

CALIFORNIA ENERGY COMMISSION

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CALPEAK ENTERPRISE #7 ESCONDIDO (01-EP-10) STAFF ASSESSMENT FOR EMERGENCY PERMIT

EXECUTIVE SUMMARY

The Energy Commission staff has performed a fatal flaw analysis of CalPeak Enterprise #7 Escondido 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 May 8, 2001 CalPeak Energy LLC (CalPeak) filed an emergency permitting application for the Enterprise #7 Escondido project. CalPeak submitted supplemental application information on May 15, 2001. The CalPeak application was deemed complete on May 16, 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/escondido>.

CalPeak proposes to construct a 49.5 megawatt (MW) natural gas fired simple-cycle peaking facility using Pratt & Whitney FT-8 Twin Pac turbines. The facility will be located on a 2.95 acre pad, which is being purchased by CalPeak. The pad is located south and west of the terminus of North Enterprise Road, within the city of Escondido.

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/Escondido/documents>.

New linear facilities will be required for electrical and gas connections. The proposed facility will connect to the San Diego Gas & Electric (SDG&E) Escondido substation via 1,200 feet of new 69kV transmission line. 200 feet will be new line and poles extending to the existing SDG&E right of way. An additional 1,000 feet, adding a second circuit, will be added to the existing poles. If needed, the existing poles will be replaced.

Natural gas will be supplied to the facility through a six inch diameter interconnection, 50 feet to a gas main currently under construction by SDG&E within the Enterprise

Street road bed. Though CalPeak is paying for this, it is being constructed under an existing Franchise Agreement between SDG&E and the City of Escondido.

Water for the facility will be provided through a city water supply already on the site and will be demineralized for use. Water consumption, for evaporative cooling of the turbines during peak summer temperatures, will be 10 gallons per minute. Any return water will be filtered for re-use. No discharge of water is expected, and all water collected on site will go to storage for removal and off-site treatment by a contractor.

The CalPeak Escondido project will employ selective catalytic reduction (SCR) to reduce project emissions. Utilizing aqueous ammonia in a 19.5 percent solution in the SCR, and clean natural gas fuel are projected to keep the NOx emissions at 2 ppm annual average of hours operated, and 2.5ppm for each 24 hour period.

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 (Bridger and Helfand 1968) (Schickele 1947) (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 NO_x/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 NO_x/MWhr, but few are cleaner than the system NO_x 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 NO_x/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 NO_x emissions are simply a product of the emission rate multiplied by 10,000. Diesel standby engine use would result in 150 tons of NO_x 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 2.5 ppm Pratt & Whitney Twin-Pak equipped with emission controls proposed for this Escondido project, would produce 0.5 tons of NO_x 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 2.5 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. The CalPeak Enterprise #7 Escondido Project, with expected emissions on an annualized basis of 2ppm NOx, is not expected to need ERC's.

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 CALPEAK ENTERPRISE #7 ESCONDIDO PROJECT

AIR QUALITY

The analysis of the air quality impacts of this emergency permit application was 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 (ATC) issued by the San Diego Air Pollution Control District (SDAPCD).

The applicant submitted an application for ATC to the SDAPCD on February 3, 2001. A Draft ATC was issued by the District on March 16, 2001. A 30 day review and comment period ended April 16, 2001, and a determination by the California Energy Commission to approve the Application For Certification (AFC) would allow the SDAPCD to issue the Authority To Construct.

Appendix A contains the results and analysis of the San Diego Air Pollution Control District studies pertinent to the CalPeak Enterprise #7 Escondido Application For Certification (AFC).

The City of Escondido and some members of the public expressed concern that the applicant and the District failed to adequately consider a number of factors including the cumulative air quality impacts of the power plant facilities currently operating, being constructed and in the application process. Review of the memos and studies in Appendix A indicates that, to the extent possible, these impacts were modeled in the assessment of this project.

Another concern of the City was the use of Mirimar Naval Air Station meteorologic data for the analysis rather than data collected at an Escondido site. Again, review of the memos and studies in Appendix A will indicate that to the extent possible, modeling was done using this data. There are specific reasons why the Mirimar data is used in the comparative modeling analysis including the greater range of information available from that site, and the proven effectiveness in modeling impacts in inland and desert environments within San Diego County.

In discussions with the staff at the District, and verified in the data analysis and memos presented in Appendix A, the CalPeak Enterprise #7 Escondido proposed project, operating the FT-8 Pratt & Whitney Twin-pak gas-fired turbines, with selective catalytic reduction (SCR), is an extremely low NO_x emitting facility. The allowable emission standard is 5ppm NO_x. The projected annualized average for the CalPeak Enterprise #7 project is projected to be 2ppm, with a 24 hour rolling average not exceeding 2.5 ppm.

BIOLOGICAL RESOURCES

CalPeak Power, LLC has submitted plans to build a peaker power plant at the southern terminus of Enterprise Road in Escondido, San Diego County, California. The proposed project site has been graded within the last ten years and is characterized by barren soil, weedy plant species, and non-native grasses. The 1.65-acre construction laydown area to the southwest of the site is located in an abandoned orchard. The orchard is currently composed of dead fruit trees with an under-story of non-native grasses and invasive weedy species (Taylor, 2001). The project facility's western property boundary is adjacent to an existing SDG&E transmission line easement. Two hundred feet of overhead line will be necessary to connect the peaker facility with the SDG&E alignment. The SDG&E easement consists of non-native grassland and a small patch of coastal sage scrub.

No riparian or wetland habitat exists onsite. However, several patches of Diegan coastal sage scrub (DCSS) and non-native grassland (NNG) were observed at the proposed facility location. DCSS is an important habitat for a number of sensitive species including the Federally listed as threatened coastal California gnatcatcher. Located onsite is a steep (approximately 1:1) artificially constructed slope containing disturbed DCSS. In addition, a small section of DCSS also exists to the west of the project site within the SDG&E transmission corridor easement. As part of CalPeak's project description, the steep slope area of DCSS will be fenced and monitored by construction supervisors to ensure that no take of habitat occurs. The DCSS located within the SDG&E easement is not located within the proposed construction zone and will not be impacted by CalPeak during construction of the proposed facility. However, installation of the overhead line will require careful monitoring of construction activities to prevent impact to coastal sage scrub located adjacent to the power poles.

US Fish & Wildlife Service (USFWS) and the California Department of Fish & Game (CDFG) biologists recommend that DCSS be flagged for avoidance by a biologist prior to construction. In addition a biological monitor shall be present on-site during construction. At the completion of construction a review will be performed by an approved biologist to determine any potential impacts to DCSS habitat (Gilbert, 2001).

Non-native grassland habitat (NNG) occurs along the project's southern boundary and within the SDG&E easement. It also located within the fallow orchard to the south of the site, within a City-designated agricultural area. NNG habitat on the project site is characterized as sparse to densely covered non-native annual grassland. This habitat type is known to provide foraging habitat for raptors and other wildlife, and typically requires mitigation for its loss. Impacts to NNG will include plans to remove vegetation, topsoil and gravel within the laydown area for parking and staging of equipment. During post-construction activities, the gravel will be removed and the stockpiled topsoil will be replaced and reseeded. The CEC will only require the applicant to submit, for approval to the CPM, a restoration plan for the construction laydown area.

On January 4 and January 13 and on May 20, 2001 Scott Taylor of Helix Environmental Planning (Helix) conducted site visits to map vegetation communities and inventory

plant and animal species at the proposed facility site. During these surveys no sensitive plant species were observed.

Four sensitive plant species were deemed by Helix as likely to occur onsite according to their known distribution and habitat and database search conducted by Helix. These included the following four species; White coast ceanothus (*Ceanothus verrucosus*), Encinitas baccharis (*Baccharis vanessae*), 3) Summer holly (*Comarostaphylis diversifolia* spp. *Diversifolia*) and Variegated dudleya (*Dudleya variegata*). The first three of the species were listed by Helix as “Not expected; would have been observed if present”. *Dudleya variegata* was listed as “Soils onsite are expected to virtually preclude this plant.” A separate database search conducted by CEC staff utilizing the CNDDDB noted nine additional sensitive species located within the Escondido 7.5 minute Quad including six species commonly found in coastal sage scrub habitat. None of these species, however, were observed by Helix during the rare plant surveys.

A total of nineteen sensitive wildlife species were evaluated by Helix for their potential to occur onsite. A list of these species can be found as Table 2 of Appendix K (CalPeak Power, llc, 2001). Four of the species listed were considered to have a moderate potential for occurrence on the site. These include the Coronado Island Skink (*Eumeces skiltonianus unterparietalis*, FSC, CSC), the coastal rosy boa (*Lichanura trivirata roseofusca*, FSC), the California horned lark (*Eremophila alpestris actia*, CSC), and the southern grasshopper mouse (*Onychomys torridus ramona*, FSC, CSC). The Helix Environmental Biologist states “the impact would not be expected to be significant due to the relatively low sensitivity of potentially occurring species and the low habitat quality.” (CalPeak Power, LLC, 2001)

CDFG and USFWS biologists have expressed concern that the surveys conducted by the applicant are not sufficient to detect coastal California gnatcatcher (Mayer, May 17, 2001). CEC staff consulted with Kathleen Brubaker of the USFWS who observed gnatcatchers as occurring on or in very close proximity to the project site during a past visit. The gnatcatchers were seen foraging in an inactive orchard area as well as areas dominated by non-native plant species. At the request of the CEC staff, Scott Taylor undertook another survey May 20, 2001 and reported no observations of sensitive species onsite (Taylor, May 23, 2001)

Energy Commission Biological Staff and resource agency personnel are concerned with the potential for nesting Northern harriers (*Circus cyaneus*) on or adjacent to the site. This species is often found nesting, foraging, and roosting in marshes and grasslands from April to September. The Biological Technical Report prepared by Helix reports the potential for harriers to occur as “low; would have been observed if present.” (CalPeak Power, LLC, 2001) Northern harriers, however, migrate annually and change nest location from year to year. It is possible that harriers may have migrated into the area after the January surveys. A search of the CNDDDB has turned up records of nesting harriers north of Escondido at the southern edge of Camp Pendleton approximately 15 miles from the project (California Department of Fish & Game, 2000). A search of the Breeding Bird Survey Database also revealed nesting harriers within southern San Diego County. (Patuxent Wildlife Research Center, 2001)

The applicant has proposed no specific mitigation with regards to any sensitive plant and wildlife species. The USFWS and CDFG, however, have requested that protocol gnatcatcher surveys be completed prior to site mobilization by an authorized gnatcatcher biologist. This is due to nearby recorded observations of gnatcatchers within the Quail Hills area during previous surveys. (BIO 7) The Staff also recommends surveys for northern harriers and raptors at the project site and the surrounding habitat within a ½ mile radius of the project boundary. (BIO 8) Survey methodologies will allow for a thorough search of these areas to identify potential arboreal and/or ground nesting raptor species.

The City of Escondido has requested, per the Tree Preservation Ordinance that a protected tree (any oak which has a ten inch or greater DBH) which is removed, shall be replaced at a minimum 2:1 ratio with minimum 24"-box sized trees (Brindle, 2001). Any significant tree removed from the project site will be addressed in the facilities landscape plan to be approved by the CPM.

The Applicant has proposed to protect DCSS onsite through exclusion and monitoring. Staff and the City also recommend fencing DCSS within the SDG&E easement to avoid any accidental take of habitat. The USFWS/CDFG are requiring the presence of a biological monitor during construction to flag and monitor DCSS habitat. The biological monitor will also perform a review at the end of construction to determine impacts to DCSS habitat on site. (BIO 9) If DCSS habitat is impacted, the Applicant will submit a mitigation compensation plan, using the USFWS/CDFG recommended ratio of 2:1, to the CPM for approval. (BIO 10). Impacts to this habitat, however, are not expected. Although the City has standards for landscaping manufactured slopes over three feet (Article 62, Landscape Standards, Section 1327(Slope Planting) of the Zoning Code) John Brindle, City of Escondido Assistant Planning Director, has requested that this not include the DCSS steep slope so as to avoid any take of habitat (Brindle, May 22, 2001).

The Applicant has not proposed any mitigation for the loss of NNG. The City has requested a mitigation ratio of 0.5:1 if NNG habitat is lost. The Applicant will submit a restoration plan, for approval, to the CPM for all impacts incurred during use of the construction laydown area, which is currently being classified as agricultural by the City. (BIO 11) Any other impacts to designated NNG will require the Applicant to develop a mitigation compensation plan, to be approved by the CPM. (BIO 10)

SOILS AND WATER

WATER

WATER SUPPLY

The Applicant will augment the peak power of the FT8 Pratt & Whitney Twin Pac gas turbine engine by using evaporative cooling. Two inlet jets will use a combined 10

gallons per minute (gpm) of water provided by the Rincon Del Diablo Municipal Water District through a City of Escondido water system interconnection already located onsite. Water will be filtered via an on-site rental system before being used in the evaporative cooling process.

WASTEWATER

There will be no wastewater discharge and any excess wastewater from plant processes will be collected and passed back through the filtration system. Onsite drains will be routed to an oily water separator. The oil collected from this process will be hauled offsite and properly disposed of at an appropriate facility. Water from the oily water separator and washwater from equipment washdown will be collected and pumped to storage. Disposal of any wastewater will be by tank truck collection for offsite treatment. Stormwater will be directed to existing storm drains on Enterprise Road. The facility will generally be unmanned and will therefore be serviced by a chemical toilet. This toilet waste will be removed periodically and will be properly disposed of offsite. To ensure the appropriate disposal of all wastewater Staff has developed condition **Soil & Water 5**.

SPILL PREVENTION/ WATER QUALITY PROTECTION PLANS

The Hazardous Materials section details the types and quantities of all hazardous materials to be kept onsite. The aboveground storage quantity of oil and in process oil, exceeds the 1,320 gallons threshold. Thus, a Spill Prevention Control and Countermeasures Plan will be prepared and implemented prior to oil being stored onsite in excess of threshold levels.

Also stored onsite will be a 19.5 percent aqueous ammonia solution for use in the Selective Catalytic Reduction system. This will be covered under the California Accidental Release Program (CalARP).

All of these hazardous materials will be stored in closed containers in areas with secondary containment to prevent any water contamination.

GENERAL NPDES FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

The construction site and laydown area will be confined to less than 5 acres; therefore an NPDES permit typically would not be required. However, through the California Regional Water Quality Board, San Diego Region, Order No. 2001-01 (Order), as of February 21, 2001, each municipality listed in the Order as a Co-permittee must develop local permits, plans, and ordinances, such that they (a) prohibit the discharge of pollutants and non-storm water into the MS4; and (b) require the routine use of Best Management Plans (BMP) to reduce pollutants in site runoff. Due to the recent passing of this Order, the City of Escondido (City) has yet to revise their ordinances and develop plans to comply with this directive. In order to meet the conditions of the Order the City

is requesting that the Applicant obtain a "General Construction Activity Storm Water Permit from the State Water Resources Board for all storm water discharges associated with a construction activity". (Brindle, 2001) In order to aid the City in complying with the Order Staff is requiring **Soil & Water Condition 6**.

GENERAL NPDES FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

After speaking with John Phillips (Personal Communication, May 17, 2001) of the San Diego Regional Water Quality Control Board, it was determined that the CalPeak Enterprise #7 peaker power plant is not required to obtain an NPDES for operations. Mr. Phillips, however, highly recommends obtaining the NPDES permit to avoid any potential problems associated with contamination of stormwater runoff. Also, the City of Escondido, through the above mentioned Order (No. 2001-01), will require that during industrial activities storm water pollutants and non-storm water be controlled to the Maximum Extent Practicable (MEP) (California Regional Water Quality Control Board, San Diego Region, 2001). The City is hoping to have its ordinances revised and plans developed before the CalPeak Enterprise #7 plant is online, therefore, the Applicant must contact the City before operations to determine compliance measures for runoff during industrial activity.

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. The City of Escondido has requested that a site grading and erosion control plan be approved by the Engineering Department prior to the issuance of building permits. Within the grading plan, the City has also requested the submittal of a soils and geotechnical report. The CEC, as sole permitting authority, will approve all grading and erosion control plans through the Chief Building Officer and the Compliance Project Manager (CPM). An Erosion and Sediment Control plan will be developed by the Applicant and submitted to the CPM for approval prior to site mobilization. (SOIL & WATER-2)

HAZARDOUS MATERIALS MANAGEMENT

The proposed project may involve use of aqueous ammonia and will involve use of natural gas. Ammonia will be used for control of NOx emission in an SCR system. The proposed project will utilize 19.5% aqueous ammonia solution that has a very low vapor pressure. The use of aqueous ammonia precludes any potential for significant impact at the nearest residences which more than about 1200 feet from the proposed project. There are light industrial/commercial properties located adjacent to the proposed facility. It is staff's belief that the probability of serious impacts associated with an accidental release is insignificant at these adjacent properties.

Natural gas will not be stored at the site but will be handled in significant quantities. However, the systems used to handle natural gas at the facility will comply with all applicable engineering design codes and fire protection codes. It is staff's opinion that compliance with applicable standards will virtually preclude the potential for impact on the public as a result of natural gas handling associated with the proposed facility.

The proposed project will also utilize a natural gas pipeline that has been installed by SDG & E. The natural gas pipeline will be designed and operated in compliance with all applicable codes. It is staff's opinion that compliance with such codes will reduce the risk of public impact resulting from accidental release to insignificant levels.

All Standard Conditions regarding hazardous materials handling shall be imposed for this project.

CULTURAL RESOURCES

CalPeak is proposing to construct a 49.5MW Peaker on a 2.95-acre parcel located at the southernmost end of Enterprise Street, south of Vineyard Avenue. The proposed site is on the northeast corner of a vacant lot characterized by rolling hills, abandoned orchards and coastal sage scrub. In addition to the development of the 2.95-acre parcel, the proposed project Area of Potential Effects (APE) will include a 1500-foot natural gas line which will run down Enterprise Street to Mission Avenue, a 200-foot transmission line extending west from the site, and one construction lay down area to the south.

The 1500-foot natural gas line is currently under construction by San Diego Gas and Electric (SDG&E) to service this proposed Peaker plant and a planned industrial park adjacent to the project site, included as part of the cities General Plan and subject of a city Specific Plan. This construction is proceeding under a Franchise Agreement between SDG&E and the city of Escondido. As a result of this agreement, the construction of this line is not under California Energy Commission (CEC) authority.

The project site, lay down area, and 200-foot transmission line have been subject to an archaeological pedestrian survey carried out by Kyle Consulting in March 2001. Results of this survey yielded one isolate Mano which was determined to be out of context and therefore not of great archaeological significance. An additional archaeological survey was conducted on May 14, 2001 during a site visit conducted by CEC cultural resource staff. No other cultural remains were observed during this survey.

Kyle Consulting also completed a literature review and record search documenting all cultural resources within a one-mile radius of the project site. The one-mile radius was sufficient to include the project site, transmission line, laydown area, and natural gas line. Information was obtained from the South Coast Information Center and the San Diego Museum of Man. Results yielded the presence of two historic structures and nine pre-historic deposits. Despite the close proximity of these resources, they are outside

of the project APE; consequently this project will not result in any adverse affects to these resources.

Due to the lack of any significant cultural resources within the project APE it is the assessment of the CEC staff that no cultural resources will be adversely effected by any construction approved for this Peaker. For that reason, standard condition for certification **CUL-1** shall apply to any construction associated with this project.

PALEONTOLOGICAL RESOURCES

The proposed 2.95-acre project site is located in an area defined by rolling hills (9-15 percent grade), underlain by granitic rocks. The total Area of Potential Effects (APE) will include the project site, a construction lay down area, and a 200-foot overhead transmission line.

The proposed project will result in heavy disturbance to the soil mantle on the project site. The site pad has been previously cut down to a maximum of approximately 20-feet. The applicant has proposed the installation of reinforced mat foundations for equipment, which will be 1-4 feet deep. The proposal also includes the installation of a control room basement, which will be 11.5-feet deep. The transmission line and lay down areas, however, are not expected to greatly impact the soil mantle.

No paleontologic field survey has been conducted for the APE associated with this project.

CEC staff conducted an independent review of geologic mapping available for the neighborhood of the site. Of the available published geologic maps, neither the map of Merriam (1954), nor the map of Kennedy and Peterson (1975), cover the area of the site. A third geologic map (ERC, 1989), published in the Draft General Plan of the City of Escondido, was submitted for review by the Applicant. This map shows that the site would be developed at a place where granitic rocks, which have null paleontologic potential, are in contact with Jurassic or Triassic marine sedimentary or metasedimentary rocks in which fossils are rare, but potentially significant.

CEC staff has also inspected the aerial photograph of the proposed project site provided by the Applicant. This photograph shows that the site is at the base of a graded cut slope, on either a cut pad (in which case the soil mantle has been removed) or an artificial-fill pad (in which case the underlying soils have null paleontologic potential). On May 14, 2001 CEC staff performed a site visit, and upon inspection, concluded that the pad was most likely underlain by artificial-fill.

Based on the geology of the area, and on the aerial photograph inspected, CEC staff concludes that the project is not likely to impact paleontologic resources. Compliance with standard condition of certification **Paleo-1** shall ensure that no paleontologic resources will be adversely impacted form any construction approved with this project.

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

SITE DESCRIPTION

The 2.95-acre project site is located on the west side of the south end of North Enterprise Street in the City of Escondido, San Diego County. No street address has yet been assigned. The assessor's parcel number is 232-410-45. Access to the project site will be from North Enterprise Street.

CalPeak and the site owner have both signed a project site purchase agreement. The applicant is working on obtaining, but does not yet have, site control.

The project area is hilly with 9-15 percent slopes, and the site is approximately thirty feet in elevation higher than the surrounding property to the north and east. The area to the west of the site is level in relation to the project site and increases in elevation to the west near the western edge of the power line easement. A small hill rises above the project site to the south.

The project site is vacant and has been graded to create a flat pad. The site drains from south to north. A graded slope has been created on the southern and northern ends of the property. An existing electrical transmission line and easement is located adjacent to the western project boundary.

The project site is in an industrial area and the surrounding area is planned for industrial uses. The adjacent areas to the north and east of the site have been developed with industrial uses. The area to the south and west of the project site is undeveloped and is, according to a proposed specific plan, to be developed with industrial uses.

The 1.6-acre equipment lay down area will be located on and adjacent to the southern property line of the project site. The lay down area will be on an area that is occupied by an orchard that is no longer being maintained. Access to the lay down area will be via North Enterprise Road near the project entryway.

Linear facilities associated with the project include construction of a natural gas line lateral, connecting to a gas line that is currently being constructed in the North Enterprise Road right-of-way adjacent to the project site. The extension will be approximately 480 feet long from the onsite gas meter to the project entryway and approximately 50 feet long in the North Enterprise Road right-of-way. The gas line that is currently being constructed is planned to serve the proposed Sempra 500 MW power plant adjacent to and south of the project site.

The electrical transmission connection will consist of a 200-foot overhead line running west from the site to an existing three-wire line in the adjacent transmission corridor. These additional wires may require new poles that may need to be constructed in the

transmission right-of-way from the site to San Diego Gas and Electric's Escondido substation, approximately 1,000 feet from the project site.

NOISE

The existing noise sources in the vicinity of the project are primarily from traffic on Vineyard Avenue, Highway 78, and Mission Road. The adjacent industrial uses also elevate noise levels on the project site. A long-term ambient noise measurement was conducted at the southern property line of the nearest residence, located at the end of the cul-de-sac on the east side of Ross Drive. The hourly average noise level at the Ross Drive residence ranged between 44 and 53 dB leq, while nighttime background noise levels drop to 41 dBA L₉₀.

The City of Escondido Noise Ordinance Section 17-229 provides maximum one hour average sound level of 70 dB at the project boundary for industrial park zones at anytime during the day. If the noise source is continuous, the Leq for any hour will be represented by any lesser time period. For noise sources with a whine, screech, or hum, the noise limit shall be reduced by 10 dB or to the ambient level when the noise is not occurring. The City of Escondido Noise Ordinance noise standard at a residential property line is 45 dB. The San Diego County noise standards are essentially identical to the City of Escondido noise standards.

The nearest residential use is approximately 1200 feet to the northwest of the facility on Ross Drive. The City ordinance limits noise levels over a 24-hour period to 45 dB at residential properties. The Ross Drive residential area is in an unincorporated area of San Diego County, therefore, is subject to County Noise Ordinances. The County noise standard at a residential property line is 45 dB.

The proposed project is estimated to generate 41dB at the nearest residence. The background noise is 41 dB. The project would result in a noise level of 44 dB at the nearest residence. This represents a 3 dB increase in noise levels, which is generally regarded as an insignificant increase in noise. The project would comply with the City and County noise standard at the nearest residential property of 45 dB.

The proposed project is estimated to generate a maximum noise level of 70dB at the project property lines. This is consistent with the city and county 70 dB standard at the industrial facility property line.

The proposed project may, according to the project owner, generate tonal noise that would trigger the city 10 dB penalty for these noise frequencies. The project owner has proposed an acoustic study when the project initiates operation to determine if screech, whine, or hum is present. If screech, whine, or hum is determined to be present the project would be required to further reduce noise generated to comply with the 10 dB penalty required by the city ordinance. Implementation of **NOISE-1** and **NOISE-3** would address project noise impacts and compliance with city and county regulations.

The equipment used during the construction phase of the project is expected to produce noise levels in excess of 70 dB. The City of Escondido would ordinarily require a variance, if construction noise exceeds 70 dB. Given the CEC's exclusive jurisdiction, this variance would not be required. However, the project would be required by conditions of certification **NOISE-2**, **NOISE-3**, and **NOISE-4** to minimize construction noise impacts.

Adjacent undeveloped land and developed industrial facilities would be subject to construction noise. These uses would not be affected by the construction noise because they are not noise sensitive. Furthermore the noise would be temporary, and would only occur during the day.

The City of Escondido has recommended that several requirements be incorporated in the Commission Decision. In a letter to the CEC the city (Appendix B) recommends:

- Completing an acoustical analysis of the final plant design submitted for building permits to the satisfaction of the Director of Planning and Building in accordance with Sections 17-226-17-259 of the Escondido Municipal Code. The analysis shall be based on the manufacturer's data or engineering estimates for major noise generating sources (engine air intakes, turbine exhaust, high pressure natural gas compressor, high volume air blower, absorption chillers, pumps and direct equipment noise radiation, and other noise sources). The analysis and required mitigation must account for the appropriate levels of ambient noise (adjusted for the time of day), zoning categories, land uses, the distinctive sound characteristics of the facility, and nighttime and early morning operation.
- Completing acoustical tests of the plant as soon as practical during the construction period. The report shall identify any supplemental noise control measures required noise standards at all property lines as adjusted to address late night and early morning operation and distinctive noise characteristics of the facility. The applicant shall implement any additional noise control measures identified in the report to the satisfaction of the Director of Planning and Building, prior to final occupancy.
- Completing final acoustical tests of the plant within one (1) week of the completion of construction and document that required noise levels are achieved for surrounding uses. Documentation in the form of a Noise Monitoring Report shall be submitted to the satisfaction of the Director of Planning prior to occupancy. If this noise level exceeds the permitted noise threshold (adjusted for time of day, tonal characteristics, and ambient noise), plant operations shall cease and the plant design shall be modified to achieve the required level of noise reduction. In this case a new acoustical analysis shall be prepared and submitted to the Planning Division prior to operation.
- Prior to building permit issuance/commencement of construction, the applicant shall provide detailed information to the satisfaction of the Director of Planning and Building, detailing measures to prevent detectable vibration and perceptible odors

beyond the property lines as required by Section 33-570 of the Escondido Zoning Code.

Energy Commission staff takes note of these comments, and concludes that the standard Noise Conditions of Certification adequately address these concerns. Therefore, no additional Conditions of Certification are required.

LAND USE

The Escondido General Plan Land Use designation for the project site and surrounding land is General Industrial (P-1). This designation is designed for industrial areas that combine energy development and industrial uses. The site is zoned Light Industrial (M-1). Ordinarily a power plant proposed in this zone would require a Conditional Use Permit (CUP) from the City of Escondido. Review of the project by the Planning Commission, Design Review Board and the public would occur if the project were under the jurisdiction of the City of Escondido. The CEC has jurisdiction over the project, so a CUP would not be required. The project would still be required to comply with applicable city LORS, but project permits will be provided by the CEC. Therefore the proposed land use is consistent with the use requirements of the City General Plan and Zoning Ordinance.

With regard to project-related land use issues, the City of Escondido (Appendix B) has recommended that several requirements be incorporated in the Commission Decision. The city recommends:

- Prior to or concurrent with the issuance of building permits, the appropriate development fees shall be paid in accordance with the prevailing fee schedule in effect at the time of building permit issuance, to the satisfaction of the Director of Planning and Building.
- All construction and grading shall comply with all applicable requirements of the Escondido Zoning Code and requirements of the Planning Department, Director of Building, and the Fire Chief.
- All requirements of the Public Art Partnership Program, Ordinance No. 86-70 shall be satisfied prior to building permit issuance. The ordinance requires that a public art fee be added at the time of the building permit issuance for the purpose of participating in the City Public Art Program.
- If provided, trash enclosures must be designed and built per City standards.

Energy Commission staff takes note of these comments, and concludes that the standard Land Use Conditions of Certification adequately address these concerns.

The City of Escondido has also recommended that the following requirement be incorporated into the Commission Decision:

- All gated entrances shall be designed and improved to the satisfaction of the City Engineer.

Energy Commission staff takes note of this comment and has concluded that this condition shall be added as Condition of Certification **LAND-2** to ensure that the project complies with City of Escondido standards.

The City of Escondido has also recommended that the following requirements be incorporated into the Commission Decision:

- An inspection by the Planning Division shall be required prior to operation of the project.
- Laydown or staging activities are to only occur in the proposed SDG&E Mission substation parking lot, the area to the south of the facility, or other acceptable location to the satisfaction of the City Engineer.

Energy Commission staff takes note of these comments. However, the CEC is the ultimate approving authority for this power facility. Proper implementation and monitoring of all conditions of approval is the responsibility of the CEC compliance project manager (CPM) assigned to the project. The CPM makes every effort to coordinate with the City regarding construction and operation of power plants for which the CEC is responsible.

The City of Escondido has also recommended that the following requirements be incorporated into the Commission Decision:

- All blasting operations performed in connection with the improvement of the project shall conform to the City of Escondido Blasting Operations Ordinance.
- All property corners shall be monumented by a person authorized to practice land surveying and a Record of Survey Map (or Corner Record if appropriate) shall be recorded.
-
- Prior to building permit issuance, evidence of all right-of-way agreements involved in the installation of gas and electrical lines necessary to make the proposed plant fully functional shall be submitted to the satisfaction of the City of Escondido's Planning Division.
- If blasting is to occur, verification of a San Diego County Explosive Permit and a policy or certificate of public liability insurance shall be filed with the Fire Chief and City Engineer prior to any blasting within the City of Escondido. Any blasting shall comply with the provisions of Section 7705 of the City of Escondido Municipal Code.

Energy Commission staff takes notes of these comments, but has concluded that they are not applicable to the emergency permit process as established by the CEC.

The City of Escondido Fire Department provides fire protection as well as advanced and basic life support emergency medical service and transport for the project area. The nearest fire station is Fire Station #1, located less than three miles from the project site. This provides a response time of less than seven minutes. One ladder truck, three fire engines, and, one paramedic ambulance, along with a staff of fifteen and one duty chief would respond to a structure fire at the project site. The City of Escondido has indicated that the City fire fighting facilities would be adequate to serve the proposed project.

The City of Escondido has recommended that the following requirement be incorporated into the Commission Decision:

- Access for use of heavy fire fighting equipment as required by the Fire Chief shall be provided to the job site at the start of any construction and maintained until all construction is complete. Also, there shall be no stockpiling of combustible materials, and there shall be no foundation inspections given until on-site fire hydrants with adequate fire flow are in service to the satisfaction of the Fire Marshal
- Fire hydrants together with an adequate water supply shall be installed at locations approved by the Fire Marshal.

Energy Commission staff takes note of this comment and has concluded that this condition shall be added as Condition of Certification **PUB SER-2**.

The City of Escondido has also recommended that the following requirements be incorporated into the Commission Decision:

- Prior to building permit issuance/commencement of construction, all provisions for the containment, transport, and unloading of aqueous ammonia shall be approved by the City of Escondido Fire Department.
- The existing public sewer main and all sewer easements on Plan S-1119 shall be shown on the site and grading plan.
- Plans for all necessary fire protection facilities and improvements, including a fire hydrant, shall be approved by the City of Escondido's Fire Department prior to commencement of construction. Compliance with these measures shall be completed prior to occupancy prior to the satisfaction of the City's Fire Department.
- CALARP, RMP, Hazardous Materials Management Plan, and Odor Management Plan shall be submitted to the satisfaction of the Fire Department prior to building permit issuance/commencement of construction.
- This project is located within the Rincon Del Diablo Municipal Water District. It will be the developer's responsibility to make all arrangements with the Rincon District as may be necessary to provide water service for domestic use and fire protection.

Energy Commission staff takes note of these comments. However, the CEC is the ultimate approving authority for power facilities. Proper implementation and monitoring of all conditions of approval is the responsibility of the CEC compliance project manager (CPM) assigned to the project. The CPM makes every effort to coordinate with the City regarding construction and operation of power plants for which the CEC is responsible.

The City of Escondido Fire Department has adopted the Uniform Fire Code with modifications. Detailed project plans are typically reviewed by the Escondido Fire Department for compliance with their modified version of the Uniform Fire Code. Among the issues of concern to the City Fire Department are:

- Adequate access for fire fighting equipment
- Compliance with the Escondido Fire Code
- Fire flows in area hydrants
- Vegetation management/clearance
- Hazardous materials use.

To address the City of Escondido Fire Department concerns for fire related issues Standard Condition of Certification **LAND-1** (located in the Land Use section) requires that the project comply with all applicable LORS. This includes fire flows, access and vegetation management/clearance. The CBO will be responsible for insuring that the project complies with the City's Uniform Fire Code.

Hazardous materials issues are addressed in the **Hazardous Materials** section of this report. Odors could occur around the project site only in an upset event. The project includes the use of aqueous ammonia that will be stored in a 12,000-gallon tank built within a secondary containment designed to capture the entire contents of the tank should it fail. The secondary storage area will contain floating polyballs that are designed to reduce the surface area of the spill surface area and minimize associated vapors. Loading of ammonia will be conducted to allow for the truck to be parked in a delivery area sloped toward the containment area so that any spill occurring during loading will drain to the containment area surrounding the ammonia tank. Ammonia detectors with automatic alarms will be installed. The ammonia solution handling system, as well as operation and maintenance, will meet the requirements of the California Accident Release Prevention regulations of the San Diego County Department of Health Services.

The aqueous ammonia could create odors in an upset situation or accident. The applicant has proposed to construct, maintain, and operate facilities that are designed to minimize and contain spills and the release of odors. Therefore, no additional conditions of certification are proposed.

The project application does not include any proposal to install a telephone line to the project site. Pac Bell representatives have expressed concern that the power plant could generate an electrical current in the telephone line creating a health and safety hazard. Pac Bell recommends that the project include a phone line that has a device to ensure that power generated on the phone line does not reach the Pac Bell phone system. The device will consist of a box located approximately 300-feet from the project site that will reduce any electrical current in the line to required specifications. It is not yet known where the line and box will be located and an assessment of the impact is therefore not possible at this time. Condition of certification PUB SER-1 would require that the applicant submit the proposed phone line plans to the CPM for review and approval prior to excavations related to the phone line. The CPM will be responsible to ensure that the phone facility is constructed in a location where biological, archaeological, or paleontological resources would not be impacted.

TRAFFIC AND TRANSPORTATION

The project site will be accessed from State Route 78 (SR 78) to southbound Nordahl Road, then east on Vineyard Avenue, and south on Enterprise Street. To avoid peak-hour traffic on Vineyard Avenue, the project owner has proposed to use Mission Street as an alternative during the peak-hour. The project is expected to generate a maximum of 154 trips per day, including construction workers, materials, and equipment delivery during construction. During operation, the project will be unmanned. Operational traffic will be generated on an intermittent basis for routine maintenance. This operational traffic is not expected to be substantial (Operational traffic will not exceed the maximum construction trip generation of 154 trips per day on an intermittent basis for periodic maintenance).

The volume and available capacity for roadways that provide access to the project site are presented in the table below. Discussion with the City of Escondido Public Works Department (Personal communication Bob Carlson, City of Escondido Public Works Department May 18, 2001) indicate that SR 78 and other roadways in the project area will have sufficient capacity for project related traffic. The data indicates that there is sufficient capacity for both construction and operation traffic on all roadways that would be used to access the site.

Daily Area Roadway Volume and Capacity

Roadway Segment	Volume	Capacity
Enterprise Street	2,300	34,200
Nordahl Road (SR 78-Mission)	36,000	60,000
Citracado Parkway (Nordahl Road south of Mission)	21,000	40,100
SR 78 (Nordahl-I15 Ramp)	138,000	Not available
Mission Road (near Enterprise)	20,300	37,000
Vineyard	18,000	34,200

Construction of the natural gas line will result in an estimated 50 feet of construction in the Enterprise Road right-of-way. This is the only facility that will be constructed offsite in a roadway right-of-way. The gas pipeline construction will occur towards the end of an existing cul-de-sac where traffic volumes are low because there are few traffic generating uses in the area. Construction of linear facilities will not result in significant traffic impacts due to the limited nature of the proposed construction in the public right-of-way, the low volume of traffic in the area, and the temporary nature of the disturbance in the public roadway. However, construction within the city right-of-way will require an encroachment permit from the City of Escondido. Compliance with **TRANS-2** would require the project owner to obtain necessary permits. To ensure that the project owner returns the roadway to its existing condition after construction of the gas pipeline, compliance with **TRANS-4** is recommended. The project owner has proposed a Traffic Control Plan to address the impacts of project construction in the public roadway. This will be beneficial for addressing the impacts during construction.

There are regulations relating to the size and weight of vehicles using state and city roadways. These regulations are in place to protect public safety and to minimize damage to area roads from large, heavy loads. Compliance with **TRANS-1** will ensure that the project complies with the weight and size requirements of relevant jurisdictions.

Transportation of hazardous materials to the site including aqueous ammonia will be in compliance with California Highway Patrol and Caltrans requirements. **TRANS-3** requires the applicant to obtain the necessary permits and licenses for transportation of these hazardous materials.

The project owner has proposed to use the project site and the adjacent lay down area for parking during construction. This would avoid parking in the public-right-of-way and any impacts on parking in the area roadways.

The City of Escondido has recommended that the following requirement be incorporated into the Commission Decision:

All private driveways and parking areas shall be paved with a minimum of 3" (Asphaltic Concrete) AC over 6" of Aggregate Base (AB) or 5 1/2" Portland Cement Concrete (PCC) over 6" AB. All paved areas exceeding 15 percent slope or less than 1.0 percent shall be paved with PCC.

Energy Commission staff takes note of this comment and has concluded that this condition shall be added as Condition of Certification **TRANS-5**.

VISUAL RESOURCES

The project area contains rolling hills that are vegetated with grasses, shrubs and occasional landscape trees. The project site has been graded and is relatively flat, except for manufactured slopes at the north and south end of the site. The graded flat portion of the site has recently been mowed. Several small mounds of fill dirt and pipe are scattered around the site. A small hill is located south of the project site and the

area terrain slopes downward towards the north and east, and gently upward towards the west. The project site includes a dirt road that provides access from Enterprise Road, which has been improved to the edge of the property.

Development of industrial facilities has occurred to the north and east of the project site. On the western project boundary, there is a SDG&E electrical transmission corridor with two rows of steel lattice transmission lines and two rows of wooden distribution lines. In general, the industrial uses in this area have a neat well-kept appearance.

The proposed project would introduce an industrial structure onto the site with heights ranging from 30 feet to 50 feet tall. This includes an exhaust stack that is 50 feet tall and a "dead end" tower that is approximately 47 feet tall. A landscaped ten foot high earthen berm is proposed on the western boundary, and along the top of the existing manufactured slope on the north end of the project site. In addition, the manufactured slope on the south side of the entrance would be landscaped with tree screening for approximately 200 feet, beginning at the entryway. Approximately 80 feet of landscaping is proposed on the north side of the driveway, beginning at the entrance. The manufactured slope on the south side of the site will not be landscaped, except for the entryway landscaping described above. The proposed landscape plan includes screening of all outdoor storage areas and an irrigation system to maintain landscaping. The application states that all landscaping will be maintained in a weed and debris free condition. The application also states that the project will comply with City landscaping requirements.

Currently the site can be viewed from the houses in the long range across the valley to the north from approximately three miles and from Vineyard Avenue near the site. Vineyard Avenue views are an estimated 30 feet lower than the project site. These northern views of the site include views of the northern and northwestern portions of the site. A hill and ridge protrude from the south towards the north along the western edge of the transmission right-of-way adjacent to the site. The ridge ranges from an estimated 30 feet higher than the site at the southern part of the site to an estimated 15 feet approximately three quarters (3/4) of the distance up the western project property line. This ridge blocks any existing views of the site to the west and much of the views of the western portion of the site from Vineyard Avenue to the northwest. Highway 78 travelers have limited intermittent views of the site in the distance, due to partial screening by structures and vegetation.

There are no existing views from the south of the site, as that area is an undeveloped hill top that obscures any views from the south. There are extremely limited views of the site from the east because existing topography and landscaping obscure any views from that direction.

The berm and landscaping proposed by the applicant on the western and northern project boundaries would be sufficient to insure that views of the site from the north and west are screened from currently available views. In addition, **VIS-1** requires all portions of the structure visible to the public to be painted in a neutral color. This would reduce the visual impacts of any visible portions of the project. Any lighting proposed by the applicant could increase nighttime glare but **VIS-2** would address this problem by

requiring lighting and reflectors to not be visible. The City of Escondido would review the landscaping plan proposed by the applicant and their comments would be addressed by the CPM as required by **VIS-3**.

The adjacent property developers, which includes the Sempra Energy, have indicated that they plan to construct a power plant south of the project site and a business park west of the project site. The proposed CalPeak facility will be visible from the proposed but not-yet-approved industrial park to the west since the adjacent hill would be removed. This would open up views of the site from the west. The adjacent property developer has requested that the project electrical interconnection to the power lines in the right-of-way be placed underground. Views from the west would include the electrical transmission lines and poles and will be obscured in some cases by the structures and landscaping that would be constructed by developers of that industrial area. They propose to improve a planned street to gain access to their site from Vineyard Avenue via Citracado Parkway, a new road that would have views of the project site. The adjacent property developers are proposing to replace the electrical transmission facilities currently on steel lattice towers with steel poles to improve the visual appearance of the transmission corridor.

The adjacent property developer and the City of Escondido request that the CalPeak project should provide screening to reduce the impact of views from the proposed industrial park to the west and north. This screening would consist of a 10-foot high berm and landscaping including trees on the entire western and northern project boundaries. The applicant has agreed to include the berm and will provide detailed plans in the landscape plan.

The City of Escondido has recommended that several requirements be incorporated in the Commission Decision. The city recommends (Appendix B):

- All proposed signage associated with the project must comply with the City of Escondido Sign Ordinance (Ord. 92-47).
- In compliance with Article 62 (Landscape Standards, Section 1327 (Slope Planting) of the Zoning Code, all manufactured slopes over three feet high shall be irrigated with a system approved by the City of Escondido and shall be landscaped as follows: Each 1000 SF of cut slope shall contain a minimum of six (6) trees, five (5) gallon in size; ten (10) shrubs, one (1) gallon in size; and groundcover to provide one hundred percent coverage within one year of installation to the satisfaction of the Planning Division. Each 1000 SF of fill slope shall contain a minimum of six (6) trees, fifteen (15) gallon in size; ten (10) shrubs, five (5) gallon in size; and groundcover to provide one hundred (100) percent coverage.
- The required landscape and irrigation plan(s) shall comply with the provisions, requirements and standards in Ordinance 93-12. The plans shall be prepared by, or under the supervision of a licensed landscape architect.

- In accordance with the Escondido Landscape Ordinance and Design Guidelines, street trees shall be provided along every frontage within or adjacent to this industrial development in conformance with the Escondido Landscape Ordinance and Street Tree list.
- The landscape and irrigation on the slope along the northern property line shall be installed or upgraded/refurbished to conform to the existing slope planting requirements in the Landscape Ordinance.

Energy Commission staff takes note of these comments, and concludes that the standard Land Use Conditions of Certification (LAND-1) requiring compliance with applicable LORS adequately addresses these concerns.

The City of Escondido has also recommended that the following requirements be incorporated into the Commission Decision:

- The material colors utilized for the facility shall be earth or subdued tones, with no more than two main colors and one accent color, to the satisfaction of the Planning Division. No primary colors shall be utilized. The colors shall be indicated on building plans to the satisfaction of the Director of Planning and Building.
- Five (5) copies of detailed landscape and irrigation plan(s) shall be submitted prior to issuance of Grading or Building permits/commencement of construction, and shall be equivalent or superior to the concept plan submitted on April 11, 2001, to the satisfaction of the Planning Department. A plan check fee will be collected at the time of submittal.
- All manufactured slopes, or slopes cleared of vegetation shall be landscaped within thirty (30) days of completion of rough grading. If, for whatever reason, it is not practical to install the permanent landscaping, then an interim landscaping solution may be acceptable. The type of plant material, irrigation and the method of application shall be to the satisfaction of the Planning Department and City Engineer.
- Prior to final inspection and release for occupancy, all required landscape improvements shall be installed and all vegetation growing in an established, flourishing manner. The required landscaped areas shall be free of all foreign matter, weeds and plant material not approved as part of the landscape plan. All irrigation shall be maintained in fully operational condition.
- The type, size and location of trees shall be to the satisfaction of the Director of Planning and Building and the City Engineer pursuant to the Escondido Parkway Tree Planting Plan.
- Per the Tree Preservation Ordinance, a protected tree (any oak which has a ten inch or greater diameter breast height) which is removed, shall be replaced at a minimum 2:1 ratio with minimum 24"-box sized trees. The number, type and size of

replacement trees shall be to the satisfaction of the Director of Planning and Building.

- The proposed perimeter fencing shall be constructed out of decorative material, i.e. wrought iron, to the satisfaction of the Planning Department and shall be shown on the landscape plan.
- The installation of the landscaping and irrigation shall be inspected and documented to the City of Escondido by the project landscape architect prior to occupancy. He/she shall complete a Landscape Certificate of Compliance certifying that the installation is in substantial compliance with the approved landscape and irrigation plans and City standards.
- A minimum 10' high, heavily landscaped berm shall be provided along the western and northern property lines. Additionally, walls of the following heights shall be placed on the top of the berm to address the recommendations of the noise study and potential visual issues:

North- 5'

West- 20'

- The required wall shall utilize a decorative design of either split-face block or other architectural design reflecting the materials and color of the primary structures.
- A minimum 20' wall shall be provided along the southern property line. The wall shall utilize a decorative design of either split-face block or other architectural design reflecting the materials and color of the primary structures.
- A minimum 15' wall shall be provided along the eastern property line. The wall shall utilize a decorative design of either split-face block or other architectural design reflecting the materials and color of the primary structures
- New landscaping shall be added to the exterior side of all sound/screen walls to soften their appearance, to the satisfaction of the Planning Division. This shall include a combination of trees, shrubs and climbing vines.

Energy Commission staff takes note of these comments, and encourages the dialog between the applicant, the City, and the adjacent lands developers. However, the CEC is the ultimate approving authority for power facilities. Proper implementation and monitoring of all conditions of approval is the responsibility of the CEC compliance project manager (CPM) assigned to the project. The CPM makes every effort to coordinate with the City regarding construction and operation of power plants for which the CEC is responsible.

It is noted that the applicant, and the potential developer of adjacent lands which are slated to become a business park, have been working together to resolve and

coordinate landscape and pad designs. There has been significant success, and revised landscape plans were submitted on the May 29, 2001. These revisions, mutually agreed to are described in Conditions of Certification **VIS-1** through **VIS-3**, meet or exceed many of the City of Escondido specific concerns regarding visual and noise issues. The applicant and the other parties remain in contact regarding resolution of these issues.

Standards conditions of Certification **VIS-1**, **VIS-2**, and **VIS-3** would all reduce project visual impacts and are recommended.

ENGINEERING

FACILITY DESIGN

The project 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. It should be noted that the range of permitted activity relating to the construction and operation of power plants is monitored carefully by the CEC for the life of the project.

The standard Facility Design condition of certification, **GEN-1**, is required. In addition, Facility Design condition of certification **GEN-2** is proposed to ensure effective coordination of the CBO's review and inspection process and to minimize delays in performing the necessary design reviews.

CEC staff has conducted an independent review of geologic mapping available for the neighborhood of the site. Of the available published geologic maps, neither the map of Merriam (1954), nor the map of Kennedy and Peterson (1975), cover the area of the site. A third geologic map (ERC, 1989), published in the Draft General Plan of the City of Escondido, was submitted for review by the Applicant. This map shows that the site would be developed at a place where granitic rocks are in contact with Jurassic or Triassic marine sedimentary or metasedimentary rocks.

The site is equidistant from two active faults: the Whittier-Elsinore fault to the east and the Rose Canyon fault to the west (offshore) (Jennings, 1994). The shortest distance between the site and any of the two faults is about 18 miles. The Acc Whittier-Elsinore fault is classified by the CBC (1998) as a Type-A fault. Petersen et al (1996) have estimated the maximum magnitude of an earthquake along the Elsinore-Temecula segment of a the fault at about M_w of 6.8. They also estimated that there is a 10% probability that the site will experience a peak horizontal acceleration as high as 0.3g over the next 50 years. Even though this value is relatively modest, the City of

Escondido is within Zone 4 of the CBC (1998), and design must be performed to Zone 4 standards.

CEC staff also inspected the aerial photograph of the site provided by the Applicant. This photograph shows that the site is at the base of a graded cut slope. Landslides are a source of concern in this area, because many of the granitic rocks are fractured and weathered, and become unstable following heavy rainstorms. Because of this potential instability, and the location of the site at the base of a steep cut slope, CEC staff requires that the site be inspected by a Certified Engineering Geologist. This specialist should provide a professional opinion regarding the stability of the cut slope, and suggest appropriate mitigation measures if needed.

Because the site is underlain by igneous intrusive or metamorphic rocks, CEC staff concludes that liquefaction hazards are not an issue at this site.

The site is located at the base of a small hill, at an elevation of about 745 feet. The nearest drainage is Escondido Creek, about a mile to the southeast, with a channel at an elevation of about 630 feet. Based on the 90-foot difference in elevation, CEC staff concludes that flooding hazards are not an issue at this site.

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 members of the community; and
- Whether the environmental impacts are likely to fall disproportionately on minority and/or low-income members of the community.

Though the minority population within a three-mile radius of the project is growing steadily, this group is still less than 30 per cent of the total, and are dispersed through the surrounding census tracts. The two tracts with the greatest concentration are approximately 2.5 miles distant. Low-income data for the affected tracts was not yet available from the 2000 census, but can be expected to have increased with the population. In 1990, low income families constituted less than 30 percent of households within the census tracts containing the largest minority concentrations, and were generally dispersed throughout all adjacent tracts rather than concentrated near the project area. Since the project will be screened for noise and visual disruption, and will be among the cleanest emitting facilities being built, no environmental justice issues have been identified.

TRANSMISSION SYSTEM ENGINEERING

The CalPeak Escondido Peaker Project will connect to San Diego Gas and Electric Company's Escondido substation via a new 1,200 foot 69 kV transmission line. The first two hundred feet of the line is new using new poles to connect to an existing line. The project will add a second circuit to existing poles for the last 1000 feet. If SDG&E determines that the existing poles are not able to accommodate a second circuit, the existing poles will be replaced. Based on the results of the seven-day interconnection study, the operation the CalPeak Escondido project will not result in the overload of any facilities. CalPeak Escondido will not require significant downstream electric facilities and will comply with safety standards and there are no significant transmission issues¹.

The interconnection study did not include several facilities in the interconnection queue ahead of the CalPeak project with on-line dates after the Calpeak project, and, CalPeak could be responsible for mitigating overloads determined at a later date.

Among the issues being discussed between the applicant and the adjacent lands developer are the options for the intertie between the power plant and the adjacent transmission line. An early option considered by the applicant was an underground routing to the point of connection to the main transmission lines. In effect, both undergrounding as well as overhead means were examined by CEC resource staff. Initially, the applicant decided on the overhead connection. At the time of this report, discussions between the applicant and adjacent property developers are exploring the possibility of connecting underground. This is, in part, due to the extensive berm and landscape plan changes. Should the applicant prefer the underground interconnection based on these discussions, the CEC would be prepared for a quick review of any reasonable change based on agreements between the affected parties.

CONCLUSION

The CalPeak Enterprise #7 Escondido 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. In addition, it adds resources at a critical time in an area that has been identified as at risk during this summer season.

The proposed conditions of certification serve to protect the public interest and the environment. Staff recommends approval of this project.

¹ CPUC General Order 95, CPUC Rule 21, Title 8, Articles 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 appropriate comments or references.

**CALPEAK ENTERPRISE #7 ESCONDIDO
EMERGENCY PERMIT EVALUATION CHECKLIST
CALIFORNIA ENERGY COMMISSION**

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
1 Project Description					
1.1 Project owner/operator (Name, title, address, phone)	Yes	Page 1, Figures 1, 2, 3			
1.2 Overview of power plant and linear facilities	Yes	Page 1			
1.3 Structure demensions (size and height), plan and profile	Yes	Page 4, Appendix A, Figures 4, 5A, and 5B			
1.4 Full size color photo of the site and rendering of proposed facility if available	Yes	Page 4, Figures 3,4, 6, 7, 8, and 9			
1.5 Maximum foundation depth, cut and fill quantities	Yes	Page 4, Figures 1, 2, and 3			
1.6 Conformance with California Building Code	Yes	Page 5			
1.7 Proposed operation (hours per year)	Yes	Page 5			
1.8 Expected on-line date	Yes	Page 5			
1.9 Proposed duration of operation (years)	Yes	Page 5			

² A copy of the application for the project is attached to this assessment.

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
1.10 Identify transmission interconnection facilities	Yes	Page 5	No significant issues	See standard condition	Applicant may have to replace existing poles with poles that are appropriate for a double circuit line.
1.11 Transmission interconnection application	Yes	Attachment B			
1.12 "Down-stream" transmission facilities, if known	Yes	Attachment B	No significant issues. Project may have to mitigate overloads determined later.		
1.13 Fuel interconnection facilities	Yes	Page 5 Appendix B			
1.14 Fuel interconnection application	Yes	Page 6 Appendix B			
1.15 Water requirements and treatment	Yes	Page 7			
1.16 Water interconnection facilities (supply/discharge)	Yes	Page 7			
1.17 Source and quality of water supply	Yes	Page 7			
1.18 Water supply agreement/ proof of water supply	Yse	Page 8 Appendix D			
2 Site Description					
2.1 Site address (street, city, county)	Yes	Page 8			No site address has been assigned.
2.2 Assessor's parcel number	Yes	Page 8			

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
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 8, Appendix E			
2.4 Existing site use	Yes	Page 8			
2.5 Existing site characteristics (paved, graded, etc.)	Yes	Page 8			
2.6 Layout of site (include plot plan)	Yes	Page 9, Appendix A			
2.7 Zoning and general plan designations of site and linear facilities	Yes	Page 9			
2.8 Ownership of site (Name, address, phone)	Yes	Page 9			Applicant states they have agreement to buy property.
2.9 Status of site control	Yes	Page 9, Appendix F			Applicant states they have agreement to buy property.
2.10 Equipment laydown area – size and location	Yes	Page 10, Appendix A			
3 Construction Description					
3.1 Construction schedule	Yes	Page 10			
3.2 Workforce requirements (peak, average)	Yes	Page 10, Table 1, and 2			

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
4 Power Purchase Contract (DWR, ISO, other)					
4.1 Status of negotiations and expected signing date	Yes	Page 11			Final negotiations in progress per applicant
5 Air Emissions					
5.1 Nearest monitoring station (location, distance)	Yes	Page 11 Appendix G			
5.2 Provide complete self certification air permit checklist	Yes	Page 11 Appendix G and H			SDAPCD issued draft Authority To Construct
5.3 Provide complete air permit application	Yes	Page 11 Appendix G			
5.4 Status of air permit application with air district	Yes	Page 11 Appendix H			
5.5 Status of offsets and/or mitigation fees, as required	Yes	Page 12 Appendix J		Title IV Clean Air Act SO2 offset allowances	Applicant Memo dated 5-31-01: will purchase
6 Noise					
6.1 Local noise requirements	Yes	Pages 12 and 13			
6.2 Nearest sensitive receptor (type, distance)	Yes	Page 12			
6.3 Project noise level at nearest property line	Yes	Page 14			

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
6.4 Proposed mitigation if required	Yes	Page 15			No mitigation measures were required because no impacts were identified.
7 Hazardous Materials					
7.1 Type and volume of hazardous materials on-site	Yes	Section 7.1	No	No	No
7.2 Storage facilities and containment	Yes	Section 7.1	No	No	No
8 Biological resources					
8.1 Legally protected species* and their habitat on site, adjacent to site and along right of way for linear facilities (<i>*threatened or endangered species on State or federal lists, State fully protected species</i>)	Yes	Page16 Appendix K	The site may contain California gnatcatchers, a Federally-listed threatened species. The site may also contain habitat for nesting Northern harriers.	BIO-7 & 8	Inadequate surveys, both in protocol and seasonal timing, were done for many sensitive plant & wildlife species Surveys are in progress
8.2 Designated critical habitat on site or adjacent to site (wetlands, vernal pools, riparian habitat, preserves)	Yes	Page17 Appendix K	The site contains Diegan coastal sage scrub and non-native grasslands.	BIO-9 – 11	Addequate mitigation is planned where appropriate.
8.3 Proposed mitigation as required	Yes	Page17 Appendix K	Take of coastal sage scrub and non-native grassland requires compensation.	BIO 10	Addequate mitigation is planned where appropriate.

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
9 Land Use					
9.1 Local land use restrictions (height, use, etc.)	Yes	Page 19		LAND-2	Applicant states that the project will comply but does not identify land use restrictions.
9.2 Use of adjacent parcels (include map)	Yes	Page 19, Figure 11			
9.3 Ownership of adjacent parcels – site and linears	Yes	Page 19, Appendix E			
9.4 Demographics of census tract where project is located (most current available)	Yes	Pages 19, 20			Application provides two different census tract numbers for the project site. Requested clarification.
10 Public Services					
10.4 Ability to serve letter from Fire District	No	Page 21, Appendix L			
10.5 Nearest fire station	Yes	Page 21			
11 Traffic and Transportation					
11.4 Level of Service (LOS) measurements on surrounding roads – a.m. and p.m. peaks	Yes	Page 21			
11.5 Traffic Control Plan for roads during construction	Yes	Page 21			
11.6 Traffic impact of linear facility construction	Yes	Page 22			

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
11.7 Equipment transport route	Yes	Page 23			Project owner proposes to avoid Vineyard Avenue during peak hours. This may not be necessary as data provided by the City of Escondido indicate sufficient capacity exists on Vineyard Avenue.
11.8 Parking requirements – workforce and equipment	Yes	Page 23			Parking will occur on the project site and on the adjacent staging area.
12 Soil and Water Resources					
12.4 Wastewater volume, quality, treatment	Yes	Page 22	The Applicant has planned for no wastewater discharge from the site.	Soil & Water 5	
12.5 Status of permits for wastewater discharge or draft permit (WDR/NPDES)	Yes	Page 22	NPDES permits are not required during construction or operations, however the City of Escondido is requesting a Construction NPDES.	Soil & Water -6	To aid the City of Escondido in complying with RWQCB requirements the CEC will direct the Applicant to develop SWPPP's for both construction and operation.
12.6 Draft Erosion Prevention and Sedimentation Control Plan or Mitigation Strategy	Yes	Page 23			
12.7 Spill Prevention/Water Quality Protection Plans	Yes	Page 23			

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
13 Cultural Resources					
13.4 Identification of known historic/prehistoric sites	Yes	Pages 24 and 25			
13.5 Proposed mitigation if required	Yes	Page 25			
14 Paleontological Resources					
14.4 Identification of known paleontologic sites	Yes	Section 14-1		PALEO 1	
14.5 Proposed mitigation if required	Yes	Section 14-1			
15 Visual resources					
15.4 Plan for landscaping and screening to meet local requirements	Yes	Page 28, Appendix A			Revised 5-30-01 based upon input from City and neighboring developers.
15.5 Full size color photo of the site and rendering of proposed facility with any proposed visual mitigation if available	Yes	Figures 7-9			

<u>REQUIREMENT</u>	<u>Y/N</u>	<u>Application pages²</u>	<u>Significant Issues</u>	<u>Special Conditions</u>	<u>Comments</u>
16 Transmission System Engineering					
16.4 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	Page 28			

CALPEAK ENTERPRISE #7 ESCONDIDO 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 The San Diego Air Pollution Control District (SDAPCD) for the project; and
- the project continues to meet BACT requirements under SDAPCD and California Air Resources Board (CARB) requirements.

The project certification 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 met.

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 Calpeak Enterprise #7 Escondido (Calpeak Escondido) shall be on-line by not later than September 30, 2001. If Calpeak Escondido 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 Calpeak Escondido in operation by September 30, 2001, the Energy Commission will set a specific date by which Calpeak Escondido 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-3000)
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 one mile of the project notifying them of a telephone number to contact project representatives with questions, complaints or concerns. If the telephone is not staffed 24 hours per day, it shall include automatic answering, with date and time stamp recording. 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.

TECHNICAL AREA CONDITIONS OF CERTIFICATION

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 the San Diego Air Quality Management 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.

BIOLOGICAL RESOURCES

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

BIO-2 The project permitted under this emergency process will avoid all significant non-mitigatable 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 significant non-mitigatable impacts to locally designated sensitive species and protected areas.

BIO-4 The project permitted under this emergency process will reduce the risk of large bird electrocution by electrical transmission lines and any interconnect 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 the Compliance Project Manager (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 pre-construction 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 consultations 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 any site mobilization a FWS approved biologist will conduct protocol surveys of the project site and the construction laydown area for coastal California gnatcatchers.

Verification: The designated biologist shall submit a report of the findings to the CPM prior to construction. If California gnatcatchers or other TES species are found the CPM may recommend additional agency consultation.

BIO-8 Prior to any project-related activities that will occur during the raptor-breeding season (March 15 – August 15), a qualified biologist will conduct surveys of the project site and the surrounding habitat within a ½ mile radius of the project boundary. Surveys methodologies will allow for a thorough search of these areas to identify potential arboreal and/or ground nesting raptor species.

Verification: The designated biologist shall submit a report of the findings to the CPM prior to construction. If special status nesting birds or other TES species are found the CPM may recommend additional agency consultation.

BIO-9 The project biologist, prior to site mobilization, will fence off all sensitive natural resource areas including all Diegan Coastal Sage Scrub (DCSS) habitat. The project biologist will then be present onsite during construction until a date determined by the CPM. Finally the project biologist, along with the CPM will perform a site review for sensitive habitat impacts at the end of construction.

BIO-10 Prior to any operational activities, the applicant will submit a report of any impacted habitat to the CPM for review. The applicant will then develop mitigation compensation plans using a 2:1 ratio for DCSS and a 0.5:1 ratio for Non Native Grasses (NNG).

Verification: The applicant will submit a mitigation compensation plan for any impacted critical habitat to the CPM for approval prior to plant operations.

BIO-11 At a time to be determined by the CPM, the applicant will develop a restoration plan for impacts resulting from grading and other activities within the construction laydown area.

Verification: The applicant will submit a restoration plan for impacts to the construction laydown area to the CPM for approval at a time designated by the CPM.

CULTURAL RESOURCES

CUL-1 The project certified under this emergency process shall not cause any significant impact to any cultural resources. No on-site cultural resource monitoring is required for this project. In the event of an inadvertent cultural discovery the following mitigation measures must be followed:

- All work within 100-feet of the suspected cultural material must halt and a qualified Cultural Resource Specialist will be contacted immediately to evaluate the significance of the find. The project manager, construction manager, and the Compliance Project Manager will be notified if the resource is judged to be potentially significant, and the archaeologist may recommend further study.
- 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 San Diego 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 Descendants (MLD). The MLD will be notified and will determine the most appropriate disposition of the remains and any associated artifacts.

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.

GEN-2 Prior to submittal of the initial engineering designs for CBO review, the project owner shall furnish to the CPM and to the CBO a schedule of facility

design submittals, a Master Drawing List, and a Master Specifications List. The schedule shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures and equipment.

Verification: At least 15 days (or a lesser number of days mutually agreed to by the project owner and the CBO) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule, the Master Drawing List, and the Master Specifications List of documents to be submitted to the CBO for review and approval.

GEOLOGICAL RESOURCES

GEOL-1 A Certified Engineering Geologist must perform an evaluation of the stability of the cut slopes adjacent to the site, and recommend necessary mitigation measures, if any. The report of the Certified Engineering Geologist should be submitted for review to the CPM.

Verification: The geotechnical report should be submitted to the CPM for review and approval prior to grading.

HAZARDOUS MATERIALS MANAGEMENT

HAZ-1 The project owner shall not use any hazardous material in reportable quantities 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.

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 Detailed plans for all driveways shall be submitted to the City of Escondido Public Works Department for review and comment and to the CPM for review and approval prior to construction of the entryway.

Verification: The CPM shall review the entryway plans to ensure that City concerns have been addressed and shall inspect the constructed driveways to ensure that they are constructed to City driveway standards.

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. 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 45 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 City Planning or 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.

PALEONTOLOGICAL RESOURCES

PALEO-1 The project certified under this emergency process shall not cause any significant impact to paleontological resources on the power plant site or linear rights of way. If significant paleontological resources are inadvertently discovered, the applicant shall stop work in that area and consult with the CPM.

Verification: Throughout construction, the project owner shall inform the CPM concerning any discovery of significant paleontological resources.

SOIL AND WATER RESOURCES

SOIL & WATER-1: An NPDES permit for construction activities will not be required due to a construction impact of less than 5 acres.

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

Verification: The Erosion Control and Sediment Control Plan for the project shall be submitted to the CPM for approval 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: A copy of the water service agreement or well permit shall be submitted to the CPM prior to site mobilization.

SOIL & WATER-4: A valid wastewater discharge permit will not be required due to the Applicant's commitment that there will be no wastewater discharged. Any wastewater generated will be transported offsite to an approved disposal facility.

SOIL & WATER 5: All wastewater discharge from the site will be collected in tanker trucks and transported offsite to an appropriate disposal facility. Any changes in disposal plans for wastewater will be submitted to the CPM for approval.

SOIL & WATER 6: The Applicant will develop Storm Water Pollution Prevention Plans (SWPPP) for construction and industrial activities, including all applicable BMP's.

Verification: A copy of both SWPPP's will be submitted to the CPM for approval prior to any construction and industrial activities respectively.

PUBLIC SERVICES

PUB SER-1 Prior to commencement of excavations related to the telephone line the project owner shall submit plans showing the location of the telephone facilities necessary to serve the project for review and approval.

Verification: The CPM shall review plans for construction of the phone line and related facilities to ensure that construction related to these facilities would occur in developed area where sensitive biological, archaeological, or paleontological resources would not be impacted.

PUB SER-2 Prior to commencement of project construction the project owner shall have fire hydrants installed at intervals indicated by the City of Escondido Fire Marshall and access for heavy fire fighting equipment shall be sufficient to accommodate fire department equipment.

Verification: The CBO shall inspect the site to ensure that fire equipment access and fire hydrants have been installed to meet Fire Marshall 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.

Verification: Standards conditions of Certification VIS-1, VIS-2, and VIS-3 would all reduce project visual impacts and are recommended.

TRANS-5 Driveways and parking areas shall be paved with a minimum of 3" Asphaltic Concrete (AC) over 6" of Aggregate Base (AB) or 5 1/2" Portland Cement Concrete (PCC) over 6" AB. All paved areas exceeding 15% slope or less than 1.0% shall be paved with PCC.

Verification: The CPM shall inspect the driveways and paving to ensure that they are paved to City of Escondido standards.

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.

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 City of Escondido for review and comment, and to the CPM for review and approval a landscaping plan that complies with City of Escondido Landscape Ordinance requirements which provides for any or all of the following, as appropriate, to screen the project from view: berms, vegetation and trees, and use of square tubular steel security fencing. Berms provided shall be ten (10) feet in height on the west and northern edges of the project site.

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

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.

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.

FIRE SAFETY-1 The project owner must comply with City of Escondido fire safety regulations, including appropriate site access and egress.

Verification: The project owner shall submit to the CPM verification from the local fire department that this condition is met, and must report any violations to the CPM.

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**CALPEAK ENTERPRISE #7 ESCONDIDO
EMERGENCY PERMIT EVALUATION
PREPARATION TEAM
CALIFORNIA ENERGY COMMISSION**

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Rick Tyler Hazardous Materials Management
Steve Baker Facility Design
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APPENDIX A

ESCONDIDO PEAKER PROJECTS CUMULATIVE IMPACT PG&E DISPERSED GENERATION AND CALPEAK SITES

AIR QUALITY IMPACTS AND RULE 1200 ANALYSIS

CLARIFICATION REGARDING SELECTION AND USE OF SITE FOR METEOROLOGIC DATA USED IN AIR QUALITY ANALYSIS

PRELIMINARY AUTHORITY TO CONSTRUCT LETTER

March 13, 2001

To: Alta Stengel
Mechanical Engineering Section

From: Ralph DeSiena
Monitoring and Technical Services Section

Subject: CalPeak Power, LLC
CalPeak Enterprise No. 7 Site
Application 976019

I have reviewed the modeling submitted by Scientific Resources Associated in support of the Air Quality Impact Analysis (AQIA) and Rule 1200 evaluation for a proposed 49.5 MW gas fired turbine at a site in Escondido. The modeling was performed in accordance with District and EPA guidance. Regulatory default settings were used and building downwash was considered. Three years of meteorological data (1992-1994) for Miramar NAS, CA were used for the modeling. The receptor grid was sufficiently dense to identify maximum impacts. USGS digital terrain data was used to determine receptor elevations. Worst-case background concentrations monitored at the Air Pollution Control District's Otay Escondido station between 1997 and 1999 were used for the AQIA. The applicant's consultant supplied worst-case emissions for CO and NO_x for both controlled and uncontrolled operating scenarios. Worst-case emission release parameters were also supplied.

Based upon the supplied information the results of the modeling, including worst-case monitored background concentrations, indicate that California and Federal standards for CO and NO₂ will not be exceeded due to the proposed operation of this facility, with or without the SCR control system.

The final evaluation report supplied is attached.

April 11, 2001

To: EARNIE DAVIS, ALTA STENGEL, ARTHUR CARBONELL, MECHANICAL ENGINEERING SECTION

From: Ralph DeSiena, Monitoring and Technical Services Section

ESCONDIDO PEAKER PROJECTS CUMULATIVE IMPACT PG&E DISPERSED GENERATION AND CALPEAK SITES

I have performed modeling in support of a cumulative impact analysis for two proposed gas fired turbines in the Escondido area, a 44 MW unit at 2037 West Mission Road (PG&E Dispersed Generation) and a 49.5 MW unit on Enterprise St. (CALPEAK). EPA's ISC model was used to determine predicted maximum cumulative 1-Hour and 8-Hour CO concentrations, 1-Hour and Annual NO₂ concentrations and 24-Hour and Annual PM10 concentrations in the project vicinity. Both uncontrolled and controlled emission scenarios were modeled. The modeling was performed in accordance with District guidance. Regulatory default settings were used and building downwash was considered. The Good Engineering Practice (GEP) stack height was used for all modeling performed. Three years of meteorological data (1993-1995) for Miramar NAS, CA were used for the modeling. The receptor grid was sufficiently dense to identify maximum impacts. USGS digital terrain data was used to determine receptor elevations. The modeling assumed 24 Hr/day and 365 days/year operations for both facilities.

A review of the Escondido monitoring station data for 1996-1999 indicated a worst-case 1-Hour and 8-Hour background CO concentration of 12.8 mg/m³ and 8.1 mg/m³ respectively. Worst-case 1-Hour and Annual NO₂ concentrations were 228 ug/m³ and 43 ug/m³ respectively. PM10 concentrations were 63 ug/m³ for 24-Hour, an annual geometric mean of 29 ug/m³ and an annual arithmetic mean of 30 ug/m³.

The results of the modeling including worst-case monitored background concentrations indicate that California and Federal standards for CO and NO₂ will not be exceeded due to the operation of these facilities, with or without emission control systems. Tables 1 through 4 summarize the results for this modeling.

**Table 1
Uncontrolled Case CO Impacts and Air Quality Standards**

Average Period	Predicted Impact mg /m³	Background mg/m³	Total Impact mg /m³	California Standard mg /m³	Federal Standard mg /m³
1-Hour	0.46	12.8	13.5	23	40
8-Hour	0.38	8.1	8.5	10	10

**Table 2
Controlled Case CO Impacts and Air Quality Standards**

Average Period	Predicted Impact mg /m³	Background mg/m³	Total Impact mg /m³	California Standard mg /m³	Federal Standard mg /m³
1-Hour	0.04	12.8	12.84	23	40
8-Hour	0.03	8.1	8.23	10	10

**Table 3
Uncontrolled Case NO₂ Impacts and Air Quality Standards**

Average Period	¹ Predicted Impact ug/m³	Background ug/m³	Total Impact ug/m³	California Standard ug/m³	Federal Standard ug/m³
1-Hour	210.6	228	439	470	None
Annual	9.5	43	52.5	None	100

¹ Assumes NO_x = NO₂

**Table 4
Controlled Case NO₂ Impacts and Air Quality Standards**

Average Period	¹ Predicted Impact ug/m³	Background ug/m³	Total Impact ug/m³	California Standard ug/m³	Federal Standard ug/m³
1-Hour	23.6	228	252	470	None
Annual	1.1	43	44.1	None	100

¹ Assumes NO_x = NO₂

PM10 emissions were assumed to be the same for the controlled and uncontrolled cases. Cumulative impacts associated with both facilities operating 24/day and 365 days/year were modeled. Three years of meteorological data (1993-1995) for Miramar NAS, CA were used for the modeling. The maximum predicted 24-Hour impact for all 3 years modeled was 2.88 ug/m³. Since the 24-hour California Standard is exceeded by background concentrations in the project area an evaluation of whether addition exceedances would be caused by operation of these facilities was conducted. For this evaluation all days ≥ 48 ug/m³ but ≤ 50 ug/m³, the California Standard, were modeled. Results of the modeling analysis are presented in Table 5.

Table 5
PM10 Impacts and Air Quality Standards Controlled and Uncontrolled Cases

Average Period	Predicted Impact ug/m³	Background ug/m³	Total Impact ug/m³	California Standard ug/m³	Federal Standard ug/m³
9/28/93 (24 Hr)	0.39	50.0	50	50	150
4/20/94 (24 Hr)	0.02	50.0	50	50	150
12/10/94 (24 Hr)	1.15	48.0	49	50	150
8/31/95 (24 Hr)	0.16	49.0	49	50	150
Annual Geometric	¹ 0.36	29	29.4	30	
Annual Arithmetic	0.36	30	30.4		50

¹ Arithmetic Average

From these modeling results it is concluded that operation of these facilities 24 Hr/Day will not cause additional exceedances of the California 24-Hour PM10 Ambient Air Quality Standard or cause or contribute to an exceedance of the 24-Hour Federal Ambient Air Quality Standard.

Operation of these facilities 365 days/year will not cause or contribute to an exceedance of the California and Federal Annual PM10 Ambient Air Quality Standards.

Cc: Mike Lake
 Dan Speer

CalPeak Enterprise No. 7

AQIA for NOx Emissions at 5 ppm Nox

31-May-01

NOx Emissions

Max. 1-Hour NOx Emissions		Annual Average NOx Emissions	
(lb/hr)	(g/sec)	(tons/yr)	(g/sec)
10.3	1.30	45.1	1.30

Maximum 1-hour NO₂ Concentration

Max. 1-hr X/Q ¹	Max. Modeled NOx 1-hr Conc. (µg/m ³)	NO ₂ 1-hour Concentration (µg/m ³)			NO ₂ 1-Hour Standard (µg/m ³)		Exceed Standard?
		Max. Modeled	Background ³	Total	California	Federal	
8.13	10.56	10.56	227.2	237.8	470	None	NO

Annual Average NO₂ Concentration

Ann. Avg. X/Q ¹	Max. Modeled NOx Ann. Conc. (µg/m ³)	NO ₂ Annual Concentration (µg/m ³)			NO ₂ Annual Standard (µg/m ³)		Exceed Standard?
		Max. Modeled ²	Background ⁴	Total	California	Federal	
0.66	0.85	0.64	43.2	43.8	None	100	NO

¹ Obtained from ISCST3 modeling

² Default ambient NO₂/NOx ratio of 0.75 used

³ Max. 1-hour value from Escondido E. Valley Parkway station 1997-1999 CARB website data (0.121 ppm, or 227.2 µg/m³ NO₂)

⁴ Max. annual value from Escondido E. Valley Parkway station 1997-1999 CARB website data (0.023 ppm, or 43.2 µg/m³ NO₂)

CalPeak Enterprise - Uncontrolled

AQIA for NOx Emissions at 39 ppm NOx

31-May-01

NOx Emissions

Max. 1-Hour NOx Emissions		Annual Average NOx Emissions	
(lb/hr)	(g/sec)	(tons/yr)	(g/sec)
80.2	10.10	351.3	10.11

Maximum 1-hour NO₂ Concentration

Max. 1-hr X/Q ¹	Max. Modeled NOx 1-hr Conc. (µg/m ³)	NO ₂ 1-hour Concentration (µg/m ³)			NO ₂ 1-Hour Standard (µg/m ³)		Exceed Standard?
		Max. Modeled	Background ³	Total	California	Federal	
8.13	82.19	82.19	227.2	309.4	470	None	NO

Annual Average NO₂ Concentration

Ann. Avg. X/Q ¹	Max. Modeled NOx Ann. Conc. (µg/m ³)	NO ₂ Annual Concentration (µg/m ³)			NO ₂ Annual Standard (µg/m ³)		Exceed Standard?
		Max. Modeled ²	Background ⁴	Total	California	Federal	
0.66	6.63	4.98	43.2	48.2	None	100	NO

¹ Obtained from ISCST3 modeling

² Default ambient NO₂/NOx ratio of 0.75 used

³ Max. 1-hour value from Escondido E. Valley Parkway station 1997-1999 CARB website data (0.121 ppm, or 227.2 µg/m³ NO₂)

⁴ Max. annual value from Escondido E. Valley Parkway station 1997-1999 CARB website data (0.023 ppm, or 43.2 µg/m³ O₂)

CalPeak Enterprise - Uncontrolled

AQIA for CO Emissions at 340 ppm CO

31-May-01

CO Emissions

Max. 1-Hour CO Emissions		Max. 8-Hour CO Emissions	
(lb/hr)	(g/sec)	(lb/hr)	(g/sec)
352.6	44.43	352.6	44.43

Maximum 1-hour CO Concentration

Max. 1-hr X/Q ¹	Max. Modeled CO 1-hr Conc. ($\mu\text{g}/\text{m}^3$)	CO 1-hour Concentration ($\mu\text{g}/\text{m}^3$)			CO 1-Hour Standard ($\mu\text{g}/\text{m}^3$)		Exceed Standard?
		Max. Modeled	Background ²	Total	California	Federal	
8.13	361.35	361.35	11429.0	11,790.3	23000	40000	NO

Maximum 8-hour CO Concentration

Max. 8-hr X/Q ¹	Max. Modeled CO 8-hr Conc. ($\mu\text{g}/\text{m}^3$)	CO 8-hour Concentration ($\mu\text{g}/\text{m}^3$)			CO 8-Hour Standard ($\mu\text{g}/\text{m}^3$)		Exceed Standard?
		Max. Modeled	Background ³	Total	California	Federal	
7.52	334.12	250.59	6057.0	6,307.6	10000	10000	NO

¹ Obtained from ISCST3 modeling

² Max. 1-hour value from Escondido E. Valley Parkway station 1997-1999 SDAPCD (10 ppm, or 11,429 $\mu\text{g}/\text{m}^3$ CO)

² Max. 8-hour value from Escondido E. Valley Parkway station 1997-1999 CARB website data (5.3 ppm, or 6,057 $\mu\text{g}/\text{m}^3$ CO)

AIR QUALITY IMPACT ANALYSIS AND RULE 1200 EVALUATION

Prepared for: CalPeak Power, LLC
CalPeak Enterprise No. 7 Site

SRA Scientific Resources Associated
927 Wilbur Suite 1
San Diego, CA 92109

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1.0 INTRODUCTION

As described in the Equipment Description, CalPeak Power, LLC (CalPeak) is proposing to construct a Pratt & Whitney FT-8 Twin Pac simple-cycle, natural gas-fired peaking unit at an undeveloped site in Escondido. The rated electric power output for the Twin Pac unit is 49.5 MW. The AQIA and Rule 1200 evaluations are based on the assumption that the project will operate for 8760 hours per year, and natural gas will be the only fuel used in the turbine. The purpose of the new gas turbine will be to generate electricity for sale on the California Independent System Operator (CalISO) grid.

According to Rule 20.3, New Source Review, an AQIA is required for new or modified facilities that result in an emissions increase above the AQIA trigger levels in Table 20.3-1, as shown below:

**Table 1
Rule 20.3
AQIA Trigger Levels**

Air Contaminant	TRIGGER LEVELS		
	lb/hr	lb/day	tons/yr
Particulate Matter (PM10)	--	100	15
Oxides of Nitrogen (NOx)	25	250	40
Oxides of Sulfur (SOx)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	--	3.2	0.6

Emission estimates for the FT-8 Twin Pac turbines were provided by Pratt & Whitney. For the purpose of conducting the AQIA, it was conservatively assumed that the unit will be equipped with an SCR that will control NOx emissions to no more than 5 ppm at 15% O₂. Actual proposed NOx emission limits are: 2.0 ppm (annual average of hours operated), 2.5 ppm (24-hour average), and 3.0 ppm (3-hour average). As the BACT analysis indicates, the unit will also be equipped with an oxidation catalyst with a guaranteed emission rate for CO of 6 ppm at 15% O₂. The oxidation catalyst will also reduce emissions of VOCs. In addition, natural gas firing and efficient combustion practices will be used to minimize PM10, SOx, and VOC emissions. Based on these assumptions for the emission estimates, the annual emissions of NOx are above the AQIA trigger level, and an AQIA is therefore required for NOx. The emission estimates are shown in Table 2 below.

TABLE 2
Emission Estimates
FT-8 Twin Pac

Air Contaminant	EMISSIONS			AQIA Triggered?
	lb/hr	lb/day	tons/yr	
Particulate Matter (PM10)	3.33	79.9	14.6	No
Oxides of Nitrogen (NOx)	10.3	247.2	45.11	Yes
Oxides of Sulfur (SOx)	1.70	40.8	7.4	No
Carbon Monoxide (CO)	7.54	181.0	33.0	No
Lead and Lead Compounds	N/A	N/A	N/A	N/A

In addition to the evaluation of the potential impacts with controlled emissions, the San Diego Air Pollution Control District has also requested that CalPeak evaluate the potential impacts with uncontrolled emissions. Based on emission estimates for uncontrolled emissions, the requirement for an AQIA will be triggered for NOx and CO.

Because the requirement for an AQIA is triggered by the NOx emissions on a basis of 5 ppmv NOx, and for NOx and CO emissions under an uncontrolled operational scenario, an AQIA has been performed for NO₂ and CO to demonstrate that the proposed project will not:

- (A) cause a violation of a state or national ambient air quality standard anywhere that does not already exceed such standard, nor
- (B) cause additional violations of a national ambient air quality standard anywhere the standard is already being exceeded, nor
- (C) cause additional violations of a state ambient air quality standard anywhere the standard is already being exceeded, except as provided for in Subsection (d)(2)(v), nor
- (D) prevent or interfere with the attainment or maintenance of any state or national ambient air quality standard.

The relevant ambient air quality standards are shown in Table 3 below.

**Table 3
Ambient Air Quality Standards**

POLLUTANT	AVERAGING TIME	CAAQS	NAAQS	
			PRIMARY	SECONDARY
O ₃	1 Hour	180	235	235
CO	8 Hour	10,000	10,000	
	1 Hour	23,000	40,000	
NO ₂	Annual Average		100	100
	1 Hour	470		
SO ₂	Annual Average		80	
	24 Hour	105	365	
	3 Hour			1,300
	1 Hour	655		
PM ₁₀	Annual Geometric Mean	30		
	24 Hour	50	150	150
	Annual Arithmetic Mean		50	50
Sulfates	24 Hour	25		
Pb	30-Day Average Calendar Quarter	1.5		
			1.5	1.5
Hydrogen Sulfide	1 Hour	42		
Vinyl Chloride	24 Hour	26		
Visibility Reducing Particles	8 Hour	Extinction Coefficient > 0.23 per kilometer		

In addition to conducting an AQIA, in accordance with the requirements of San Diego APCD Rule 1200, the facility must demonstrate that the increase in maximum incremental cancer risk at every receptor location is equal to or less than one in one million for any project for which new, relocated, or modified emission units that increases maximum incremental cancer risk are not equipped with T-BACT; or the increase in maximum incremental cancer risk at every receptor location is equal to or less than ten in one million provided the emission units are equipped with T-BACT. Furthermore, the provisions of Rule 1200 require that the increase in the total acute noncancer health hazard index at every receptor must be equal to or less than one, and that the total chronic noncancer health hazard index at every receptor must be equal to

or less than one, unless the Air Pollution Control Officer determines that an alternate total hazard index is sufficiently health protective.

The following sections present the background ambient air quality and attainment status with regard to NO₂ and CO; the meteorological data and a discussion of its representativeness for the Enterprise site; the results of the ambient air quality analysis, including a discussion of the approach in conducting the analysis; and the results of the Rule 1200 health risk analysis.

2.0 BACKGROUND AMBIENT AIR QUALITY

According to the requirements for conducting an AQIA, the initial step is to ascertain the existing background ambient air quality for the pollutants that are to be considered in the AQIA. The nearest monitoring station to the CalPeak Enterprise facility is the Escondido-East Valley Parkway station located in Escondido. Table 4 presents the NO₂ and CO background ambient air quality for 1997-1999 for this monitoring station.

Table 4
Highest Background Ambient Air Quality
 (micrograms/cubic meter)

Monitoring Station	1997	1998	1999	CAAQS	NAAQS
Nitrogen Dioxide					
1-Hour					
Escondido	227.2	172.7	187.8	470	N/A
Annual Average					
Escondido	39.4	33.8	43.2	N/A	100
Carbon Dioxide					
1-Hour					
Escondido	10,286	11,429	11,429	23,000	40,000
8-Hour					
Escondido	5,611	5,291	6,057	10,000	10,000

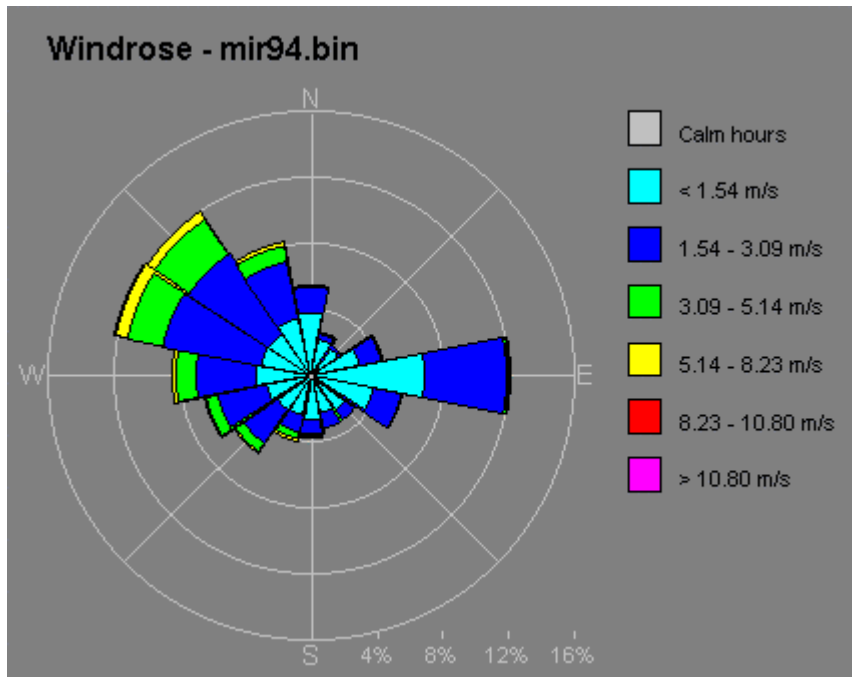
The background ambient air quality data indicate that the San Diego Air Basin is currently attaining the National Ambient Air Quality Standard (NAAQS) and the California Ambient Air Quality Standard (CAAQS) for NO₂ and CO.

3.0 METEOROLOGICAL DATA

The CalPeak Enterprise site is located near the San Diego Gas & Electric property off Enterprise Street in Escondido. The climate of the site, and all of San Diego, is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. Because of the site's inland location, surface meteorological data collected at the Marine Corps Air Station (MCAS) Miramar site were used to conduct the air quality impact analysis. Upper air data from MCAS Miramar were used for the mixing height, as Miramar is the closest upper air station at which mixing heights are measured.

Figure 1 presents a wind rose from MCAS Miramar. The wind rose indicates the general wind direction at the site. Three sequential years of meteorological data (1992 through 1994) were used in the air dispersion modeling. Because the meteorological data do not vary substantially from year to year, the data were considered to be representative of meteorological conditions at the site.

FIGURE 1. WIND ROSE – MCAS MIRAMAR



4.0 AIR QUALITY IMPACT ANALYSIS

This section presents the results of the AQIA that was conducted to demonstrate that the proposed project would not cause or contribute to a violation of an ambient air quality standard.

4.1 MODELING APPROACH AND ASSUMPTIONS

Table 5 presents the stack parameters for the FT-8 Twin Pac that were used in the AQIA, and the modeling parameters for the proposed project. For the purpose of conducting the AQIA, the worst case operating scenario for NO_x emissions was chosen to evaluate the maximum potential impacts associated with the facility's operations.

Table 5
Stack Parameters
CalPeak Enterprise Facility

PARAMETER	VALUE
Average High Heating Value of Fuel	1,020 BTU/SCF
Stack Height	50 feet minimum
Stack Diameter	12 feet
Stack Exit Temperature	700 F
Stack Exit Volumetric Flow	786,547 ACFM
Stack Exit Velocity	115.91 ft/s
Fuel Flow	0.492 MSCF/hr

The Industrial Source Complex Short Term 3 (ISCST3) model, version 10100, was used for the AQIA. The ISCST3 model receptor grid was set up as follows: 50-meter spacing along the property boundary and from the facility boundary to 200-meter distance; 100-meter spacing from 200 meters to 1 kilometer; and 200-meter spacing from 1 kilometer to 5 kilometers. The receptor grid was sufficiently large to include areas of high terrain, including higher elevations west of the site. In addition, a 50-meter grid was sited where the initial modeling effort indicated the maximum impacts would be predicted. Table 6 presents the ISCST3 model option settings that were used in the modeling effort.

Table 6
ISCST3 Model Option Settings

Model Option	Setting
Model Calculates	Concentration
Receptor Grid System	Cartesian
Terrain Elevations Read	Yes
Calm Processing Used	Yes
Dispersion Coefficients	Rural
Stack Tip Downwash	Yes
Gradual Plume Rise	Yes
Buoyancy-Induced Dispersion	Yes
Wind Profile Exponent Values	Default
Vertical Potential Temperature Gradient	Default
Building Downwash	Included

Because the site is located in a developed area, rural dispersion coefficients were appropriate for the proposed facility. A review of land use within 3 km of the site indicates that less than 50% of the area is developed, and therefore the area would not experience urban effects.

Building downwash was taken into account using the USEPA's BPIP model (USEPA 1995) which is the most recent version of the building downwash model available. In accordance with USEPA guidelines, building downwash must be considered if the stack heights are less than "Good Engineering Practice" (GEP) heights. GEP heights can be calculated by the following equation:

$$H_s = H_b + 1.5L$$

Where

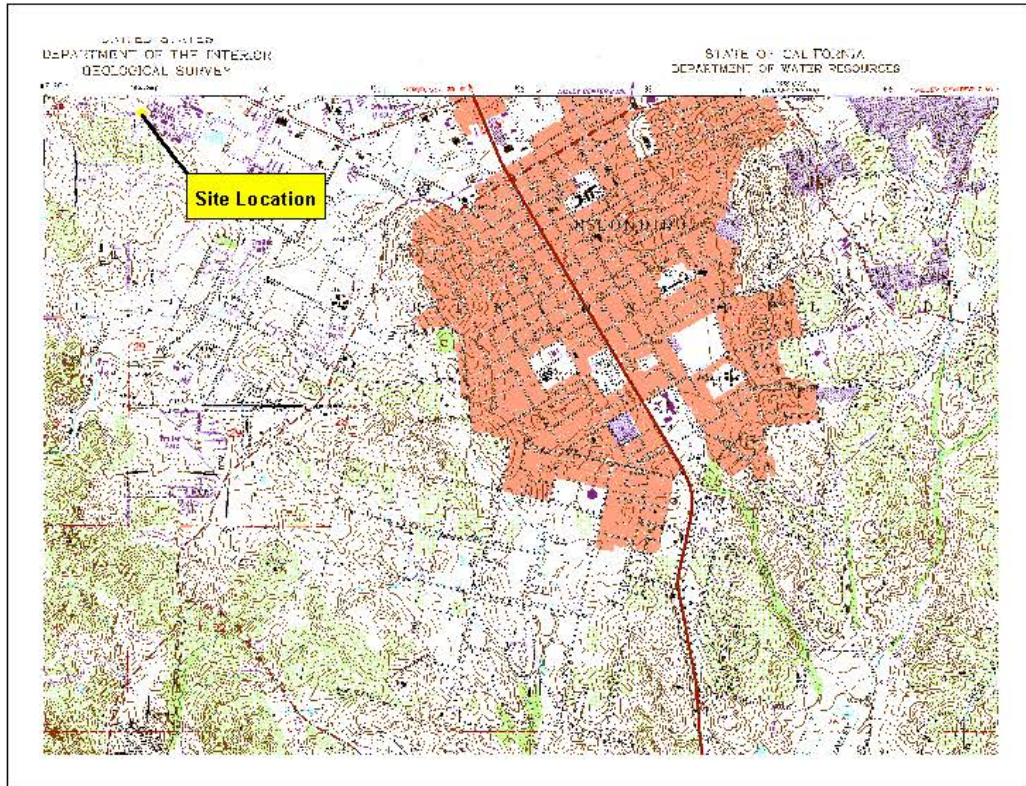
H_s = GEP stack height

H_b = building height

L = lowest of building height, width, or length

The GEP formula indicates whether emissions from a stack will be affected by downwash associated with nearby buildings. Building dimensions were obtained from the existing facility, surrounding buildings, and Pratt & Whitney information regarding the turbine housing and configuration. The facility location is shown in Figure 2. The proposed minimum stack height of 52.5 feet is below the GEP stack height, and building downwash must be considered.

In accordance with USEPA guidelines, all buildings within 5L should be included in the building downwash modeling, where L = the lesser of the building width and length. Because the SCR housing would dominate any downwash effects expected, the SCR housing was the only structure that was included in the modeling analysis. The other structures on or near the stack would be small support structures that would not exceed 1 story in height. The SCR housing was assumed to be a rectangular structure with dimensions 14 ft. wide X 67 ft. long X 42 ft. high.



CalPeak Enterprise No. 7 Site Facility Location

SRA Scientific Resources Associated

Figure 2

4.2 MODEL RESULTS

This section presents the results of the AQIA for NO₂ and CO as required under Rule 20.3.

To evaluate compliance with the ambient air quality standards, NO₂ impacts were modeled for 1-hour and annual averaging times. CO impacts were modeled for 1-hour and 8-hour averaging times. Table 7 presents the results of the AQIA for operational impacts for the FT-8 Twin Pac. The maximum predicted concentrations of NO₂ and CO were added to the highest ambient background NO₂ and CO concentrations, respectively, to obtain an estimate of the maximum impacted predicted. As shown in the table, all impacts are below the CAAQS and NAAQS. Therefore, the AQIA indicates that the project will comply with the requirements of Rule 20.3.

Table 7
AQIA Modeling Results
µg/m³

Pollutant	Averaging Time	Maximum Predicted Impact ¹	Impact + Background ²	NAAQS	CAAQS
CONTROLLED, 5 PPM NOX					
NO ₂	Annual	0.64	43.8	100	
	1 Hour	10.56	237.8		470
UNCONTROLLED					
NO ₂	Annual	4.98	48.2	100	
	1 Hour	82.19	309.4		470
UNCONTROLLED³					
CO	8 Hour	250.6	6,308	10,000	10,000
	1 Hour ⁴	361.4	11,790	40,000	23,000

¹Default ARM of 0.75 assumed for annual impacts to account for ozone-limited conversion of NO to NO₂.

²Maximum background concentration from 1997-1999 for the Escondido monitoring station.

³Based on worst-case uncontrolled emissions at 75% load.

⁴Maximum background concentration from 1997-1999 for the Escondido monitoring station.

5.0 RULE 1200 EVALUATION

Under the requirements of San Diego APCD Rule 1200, new sources must demonstrate that emissions of toxic air contaminants (TACs) do not exceed specified health risk limits at all off-site receptor locations where the public may be exposed to the emissions. The locations of concern include residences, businesses, schools, day care centers, hospitals, government facilities, retirement homes or any location where public access is possible. Rule 1200 requires an evaluation of both cancer and noncancer chronic health risks, and of acute noncancer risks. Rule 1200 requires that the excess cancer risks associated with facility TAC emissions are less than one in one million without implementation of toxics best available control technology (TBACT), and less than ten in one million with implementation of TBACT. Rule 1200 also requires that the noncancer hazard indices for both chronic and acute noncancer risks be below 1.0.

To determine whether the proposed project would be in compliance with the requirements of Rule 1200, a health risk evaluation of TAC emissions from the project was conducted. The first step in the evaluation was to estimate emissions of TACs from the project's operations. The second step in the evaluation was to estimate the maximum impacts associated with TAC emissions using air quality modeling. The final step in the evaluation was to compare the estimated health risks associated with exposure to the maximum concentrations of TACs predicted for the project's operations.

5.1 TOXIC AIR CONTAMINANT EMISSION ESTIMATES

The FT-8 Twin Pac proposed for the CalPeak Enterprise facility will be fired exclusively with natural gas. TAC emission factors for gas turbines were obtained by reviewing relevant databases for turbines firing natural gas. In accordance with San Diego APCD guidance for simple-cycle gas turbines with SCR, impacts associated with ammonia and organic compounds are required to be evaluated.

To estimate emissions of organic compounds from natural gas combustion, the U.S. EPA's AP-42 emission factors (AP-42, Section 3.1, Stationary Gas Turbines, Table 3.1-3) were used. For PAHs, discussions with the San Joaquin Valley Unified Air Pollution Control District indicate that the PAH factor published by the EPA includes naphthalene. Because naphthalene is noncarcinogenic, the naphthalene portion of the PAHs (from the EPA's AP-42 emission factors, which were derived from the same source test data as the general PAH emission factor) was subtracted from the PAH emission factor. Source test data has been requested from the San Joaquin Valley Unified Air Pollution Control District and will be forwarded to the District upon receipt. Furthermore, the emission factors from AP-42 are conservative because they are for natural gas combustion in uncontrolled turbines. The turbines will be equipped with SCR and an oxidation catalyst. The oxidation catalyst will reduce the emissions of all organic compounds as well as CO and VOCs. An emission estimate for ammonia was calculated assuming 10 ppm slip from SCR and project heat rate conditions at 100% operating capacity.

**Table 8
Toxic Air Contaminant Emissions**

TAC	Emission Factor lb/MMBTU	Maximum Hourly Emissions lbs/hr	Maximum Hourly Emissions g/s	Annual Emissions lbs/yr	Annual Emissions g/s
Ammonia	10 ppm slip	7.6	0.958	6.6E+04	0.958
Acetaldehyde	4.0E-05	2.01E-02	2.53E-03	176	2.53E-03
Acrolein	6.4E-06	3.2E-02	4.05E-04	28.2	4.05E-04
Benzene	1.2E-05	6.03E-03	7.59E-04	52.8	7.59E-04
1,3-Butadiene	4.3E-07	2.16E-04	2.72E-05	1.89	2.72E-05
Ethylbenzene	3.2E-05	1.61E-02	2.02E-03	141	2.02E-03
Formaldehyde	7.1E-04	3.56E-01	4.49E-02	3,120	4.49E-02
Naphthalene	1.3E-06	6.53E-04	8.22E-05	5.72	8.22E-05
PAHs	9.0E-07	4.52E-04	5.69E-05	3.96	5.69E-05
Propylene Oxide	2.9E-05	1.46E-02	1.83E-03	128	1.83E-03
Toluene	1.3E-04	6.53E-02	8.22E-03	572	8.22E-03
Xylenes	6.4E-05	3.21E-02	4.05E-03	282	4.05E-03

5.2 HEALTH RISK ASSESSMENT

To estimate the potential health risks associated with exposure to TACs emitted from the project, it was first necessary to estimate the concentrations of TACs at the maximum impact point. The approach used to estimate maximum concentrations is the same as the approach that was used to conduct the air dispersion modeling for the AQIA, and is described in Section 4 above.

The source emission rate in the ISCST3 model was assumed to be 1 gm/sec. As a result, for each source, model predicted concentrations at each receptor location is a dilution factor, X/Q (chi over Q), or a predicted concentration per 1 gm/sec of emission. For each TAC, cancer risk is the annual average TAC emission rate multiplied by the X/Q , the cancer unit risk factor. For multipathway pollutants (in this case, PAHs), a multipathway factor was included in the risk calculations to account for the potential for multipathway health effects (i.e., effects due to oral exposure and routes other than inhalation). For conservative purposes, the multipathway factor recommended by Tom Weeks of the San Diego Air Pollution Control District for benzo(a)pyrene was used to estimate multipathway effects from all PAHs. The multipathway factor is 7.12, and is multiplied by the inhalation excess cancer risk to estimate a total risk due to exposure to PAHs. The chronic HI is the annual average TAC emission rate multiplied by the X/Q ,

then divided by the chronic REL. The acute HI is the maximum one-hour TAC emission rate multiplied by the X/Q, then divided by the acute REL.

The cancer unit risk factors (URF) and noncancer reference exposure levels (RELs) were obtained from the most recent-approved values released by the California Office of Environmental Health Hazard Assessment (OEHHA) in February 1999 (acute RELs), June 1999 (URFs), and May 2000 (chronic RELs). Table 9 presents a summary of the TACs and their corresponding toxicity factors and target organ systems for noncancer risks.

**Table 9
Toxicity Values
Toxic Air Contaminants**

TAC	URF, ($\mu\text{g}/\text{m}^3$)⁻¹	Chronic REL, $\mu\text{g}/\text{m}^3$	Chronic Target Organ(s)¹	Acute REL, $\mu\text{g}/\text{m}^3$	Acute Target Organ(s)¹
Ammonia	N/A	200	RES	3200	RES
Acetaldehyde	2.7E-06	9	RES	N/A	
Acrolein	N/A	2.0E-02		0.19	RES, EYE
Benzene	2.9E-05	200	CNS, REP, CV	3200	REP
1,3-Butadiene	1.7E-04	N/A		N/A	
Ethylbenzene	N/A	2000	REP, LIV, KID	N/A	
Formaldehyde	6.00E-06	3	RES, EYE	94	RES, EYE
Naphthalene	N/A	9	RES	N/A	
PAHs	1.7E-03	N/A		N/A	
Propylene Oxide	3.7E-06	30	RES	3100	RES, EYE
Toluene	N/A	300	CNS, RES, REP	37000	CNS, RES
Xylenes	N/A	700	CNS, RES	22000	RES, EYE

¹RES=respiratory system; CV=cardiovascular system; CNS=central nervous system; IMM=immunological system; KID=kidney; LIV=liver, alimentary system; REP=reproductive system, developmental system; EYE=eyes; SK=skin

To be conservative, the maximum annual average and maximum hourly concentrations at any receptor location (grid or fence line) due to emissions from the turbine were selected as the location of the point of maximum impact or maximum exposed individual (MEI). The selection was made without considering whether anyone actually lives or works at that location. Health risk calculations were conducted for the MEI to determine whether the estimated health risks are below the Rule 1200 criteria for acceptable risks. For conservative purposes, the excess cancer risks and hazard quotients calculated for individual pollutants were summed over all pollutants regardless of toxic endpoint.

The health risk modeling results indicated that the risks were below the Rule 1200 criteria for excess cancer risks, chronic noncancer risks, and acute noncancer risks. The results of the health risk evaluation are presented in Table 10. The excess cancer risks based on the emission factors from AP-42 and the conservative assumptions inherent in the emission estimate for uncontrolled sources as well as the use of the multipathway factor for benzo(a)pyrene to represent the multipathway health effects of all PAHs leads to the conclusion that the excess cancer risks are likely overestimated. The risks presented in Table 10 are based on 8760 hours of operation per year.

Table 10
Results of Health Risk Calculations

	Risk Estimate	Rule 1200 Criterion	Above Criterion?
Excess Cancer Risk	0.656 in 1 million	1 in 1 million	No
Chronic HI	0.027	1	No
Acute HI	0.024	1	No

As shown in Table 10, the risks associated with emissions from the CalPeak Enterprise No. 7 facility are below the Rule 1200 thresholds for uncontrolled sources to utilize TBACT. Therefore, the project will be in compliance with Rule 1200 and no further controls are required.

APPENDIX B

**CITY OF ESCONDIDO RESPONSE TO CALPEAK ENTERPRISE #7
APPLICATION FOR CERTIFICATION MAY 17, 2001**

May 17, 2001

Mr. Robert Worl
California Energy Commission
1516 9th Street, MS 3000
Sacramento, CA 95814

RE: Proposed CalPeak Natural Gas Fueled Power Plant in Escondido

The purpose of this letter is to assist your staff in their analysis of the Calpeak application and to provide you with a preliminary list of conditions that we would normally review with the City's Design Review Board and Planning Commission during the Conditional Use Permit process. As we have discussed, the City continues to assert that a Conditional Use Permit must still be obtained notwithstanding the pending CEC review of the Calpeak Power Plant.

As you may be aware, the Calpeak site presents several sensitivities in light of its visibility from the north, and its proximity to the Quail Hills Specific Plan. The Quail Hills Specific Plan is approximately 210 acres in size, and is the last remaining industrial land in the city. A high quality, business park is envisioned for this area. As you may be aware, Sempra Energy and JRM Real Estate are currently processing a comprehensive revision to this Specific Plan that includes a 500 MW power plant.

Staff will be working extensively with Sempra and JRM to achieve a high quality design that will be compatible with surrounding areas. A number of measures have already been incorporated into the Sempra design to minimize impacts. Both existing and manmade topography will be used to screen the plant. Relatively deep excavations are planned to lower its profile and berms are also planned to provide further buffers. We intend to work with Calpeak to achieve the same level of screening.

In light of Calpeak's visible location, we believe minimum 10' high, heavily landscaped berms should be placed around the western and northern portions of the site to reduce visual impacts as well as reduce the apparent height of the required noise walls, which should be placed on top of the berms.

Our understanding is that you intend to make a determination as to data adequacy on May 17. We request that you expand the cumulative air quality study and request that more localized meteorological information be incorporated.

As you may know, the facility is relatively close to the recently approved RAMCO peaker plant, and abuts the Sempra plant, which has now been submitted along with modifications to the Quail Hills Specific Plan. Numerous questions have been raised regarding the cumulative air quality impacts. We believe the air quality analysis should be revised to include a health-risk analysis of the RAMCO as well as the Sempra power

plants. This analysis should be based on more localized meteorological conditions as previously mentioned in this letter.

According to the plans submitted to the City by CalPeak Power, there would be three potential laydown or staging areas involved in the project. These include a portion of the parking lot of the existing SDG&E Mission substation, an area to the west of the proposed facility site within the existing SDG&E transmission line right-of-way, and an area to the south of the proposed site within an abandoned orchard. It is our understanding that the applicant has eliminated the western staging area that contains Coastal Sage Scrub. We are supportive of this decision.

Our preliminary, draft conditions have been organized into issue areas to assist your staff. However, please note that they are only preliminary, staff comments that have not been reviewed by either the Planning Commission, Design Review Board, or public. Therefore, they can in no way be considered final. It is possible that they could change significantly as they proceed through the public hearing process. Additionally, it is our understanding that the facility will only utilize natural gas and is required to be converted to a combined cycle facility within three years. Please let me know if our understanding is incorrect. Please contact me at (760) 839-4543 if you need any more information or have any questions.

Sincerely,

Jonathan Brindle AICP
Assistant Planning Director

**STAFF RECOMMENDED CONDITIONS OF APPROVAL
CALPEAK NATURAL GAS FUELED POWER PLANT
201 NORTH ENTERPRISE STREET
ESCONDIDO, CALIFORNIA**

The California Environmental Quality Act (CEQA) grants local agencies the authority to determine compliance with CEQA's provisions. It is the City's position that the required CEQA review procedures are essential in determining the impacts of this application in light of the approved and probable future projects, which includes a pending 500 MW power plant on the adjacent property. Therefore, the City intends to utilize its full authority to require necessary CEQA studies.

Escondido Zoning Code Section 33-1202 requires that a public hearing by the Planning Commission be held for any Conditional Use Permit application, where neighbors, the applicant and staff have the opportunity to present evidence. Based on the evidence presented to the Planning Commission (and/or City Council in the case of an appeal), conditions may be modified, added or deleted by the Commission or Council. The following is staff's recommended conditions only.

General

1. Prior to or concurrent with the issuance of building permits, the appropriate development fees shall be paid in accordance with the prevailing fee schedule in effect at the time of building permit issuance, to the satisfaction of the Director of Planning and Building.
2. All construction and grading shall comply with all applicable requirements of the Escondido Zoning Code and requirements of the Planning Department, Director of Building, and the Fire Chief.
3. If blasting is to occur, verification of a San Diego County Explosive Permit and a policy or certificate of public liability insurance shall be filed with the Fire Chief and City Engineer prior to any blasting within the City of Escondido. Any blasting shall comply with the provisions of Section 7705 of the City of Escondido Municipal Code.
4. Prior to building permit issuance, evidence of all right-of-way agreements involved in the installation of gas and electrical lines necessary to make the proposed plant fully functional shall be submitted to the satisfaction of the City of Escondido's Planning Division.
5. Prior to building permit issuance, the following measures shall be completed including:
 - a. Providing documentation to the Planning Division from the San Diego APCD that all final conditions of construction have been met, and that all emission levels described in the applicant's Air Quality Impact Analysis are accurate. APCD approval shall include a measure of the cumulative air quality impacts

of approved and pending projects in the vicinity. Specifically, the proposed adjacent Sempra project and pending RAMCO peaker plant should be included in the cumulative impact analysis. Provisions for the submittal of air monitoring information to the City of Escondido shall be executed to the satisfaction of the Director of Planning and Building and City Attorney's Office.

- b. Completing an acoustical analysis of the final plant design submitted for building permits to the satisfaction of the Director of Planning and Building in accordance with Sections 17-226-17-259 of the Escondido Municipal Code. The analysis shall be based on the manufacturer's data or engineering estimates for major noise generating sources (engine air intakes, turbine exhaust, high pressure natural gas compressor, high volume air blower, absorption chillers, pumps and direct equipment noise radiation, and other noise sources). The analysis and required mitigation must account for the appropriate levels of ambient noise (adjusted for the time of day), zoning categories, land uses, the distinctive sound characteristics of the facility, and nighttime and early morning operation.
 - c. Completing acoustical tests of the plant as soon as practical during the construction period. The report shall identify any supplemental noise control measures required noise standards at all property lines as adjusted to address late night and early morning operation and distinctive noise characteristics of the facility. The applicant shall implement any additional noise control measures identified in the report to the satisfaction of the Director of Planning and Building, prior to final occupancy.
 - d. Completing final acoustical tests of the plant within one (1) week of the completion of construction and document that required noise levels are achieved for surrounding uses. Documentation in the form of a Noise Monitoring Report shall be submitted to the satisfaction of the Director of Planning prior to occupancy. If this noise level exceeds the permitted noise threshold (adjusted for time of day, tonal characteristics, and ambient noise), plant operations shall cease and the plant design shall be modified to achieve the required level of noise reduction. In this case a new acoustical analysis shall be prepared and submitted to the Planning Division prior to operation.
6. Access for use of heavy fire fighting equipment as required by the Fire Chief shall be provided to the job site at the start of any construction and maintained until all construction is complete. Also, there shall be no stockpiling of combustible materials, and there shall be no foundation inspections given until on-site fire hydrants with adequate fire flow are in service to the satisfaction of the Fire Marshal.
 7. The legal description attached to the application has been provided by the applicant and neither the City of Escondido nor any of its employees assume responsibility for the accuracy of said legal description.

8. All requirements of the Public Art Partnership Program, Ordinance No. 86-70 shall be satisfied prior to building permit issuance. The ordinance requires that a public art fee be added at the time of the building permit issuance for the purpose of participating in the City Public Art Program.
9. Prior to building permit issuance/commencement of construction, all provisions for the containment, transport, and unloading of aqueous ammonia shall be approved by the City of Escondido Fire Department.
10. An inspection by the Planning Division shall be required prior to operation of the project. Everything should be installed prior to calling for an inspection, although preliminary inspections may be requested. Contact the project planner at 760-839-4671 to arrange an inspection.
11. The applicant shall submit copies of air quality compliance to the City of Escondido as well as to the APCD, as requested. The documentation submitted to the City shall address conformance with the emission levels included in the project description and Air Quality Impact Analysis, to the satisfaction of the Director of Planning and Building.
12. Pursuant to Government Code Section 66020(d)(1), NOTICE IS HEREBY GIVEN that the project is subject to certain fees described in the City's Development Fee Inventory on file in both the Departments of Planning and Building and Public Works Departments. The project is also subject to dedications, reservations, and exactions as specified in the conditions of approval. NOTICE IS FURTHER GIVEN that the 90-day period to protest the imposition of any fee, dedication, reservation, or other exaction described in this resolution begins on the effective date of this resolution and any such protest must be in a manner that complies with Section 66020.
13. Plans for all necessary fire protection facilities and improvements, including a fire hydrant, shall be approved by the City of Escondido's Fire Department prior to commencement of construction. Compliance with these measures shall be completed prior to occupancy prior to the satisfaction of the City's Fire Department.
14. CALARP, RMP, Hazardous Materials Management Plan, and Odor Management Plan shall be submitted to the satisfaction of the Fire Department prior to building permit issuance/commencement of construction.
15. If provided, trash enclosures must be designed and built per City standards.
16. The material colors utilized for the facility shall be earth or subdued tones, with no more than two main colors and one accent color, to the satisfaction of the Planning Division. No primary colors shall be utilized. The colors shall be indicated on building plans to the satisfaction of the Director of Planning and Building.
17. All proposed signage associated with the project must comply with the City of Escondido Sign Ordinance (Ord. 92-47).

18. No areas of Coastal Sage Scrub (CSS) on the subject property or in any of the staging areas are to be disturbed without prior concurrence that the impacts qualify as de-minimus (less than one cumulative acre of impact) or approval of a 4(d) Interim Habitat Loss Permit is granted by the City Council in consultation with the California Department of Fish and Game and United States Fish and Wildlife Service.
19. Mitigation for impacts on non-native grasslands shall be provided at a ratio of 0.5:1 and a 1:1 minimum ratio for any loss of CSS, by either off-site acquisition or contribution to a mitigation bank, to the satisfaction of the Planning Division in consultation with the California Department of Fish and Game and United States Fish and Wildlife Service.
20. Construction fencing or other appropriate barrier shall be installed and maintained around the existing CSS on the southerly slope of the subject property during grading and construction to ensure that the area is not disturbed, to the satisfaction of the Planning Division. Similar fencing or barrier shall be installed around any other remaining CSS areas to the satisfaction of the Director of Building and Planning.
21. Prior to building permit issuance/commencement of construction, the applicant shall provide detailed information to the satisfaction of the Director of Planning and Building, detailing measures to prevent detectable vibration and perceptible odors beyond the property lines as required by Section 33-570 of the Escondido Zoning Code.
22. Prior to building permit issuance, an agreement/covenant shall be executed to the satisfaction of the City Attorney's office and Director of Planning and Building that the emission levels and hours of operation will be as described in the project submittals and as approved by the APCD. City approval will be required prior to any modifications.
23. Laydown or staging activities are to only occur in the proposed SDG&E Mission substation parking lot, the area to the south of the facility, or other acceptable location to the satisfaction of the City Engineer.

Landscaping

1. Five (5) copies of detailed landscape and irrigation plan(s) shall be submitted prior to issuance of Grading or Building permits/commencement of construction, and shall be equivalent or superior to the concept plan submitted on April 11, 2001, to the satisfaction of the Planning Department. A plan check fee will be collected at the time of submittal. The required landscape and irrigation plan(s) shall comply with the provisions, requirements and standards in Ordinance 93-12. The plans shall be prepared by, or under the supervision of a licensed landscape architect.
2. In compliance with Article 62 (Landscape Standards, Section 1327 (Slope Planting) of the Zoning Code, all manufactured slopes over three feet high shall be

irrigated with a system approved by the City of Escondido and shall be landscaped as follows: Each 1000 SF of cut slope shall contain a minimum of six (6) trees, five (5) gallon in size; ten (10) shrubs, one (1) gallon in size; and groundcover to provide one hundred percent coverage within one year of installation to the satisfaction of the Planning Division. Each 1000 SF of fill slope shall contain a minimum of six (6) trees, fifteen (15) gallon in size; ten (10) shrubs, five (5) gallon in size; and groundcover to provide one hundred (100) percent coverage within one (1) year of installation to the satisfaction of the Planning Division.

3. All manufactured slopes, or slopes cleared of vegetation shall be landscaped within thirty (30) days of completion of rough grading. If, for whatever reason, it is not practical to install the permanent landscaping, then an interim landscaping solution may be acceptable. The type of plant material, irrigation and the method of application shall be to the satisfaction of the Planning Department and City Engineer.
4. Prior to final inspection and release for occupancy, all required landscape improvements shall be installed and all vegetation growing in an established, flourishing manner. The required landscaped areas shall be free of all foreign matter, weeds and plant material not approved as part of the landscape plan. All irrigation shall be maintained in fully operational condition.
5. In accordance with the Escondido Landscape Ordinance and Design Guidelines, street trees shall be provided along every frontage within or adjacent to this industrial development in conformance with the Escondido Landscape Ordinance and Street Tree list. The type, size and location of trees shall be to the satisfaction of the Director of Planning and Building and the City Engineer pursuant to the Escondido Parkway Tree Planting Plan.
6. Per the Tree Preservation Ordinance, a protected tree (any oak which has a ten inch or greater diameter breast height) which is removed, shall be replaced at a minimum 2:1 ratio with minimum 24"-box sized trees. The number, type and size of replacement trees shall be to the satisfaction of the Director of Planning and Building.
7. The proposed perimeter fencing shall be constructed out of decorative material, i.e. wrought iron, to the satisfaction of the Planning Department and shall be shown on the landscape plan.
8. The installation of the landscaping and irrigation shall be inspected and documented to the City of Escondido by the project landscape architect prior to occupancy. He/she shall complete a Landscape Certificate of Compliance certifying that the installation is in substantial compliance with the approved landscape and irrigation plans and City standards.
9. A minimum 10' high, heavily landscaped berm shall be provided along the western and northern property lines. Additionally, walls of the following heights shall be

placed on the top of the berm to address the recommendations of the noise study and potential visual issues:

North- 5'
West- 20'

The required wall shall utilize a decorative design of either split-face block or other architectural design reflecting the materials and color of the primary structures.

10. A minimum 20' wall shall be provided along the southern property line. The wall shall utilize a decorative design of either split-face block or other architectural design reflecting the materials and color of the primary structures.
11. A minimum 15' wall shall be provided along the eastern property line. The wall shall utilize a decorative design of either split-face block or other architectural design reflecting the materials and color of the primary structures
12. New landscaping shall be added to the exterior side of all sound/screen walls to soften their appearance, to the satisfaction of the Planning Division. This shall include a combination of trees, shrubs and climbing vines.
13. The landscape and irrigation on the slope along the northern property line shall be installed or upgraded/refurbished to conform to the existing slope planting requirements in the Landscape Ordinance.

ENGINEERING CONDITIONS OF APPROVAL

201 North Enterprise Street
2001-10-CUP, ER 2001-07

STREET IMPROVEMENTS AND TRAFFIC

1. All gated entrances shall be designed and improved to the satisfaction of the City Engineer.

GRADING

1. A site grading and erosion control plan shall be approved by the Engineering Department prior to issuance of building permits.
2. The first submittal of the grading plan shall be accompanied by 3 copies of the preliminary soils and geotechnical report. The soils engineer will be required to indicate in the soils report that he/she has reviewed the grading design and found it to be in conformance with his/her recommendations. This review shall include an analysis of the stability of all existing slopes.
3. All private driveways and parking areas shall be paved with a minimum of 3" AC over 6" of AB or 5 1/2" PCC over 6" AB. All paved areas exceeding 15% slope or less than 1.0% shall be paved with PCC.
4. Erosion control, including riprap, interim sloping planting, sandbags, or other erosion control measures shall be provided to control sediment and silt from the project. The developer shall be responsible for maintaining all erosion control facilities throughout the development of the project.
5. All blasting operations performed in connection with the improvement of the project shall conform to the City of Escondido Blasting Operations Ordinance.
6. A General Construction Activity Storm Water Permit is required from the State Water Resources Board for all storm water discharges associated with a construction activity.

*All site grading and erosion control plans shall be prepared by a Registered Civil Engineer. A separate submittal to the Engineering Department is required for the site grading and erosion control plans. Plans will **not** be forwarded from the Building Department.*

DRAINAGE

1. Final on-site and off-site storm drain improvements shall be determined to the satisfaction of the City Engineer and shall be based on a drainage study to be

prepared by the engineer of work. The drainage study shall be in conformance with the City of Escondido Design Standards.

WATER SUPPLY

1. Fire hydrants together with an adequate water supply shall be installed at locations approved by the Fire Marshal.
2. This project is located within the Rincon Del Diablo Municipal Water District. It will be the developer's responsibility to make all arrangements with the Rincon District as may be necessary to provide water service for domestic use and fire protection.

SEWER

1. The existing public sewer main and all sewer easements on Plan S-1119 shall be shown on the site and grading plan.

SURVEYING AND MONUMENTATION

1. All property corners shall be monumented by a person authorized to practice land surveying and a Record of Survey Map (or Corner Record if appropriate) shall be recorded.

APPENDIX C

CALPEAK LLC REVISED LANDSCAPE PLAN FOR THE ENTERPRISE #7 ESCONDIDO SITE