date made subsequent to the initial ten day notification may be communicated by telephone or other acceptable means no less than forty-eight (48) hours prior to the new test date.

25. The performance tests shall include those parameters specified in the approved test protocol, and shall at a minimum include the following:
    a. Oxides of Nitrogen (as NO_2): ppmv dry at 15% O_2 and lbm/hr.
    b. Carbon Monoxide: ppmv dry at 15% O_2 and lbm/hr.
    c. Volatile Organic Compounds (as CH_4): ppmv dry at 15% O_2 and lbm/hr.
    d. Ammonia (NH_3): ppmv dry at 15% O_2 and lbm/hr

and the following process parameters:

e. Natural gas consumption.

f. Turbine load in megawatts.

g. Stack gas flow rate (SDCFM) calculated according to procedures in EPA method 19, and % CO2.

26. The LM6000 shall be abated by a properly operated and maintained Selective Catalytic Reduction System and Oxidation Catalyst.

27. Calpine King City Cogeneration, LLC shall demonstrate compliance by using properly operated and maintained continuous emission monitors (during all hours of operation including equipment Start-up and Shutdown periods, except for periods of CEM maintenance performed in accordance with District requirements) for all of the following parameters:

a. Firing hours and Fuel Flow Rates.

b. Oxygen (O2) Concentrations, Nitrogen Oxide (NOx) Concentrations, and Carbon Monoxide (CO) Concentrations.

c. -Ammonia Injection Rates.

28. Calpine King City Cogeneration, LLC shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, Calpine King City Cogeneration, LLC shall calculate and record the total Firing Hours, the average hourly Fuel Flow Rates, and pollutant emission concentrations.

29. Calpine King City Cogeneration, LLC shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

d. Heat Input Rate.

e. Corrected NOx concentrations, NOx mass emissions (as NO2), corrected CO concentrations, and CO mass emissions.

30. For each source, Calpine King City Cogeneration, LLC shall record the parameters specified in d. and e. of this Condition every 15 minutes (excluding normal calibration periods). As specified below, Calpine King City Cogeneration, LLC shall calculate and record the following data:

f. Total Heat Input Rate for every clock hour.

g. The NOx mass emissions (as NO2), and corrected average NOx emission concentration for every clock hour.

h. The CO mass emissions, and corrected average CO emission concentration for every rolling one-hour period.

i. On an hourly basis, the cumulative total NOx mass emission (as NO2) and the cumulative total CO mass emissions.

j. For each calendar day, the cumulative total NOx mass emission (as NO2) and the cumulative total CO mass emissions.

k. For each calendar quarter, the cumulative total NOx mass emission (as NO2) and the cumulative total CO mass emissions.

l. For each calendar year, the cumulative total NOx mass emission (as NO2) and the cumulative total CO mass emissions.

31. Instrumentation must be operated to measure the SCR catalyst inlet temperature and pressure differential across the SCR catalyst.

32. Calpine King City Cogeneration, LLC shall cause semi-annual testing to be performed to verify compliance with the Ammonia (NH3) slip limit. Calpine King City Cogeneration, LLC shall conduct this testing in accordance with the collection method specified in BAAQMD Source Test Procedure ST-1B and the analysis specified in EPA method 350.3.

33. Annual performance tests shall be conducted in accordance with the Monterey Bay Unified Air Pollution Control District test procedures prior to January 1 of each year, and the written results of the performance tests shall be provided to the District within thirty (30) days after testing. A testing protocol shall be submitted to the District no later than thirty (30) days prior to the testing, and notification to the District at least ten (10) days prior to the actual date of testing shall be provided so that a District observer may be present. Changes to the test date made subsequent to the initial ten day notification may be communicated by telephone or other acceptable means no less than forty-eight (48) hours prior to the new test date.

General Conditions:

34. Daily NOx emissions from all combustion equipment at the facility shall not exceed 1,070 pounds per day.

35. Cumulative emissions, including emissions generated during Start-ups and Shutdowns, from all equipment at the King City Power Plant shall not exceed the following quarterly and annual limits:

Pollutant	Pounds Of Emissions				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Annual
NO_x (as NO_2)	65,392	66,118	66,845	66,845	265,200
SO_x	1,748	1,768	1,787	1,787	7,090
VOC	4,762	4,815	4,868	4,868	19,313
PM_{10}	12,625	12,765	12,905	12,905	51,200
CO	58,445	59,095	59,744	59,744	237,028

Note: During periods of oil firing as allowed for on the permits for the Frame 7 Unit and the Boilers, the allowable emissions are increased by the incremental hourly limit for oil firing versus the natural gas hourly limit for all hours the equipment was actually operated on fuel oil.

36. Calpine King City Cogeneration, LLC shall calculate and record on a daily basis, the Volatile Organic Compound (VOC) mass emissions, Fine Particulate Matter (PM10) mass emissions, Sulfur Dioxide (SO2) mass emissions, and Ammonia (NH3) mass emissions from each combustion source and the cooling tower. Calpine King City Cogeneration, LLC shall use the actual heat input rates, actual Start-up times, actual Shutdown times, and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented as follows:

    a. For each calendar day, VOC, PM_{10}, SO_2, and NH_3 mass emissions shall be summarized for each source.

    b. On a daily basis, the cumulative total VOC, PM_{10}, SO_2 and NH_3 mass emissions shall be summarized for each calendar quarter and for the calendar year.

37. Calpine King City Cogeneration, LLC shall submit to the Air Pollution Control District a written report each month which shall include:

    a. time intervals, date, and magnitude of excess emissions;

    b. nature and cause of the excess emission, and corrective actions taken;

    c. time and date of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; and

    d. a negative declaration when no excess emissions occurred.

38. Calpine King City Cogeneration, LLC shall report all breakdowns which results in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within 1 hour of the occurrence, this one hour period may be extended up to six hours for good cause by the APCO. The APCO may elect to take no enforcement action if Calpine King City Cogeneration, LLC demonstrates to the APCO's satisfaction that a breakdown condition exists.

39. The estimated time for repair of the breakdown shall be supplied to the APCO within 24 hours of the occurrence and a written report shall be supplied to the APCO with 5 days after the occurrence has been corrected. This report shall include at a minimum:

    a. a statement that the condition or failure has been corrected and the date of correction; and

    b. a description of the reasons for the occurrence; and

    c. a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and

    d. an estimate of the emissions caused by the condition or failure.

40. Calpine King City Cogeneration, LLC shall provide adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack sampling ports shall be subject to District review and approval.

41. No emissions shall constitute a public nuisance.

42. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity.

43. Any representative of the Monterey Bay Unified Air Pollution Control District authorized by the Air Pollution Control Officer shall be permitted, pursuant to the authority contained in Section 41510 of the California Health and Safety Code:

    a. to enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of the Authority to Construct;

    b. to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct;

    c. to inspect any equipment, operation, or process described or required in this Authority to Construct; and,

    d. to sample emissions from the source.