Application for Certification Pursuant to 21-Day Emergency Permitting Process

CalPeak Power - Border, LLC

Submitted to California Energy Commission



San Diego, California



June 13, 2001



701 "B" Street , Suite 340 • San Diego, CA 92101 Tel: 619.239.1212 Fax: 619.239.1307 Email: calpeak@cchinckley.com

June 13, 2001

Mr. Robert Eller Emergency Project Manager California Energy Commission 1516 Ninth Street Sacramento, California 95814

Dear Mr. Eller:

Pursuant to the provisions of the California Emergency Power Plant 21-Day Permit Process, CalPeak Power - Border, LLC (CalPeak) hereby submits this Application for Certification seeking authority to construct and operate a new 49.5-megawatt peaking power plant in the City of San Diego, San Diego County, California. The power plant will be a simple-cycle peaking electric generation facility consisting of one FT8 Pratt & Whitney Twinpac gas turbine engine.

As an officer of CalPeak, I hereby attest under penalty of perjury that the contents of this application are true and accurate to the best of my knowledge.

Dated this^{13th}day of June 2001.

Sincerely,

KI

Charles C. Hinckley Project Director CalPeak Power, LLC

Enclosure

CALIFORNIA ENERGY COMMISSION EMERGENCY SITING PROCESS APPLICATION CHECKLIST

	REQUIREMENT	YES/NO	PAGE IN APPLICATION
1.0	Project Description		1; Figures 1, 2, 3
1.1	Project owner/operator (Name, title, address, phone)	Yes	1
1.2	Overview of power plant and linear facilities		1
1.3	Structure dimensions (size and height), plan and profile		4; Figure 6, Appendix A
1.4	Full size color photo of the site and rendering of proposed facility if available		4; Figures 3, 5, 7, 8, 9, 10, 11
1.5	Maximum foundation depth, cut and fill quantities		4; Figures 1, 2, 3
1.6	Conformance with California Building Code	Yes	5
1.7	Proposed operation (hours per year)	Yes	5
1.8	Expected on-line date		5
1.9	Proposed duration of operation (years)	Yes	5
1.10	Identify transmission interconnection facilities		6; Figure 6; Appendix B
1.11	Transmission interconnection application	Yes	7; Appendix B
1.12	"Down-stream" transmission facilities, if known	Yes	7; Appendix B
1.13	Fuel interconnection facilities		7
1.14	Fuel interconnection application	Yes	7; Appendix C
1.15	Water requirements and treatment	Yes	7
1.16	Water interconnection facilities (supply/discharge)		8
1.17	Source and quality of water supply	Yes	8
1.18	Water supply agreement/proof of water supply	Yes	8; Appendix D
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2.1	Site address (street, city, county)	Yes	9
2.2	Assessor's parcel number	Yes	9
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.		9; Appendix E
2.4	Existing site use	Yes	9
2.5	Existing site characteristics (paved, graded, etc.)	Yes	9
2.6	Layout of site (include plot plan)	Yes	9; Figure 6; Appendix A
2.7	Zoning and general plan designations of site and linear facilities		10
2.8	Ownership of site (name, address, phone)	Yes	10
2.9	Status of site control		10; Appendix F
2.10	Equipment laydown area - size and location		10; Figure 3
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3.1	Construction schedule		11; Table 1
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4.1	Status of negotiations and expected signing date	Yes	12

CALIFORNIA ENERGY COMMISSION EMERGENCY SITING PROCESS APPLICATION CHECKLIST

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5.3	Provide complete air permit application		13
5.4	Status of air permit application with air district		13; Appendix H
5.5	Status of offsets and/or mitigation fees, as required		13; Appendix G
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6.0	Noise		14
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6.3	Project noise level at nearest property line		16; Appendix I
6.4	Proposed mitigation if required		17; Appendix I
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7.1	Type and volume of hazardous materials on-site	Yes	18
7.2	Storage facilities and containment	Yes	18
8.0	Biological Resources	I	19
8.1	Legally protected species* and their habitat on site, adjacent to site and along right of way for linear facilities (*threatened or endangered species on State or federal lists, State fully protected species)		19; Appendix J
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8.3	Proposed mitigation as required		19
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9.3	Ownership of adjacent parcels – site and linears		21; Appendix E
9.4	Demographics of census tract where project is located (most current available)	Yes	21; Table 3
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10.1	Ability to serve letter from Fire District		22; Appendix K
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11.0	Traffic and Transportation		23
11.1	Level of Service (LOS) measurements on surrounding roads - a.m. and p.m. peaks		23; Tables 4, 5
11.2	Traffic Control Plan for roads during construction	Yes	24
11.3	Traffic impact of linear facility construction		25; Figures 3, 6
11.4	Equipment transport route	Yes	25; Figure 4
11.5	Parking requirements - workforce and equipment	Yes	25; Figure 3

*Section added.

CALIFORNIA ENERGY COMMISSION EMERGENCY SITING PROCESS APPLICATION CHECKLIST

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12.4	Spill Prevention/Water Quality Protection Plans		27		
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13.1	Identification of known historic/prehistoric sites	Yes	28; Appendix L		
13.2	Proposed mitigation if required	Yes	29		
13.3	Notification of Native Americans	Yes	30; Appendix M		
14.0	Paleontological Resources		30		
14.1	Identification of known paleontologic sites	Yes	30		
14.2	Proposed mitigation if required	Yes	31		
15.0	Visual Resources		32		
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15.2	Full size color photo of the site and rendering of proposed facility with any proposed visual mitigation if available		32; Figures 3, 5, 7, 8, 9, 10, 11		
16.0	Transmission System Engineering		32		
16.1	Conformance with Title 8, High Voltage Electrical Safety Orders, CPUC General Order 95 (or NESC), CPUC Rule 21, PTO Interconnection Requirements, and National Electric Code	Yes	32		
17.0	References*		32		

*Section added.

31765/Border (6/13/01/mc)

# APPLICATION FOR CERTIFICATION PURSUANT TO 21-DAY EMERGENCY PERMITTING PROCESS

# CALPEAK POWER - BORDER, LLC

Submitted to

California Energy Commission

Prepared for

# CalPeak Power LLC

Escondido, California

Prepared by

TRC Irvine, California

June 13, 2001

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APPENDIX K: Fire Department Will Serve Letter
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APPENDIX M: Native American Heritage Commission

## CALIFORNIA ENERGY COMMISSION APPLICATION FOR CERTIFICATION 21-DAY EMERGENCY PERMITTING PROCESS CALPEAK POWER - BORDER, LLC CITY OF SAN DIEGO

### **1.0 PROJECT DESCRIPTION**

CalPeak Power - Border, LLC (CalPeak) proposes to construct a simple-cycle peaking electric generation facility consisting of one FT8 Pratt & Whitney Twinpac, with two gas turbine engines and one 49.5 megawatt (MW) generator. The Project is called the CalPeak Power - Border, LLC Project (Project) and will be located in the Otay Mesa area of the City of San Diego, San Diego County, California (City) (see Figures 1, 2 and 3).

#### 1.1 PROJECT OWNER/OPERATOR (NAME, ADDRESS, PHONE)

CalPeak Power - Border, LLC Charles C. Hinckley Project Director 701 B Street, Suite 340 San Diego, CA 92101 (619) 239-1212 - phone (619) 239-1307 - fax

#### **1.2 OVERVIEW OF POWER PLANT AND LINEAR FACILITIES**

The Project involves the construction and operation of an electrical generation facility, which will have a 49.5-megawatt (MW) nominal rating at ISO conditions. The Project is intended to respond to the state of California initiative to bring additional power resources on-line by no later than September 30, 2001.

CalPeak has a verbal agreement with the California Department of Water Resources (DWR) for a power purchase agreement for the power from this Project under a minimum 10-year agreement. The DWR and the state of California consider it essential that the state's predicted power shortfall be alleviated by additional generation resources. The power purchase agreement between CalPeak and DWR for the power from the Project is expected to be finalized in June 2001. The contact is Tera Nolan, of Navigant: (916) 852-1300.

SDG&E will supply the facility with low-sulfur (low-polluting) natural gas, thereby minimizing the potential for sulfur dioxide (SO₂) or particulate matter (PM₁₀) emissions. In addition, the facility will utilize Best Available Control Technology (BACT) based on consideration of the most stringent federal, state and local requirements for simple cycle gas turbines. These include dry, low-NO_x (DLN) gas combustors and Selective Catalytic Reduction (SCR) for reduction of oxides of nitrogen (NO_x) emissions, and an oxidation catalyst to control emissions of carbon monoxide (CO) and volatile organic compounds (VOC). The California Air Resources Board (ARB) defines BACT for simple-cycle "peaker" sites as 5 parts per million (ppm) NO_x, 6 ppm CO and 2 ppm VOC. The controls placed on the Project will allow it to operate at 3 ppm NO_x, 6 ppm CO and 2 ppm VOCs. As a result, NO_x emissions will be below the current BACT standard by 2 ppm. Emissions of CO and VOC will be in compliance with the current BACT standard.

A reliable and proven technology to reduce  $NO_x$  emissions is SCR, which uses a solution of 19.5 percent ammonia and water (aqueous ammonia) as the reagent. The ammonia vapor (NH₃) is injected into the flue gases, which then pass through a catalyst material, reducing the  $NO_x$  to harmless nitrogen and water. The aqueous ammonia will be stored in an outdoor, horizontally mounted, single-walled storage tank capable of holding up to 12,000 gallons. Ammonia detectors with automatic alarms will be installed. In addition, the tank will be surrounded by a concrete containment area constructed at or below grade, capable of containing 110 percent of the capacity of the tank.

Aqueous ammonia will be delivered to the site by a local ammonia supply company. Aqueous ammonia is expected to be delivered once every 2 weeks in 6,000 gallon capacity California Department of Transportation (Caltrans)-certified trucks that are designated for ammonia transport and operated by a trained driver. The truck will travel along public roads permitted for hazardous materials transport. Specifically, it is anticipated that trucks will utilize Interstate 5 or Interstate 805 to Route 905, then travel east on Route 905 to Otay Mesa Road to Sanyo Avenue. Trucks will turn right (south) on Sanyo Avenue, proceed to the Project access road and turn right onto the Project site. The local roadway system is shown in Figure 4. Once onsite, the truck will be parked in a delivery area sloped toward the containment area such that any spill occurring during unloading will drain into the concrete containment area surrounding the ammonia tank.

A CalPeak operator will be present during aqueous ammonia deliveries. The aqueous ammonia solution handling system, as well as its operation and maintenance, will meet requirements of the California Accident Release Prevention (CalARP) regulations as administered by the County of San Diego Department of Environmental Health Services (DEHS). CalPeak is also working with the DEHS to prepare a required Risk Management Plan (RMP). The RMP will be approved and in effect prior to bringing aqueous ammonia onsite. The aqueous ammonia solution handling equipment has been designed according to the latest manufacturing codes for plant equipment.

#### Project Equipment and Operation

The equipment design includes a natural gas-fired combustion turbine generator (CTG) equipped with state-of-the-art air pollution control and noise abatement features. Specifically, the CTG set will be an FT8 Pratt & Whitney Twinpac. The Twinpac consists of three primary units: the gas turbine unit, the generator unit, and the electric/control unit (Figure 5). The Twinpac turbine and generator units consist of two opposed gas turbines directly connected through a diaphragm that is coupled to a single double-ended electric generator. The Twinpac offers flexibility in operation, providing the ability to operate one gas turbine while the other is shut down. This results in near full-load efficiency, even at half-load power. The lube oil system and generator will be air-cooled. The turbine/generator and electrical control units will be housed in all-weather steel enclosures that include lighting and electrical services. Fire protection equipment will be provided in the gas turbine enclosure.

The plant will be unstaffed and operated remotely. Plant operators will conduct periodic visits about twice a week. The facility will be configured in simple-cycle mode so that generated energy can be dispatched quickly to meet energy demand. The facility will be monitored on a 24-hour basis to respond quickly to any operational issues. Given the current energy crisis, the plant may operate up to 24 hours per day. The plant facility will operate most summer days and less frequently in winter. Hours of operation are expected to decrease as larger, regional plants are constructed in the coming years.

#### Linear Facilities

Linear facilities for the Project will consist of an overhead electric transmission line, an underground natural gas pipeline, and underground water pipeline and an access road (see Figure 6). Approximately 1,700 feet of transmission line will be constructed between the Project site and an existing major SDG&E corridor that connects into an existing SDG&E substation. Additional details related to the transmission line are provided in Section 1.10. In addition, SDG&E will construct an underground natural gas pipeline approximately 600 feet

from the meter station near the eastern boundary of the Project site under the access road between the Project site and the existing SDGE gas line on Sanyo Avenue. The gas line alignment is shown in Figures 3 and 6. Additional details related to the natural gas pipeline are provided in Section 1.13.

An approximately 600-foot access road will be constructed between Sanyo Avenue and the Project site. This will be a paved roadway approximately 24-feet wide. It will be utilized during Project construction and throughout the operational period of the Project. The road elevation will vary from approximately 18 feet to 0 feet above the surrounding grade with a predominant slope of 5 percent for drainage. The 30-foot width will provide for safe two-way traffic of the largest construction vehicles. The alignment is shown in Figure 4. See Section 1.16 for a discussion on the water pipeline that will serve the Project.

#### 1.3 STRUCTURE DIMENSIONS (SIZE AND HEIGHT), PLAN AND PROFILE

The facility will be compact, consisting of modular components. A 50-foot high exhaust stack will be utilized. Other facility components will be less than 50-feet in height (see Appendix A). They will be placed within the Project site as shown in Figure 6.

### 1.4 FULL SIZE COLOR PHOTO OF THE SITE AND RENDERING OF PROPOSED FACILITY IF AVAILABLE

An air photo of the site is shown in Figure 3. A color rendering of the Project is shown in Figure 5. Photo simulations are shown in Figures 8, 9, 10 and 11 (a photo-view print key map is shown in Figure 7).

#### 1.5 MAXIMUM FOUNDATION DEPTH, CUT AND FILL QUANTITIES

The proposed power generating equipment will be supported by reinforced concrete foundation mats at grade. The mat foundations will be approximately 4 feet thick for the turbines, 2-feet thick for the SCR, and approximately 1-foot thick for the ancillary equipment. In addition, there will be a basement for the control room that will be 10.5-feet deep with a 1-foot thick foundation.

Foundations will be designed to support the following loads:

- Weight of the equipment
- Operating load
- Wind load
- Seismic load (Seismic Zone 4)

The site is located south of Otay Mesa Road and north of Airway Road, on a parcel east of Route 905 and west of Sanyo Avenue in an area planned for industrial development and zoned as Otay Mesa Industrial Subdistrict (OMDD-I). A 5.6-acre parcel, including both the proposed pad and access road, has been purchased by CalPeak to house the generation facility (Figures 1, 2 and 3). The 5.6-acre parcel includes a 1.75-acre construction laydown area. The site is fairly level; it was previously utilized for agricultural production. An estimated, 10,990 cubic yards (cy) of grading (134 cy cut and 10,856 cy fill) will be required to create the pad for the proposed facility. The majority of the fill will be required for the access roadway construction.

Facility landscaping will comply with requirements promulgated in Section 103.1107(b) of the City of San Diego Municipal Code, Otay Mesa Development District.

#### 1.6 CONFORMANCE WITH CALIFORNIA BUILDING CODE

The Project will be designed and constructed in accordance with industry standards and with applicable local, state and federal design standards commonly used in the design of peaking power generation facilities. These standards will include specific criteria as they apply to the California Uniform Building Code and will encompass seismic design standards as they pertain to the Project site (all components of the Project will be designed to handle Seismic Zone 4 loads).

#### **1.7 PROPOSED OPERATION (HOURS PER YEAR)**

The Project is designed to operate up to 8,760 hours per year (24 hours per day/7 days per week). An operating log shall be maintained onsite to record actual times and durations of all startups, shutdowns, quantity of fuel used, hours of daily operation, and total cumulative hours of operation during each calendar year.

#### **1.8 EXPECTED ON-LINE DATE**

The Project is expected to be on-line for commercial operation by September 30, 2001. It is anticipated that construction will require approximately 2.5 months.

#### **1.9 PROPOSED DURATION OF OPERATION (YEARS)**

The planned Project life is 50 years.

#### 1.10 IDENTIFY TRANSMISSION INTERCONNECTION FACILITIES

The generator output will be 13.8 kilovolts (kV) and will connect to an existing SDG&E switchyard at 69 kV. The transmission interconnection will consist of a 35- to 50-foot overhead line from onsite to the existing SDG&E substation located northwest of the Project site. The 35- to 50-foot overhead line between the Project site and the SDG&E substation alignment is shown in Figure 6.

To accommodate the Project, SDG&E will add a breaker and deadend tower inside the substation. Construction and station electrical power will be provided from a separate connection to the local SDG&E distribution system.

In addition, SDG&E has added a gas circuit breaker and load side disconnect to switch to an open rack position in the Border Substation. A new tie-line panel will be installed in the Border Substation Control Shelter for control and protection of Circuit 6936 (see Appendix B).

The 69-kV transmission line will be designed according to the interconnecting utility standards and using the conductor size and type, span lengths, and structure type which will provide the most reliable and economic line to build, operate, and maintain.

We anticipate that the structures will utilize single wood poles using horizontal porcelain post insulator assemblies. Typical vertical phase-to-phase spacings will be 10-feet. The angle and dead end poles will use 7 porcelain suspension insulators. The angle and dead end structures will be guyed to support lateral loads. The line will not have static shield wire.

The transmission line will be designed to meet the 1997 National Electric Safety Code and California GO 95 requirements.

The typical tangent pole will be designed using a 300-foot-long ruling span with a maximum of 7 feet of conductor sag. The typical tangent pole will be 60-foot-long Class 1, Douglas Fir wood poles set 8 feet in the ground. The angle and dead end poles will be 70-foot-long Class 1, wood poles set 9 feet in the ground.

The conductor will be designed to carry 50 MW of load. We anticipate that the conductor will be 954 ACSR 45/7 RAIL. The conductor is 1.165 inches in diameter.

The transmission line between the Project site and the SDG&E facility is shown in Figure 6.

#### 1.11 TRANSMISSION INTERCONNECTION APPLICATION

A Transmission Interconnection Application for the Project has been submitted to SDG&E (see Appendix B).

#### 1.12 "DOWNSTREAM" TRANSMISSION FACILITIES (IF KNOWN)

According to the Transmission Interconnection Study, no known "downstream" transmission facilities are proposed for this Project (see Appendix B).

#### **1.13 FUEL INTERCONNECTION FACILITIES**

Natural gas will be supplied to the Project via a new 8-inch natural gas pipeline to be constructed by SDG&E along the Project site access roadway easement. The pipeline will extend a distance of approximately 780 feet between Sanyo Avenue and the Project site. The pipeline will be installed in accordance with conditions of the lease agreement between SDG&E and CIF Holdings. The Project will use an estimated 1,000 Mmbtu/hr of pipeline quality natural gas.

#### **1.14 FUEL INTERCONNECTION APPLICATION**

A Fuel Interconnection Application for the Project has been submitted to SDG&E (see Appendix C).

#### 1.15 WATER REQUIREMENTS AND TREATMENT

The facility will consume approximately 10 gallons per minute (gpm) of water for evaporative cooling, as needed for peak power augmentation and improved plant efficiency. It is anticipated that evaporative cooling will be used only during periods when the ambient temperature exceeds 80 degrees Fahrenheit. Excess water from the cooling unit will be recycled onsite through a water filtration system for reuse in the cooling unit. No process water will be discharged. The anticipated water use is less than 3 acre-feet (af) per year. Washwater from equipment washdown will be collected and pumped to storage. Disposal of washwater will be by tank truck collection for offsite treatment. As the facility will be unstaffed, it will not require sewage service. A chemical toilet will be installed onsite, and waste will be removed periodically and transported to an appropriate facility.

#### 1.16 WATER INTERCONNECTION FACILITIES (SUPPLY/DISCHARGE)

The water source for the Project will be via an interconnection from an existing 12-inch water line owned and operated by the Otay Water District located on Sanyo Avenue. The water will be treated in a rental portable filtration system, located onsite. Wastewater from the portable filtration system will be removed for disposal by a licensed contractor. (This contractor will be selected at a later date.) The portable demineralized water system will not generate any wastewater onsite.

Stormwater flows from the site will be directed to the existing, natural drainage path. There will be only limited (and contained) hazardous materials onsite; the risk of stormwater contamination generally will be similar to the average parking lot. Oils kept onsite for plant operation will be self-contained and removed by qualified personnel. A secondary containment area for the electrical power transformer will be provided for containment of any potential coolant oil leaks. This area also will contain stormwater run-off from the transformer. An oily water separator will be provided on the stormwater discharge line as a secondary safeguard against inadvertent oily discharge. There will be no onsite catchment basins.

An amended General Industrial Activities Stormwater Permit will be obtained from the State Water Resources Control Board. Best management practices (BMPs) will be implemented to prevent any offsite drainage of oil-impacted stormwater from construction and parking lot uses.

#### 1.17 SOURCE AND QUALITY OF WATER SUPPLY

The Project will obtain potable water from the Otay Water District via City water service lines. The site is served by a 12-inch waterline along Sanyo Avenue.

#### 1.18 WATER SUPPLY AGREEMENT/PROOF OF WATER SUPPLY

A Water Supply agreement for the Project has been obtained from the Otay Water District. A copy of this letter is provided as Appendix D.

#### 2.0 SITE DESCRIPTION

#### 2.1 SITE ADDRESS (STREET, CITY, COUNTY)

The Project site is located south of Otay Mesa Road and north of Airway Road between Route 905 and Sanyo Avenue in the Otay Mesa area of the City of San Diego, San Diego County, California. At the time of this filing, a specific street address for the Project site has not been assigned.

#### 2.2 ASSESSOR'S PARCEL NUMBER

The Assessor's Parcel Number for the site is APN-646-130-46.

#### 2.3 NAME AND ADDRESSES OF ALL PROPERTY OWNERS WITHIN 500 FEET OF THE PROJECT SITE OR RELATED FACILITIES

Appendix E contains a map of parcels adjacent to the Project site and lists the property owners and mailing addresses for parcels within a 500-foot radius of the site and offsite linear facilities (transmission line, natural gas pipeline, waterline, access road). An electronic mail merge format of the mailing address is being submitted to the California Energy Commission (CEC) under separate cover.

#### 2.4 EXISTING SITE USE

The Project site is not in use and is currently vacant.

#### 2.5 EXISTING SITE CHARACTERISTICS

The site and surrounding area are relatively flat, with elevations approximately 500 feet above mean sea level. The site historically has been used for tomato production. Existing vegetation is dominated by non-native species, primarily mustard (*Brassica*, sp.). Most of the site has been recently plowed. Soil is primarily Diablo clay, with a small amount of Salinas clay north of the Project site (Helix, 2001).

#### 2.6 LAYOUT OF SITE

The power plant will be constructed in the approximate center of the Project site (see Figure 6). The facility includes two power generation turbines, an SCR module, an exhaust stack, the

control enclosure, and a facility substation that includes main step-up transformers, plant circuit breakers and a control room. Areas for the handling and use of ammonia and raw demineralized water are included (see Appendix A).

# 2.7 ZONING AND GENERAL PLAN DESIGNATIONS OF SITE AND LINEAR FACILITIES

#### General Plan Designation

The site and linear facilities are located in the Otay Mesa Development District and carry no specific General Plan designation. The Project site is located in the Otay Mesa Industrial Subdistrict, the purpose of which is to create the development of the City's largest industrial area.

Zoning Designation

- Project Site: Otay Mesa Industrial Subdistrict (OMDD-I)
- Transmission Line: OMDD-I
- Water Line: OMDD-I
- Gas Line: OMDD-I
- Access Road: OMDD-I

#### 2.8 OWNERSHIP OF SITE (NAME, ADDRESS, PHONE)

Name: CIF Holdings, L.P., Attn.: Robert D. Houck

Street: 6363 El Cajon Blvd., Suite 206

City: San Diego, CA 92115

Telephone: 619.686.8770

Facsimile: 619.583.0093

#### 2.9 STATUS OF SITE CONTROL

A long-term lease and option to purchase agreement for the Project site between CalPeak and the owner of the property is provided as Appendix F.

#### 2.10 EQUIPMENT LAYDOWN AREA - SIZE AND LOCATION

The equipment laydown area will be a designated 1.75-acre area located adjacent to the west side of the power plant site, adjacent to Route 905. The laydown area is shown in Figure 3.

The laydown area will be prepared by removing a maximum 6 inches of topsoil, which will be stockpiled. The area then will be fenced and graveled. Erosion control measures will be provided during earthwork operations. Equipment required for construction will be stored in this area. In addition, the construction laydown area will be used for contractor parking. At the conclusion of construction, the layer of gravel will be removed, the stockpiled topsoil will be redistributed, and the laydown area will be re-seeded.

### **3.0 CONSTRUCTION DESCRIPTION**

#### 3.1 CONSTRUCTION SCHEDULE

Although a specific schedule of the construction period will be controlled by the construction contractor, a tentative schedule has been developed for the Project. Construction is anticipated to begin as soon as the needed permits are obtained, and will last for a period of approximately 2.5 months. The Project is expected to be on-line and ready for commercial operation on September 30, 2001 (see Table 1).

#### TABLE 1

TASK DESCRIPTION		WEEKS											
		July			August			September				Oct	
			1	2	3	4	5	6	7	8	9	10	
Site Preparation and Grading													
Foundations													
Balance of Plant													
Systems Check-Out													
Commercial Operations										Septe	mber 3	0	

#### PRELIMINARY PROJECT CONSTRUCTION AND COMMERCIAL OPERATIONS START-UP SCHEDULE

#### 3.2 WORKFORCE REQUIREMENTS (PEAK, AVERAGE)

Anticipated staffing levels for construction will vary between 23 and 79 personnel onsite at any one time. Peak staff levels (approximately 80 people) will occur for approximately 3 weeks at the peak of the construction period. Over 65 people will be onsite approximately 5 weeks. For the remainder of the construction period, an estimated 23 to 55 people will be onsite.

### 4.0 POWER PURCHASE CONTRACT (DWR, ISO, OTHER)

#### 4.1 STATUS OF NEGOTIATIONS AND EXPECTED SIGNING DATE

CalPeak has a verbal agreement with the DWR for a minimum 10-year contract to purchase the power generated by the Project. A Letter of Intent between CalPeak and DWR is being finalized, with an expected signature date in June 2001. Subsequently, a power purchase agreement with DWR is expected to be signed in July 2001. The contact is Tera Nolan of Navigant: (916) 852-1300.

# 5.0 AIR EMISSIONS TRC TO REVISE FOR THE BORDER PROJECT UPON RECEIPT OF AQIA

#### 5.1 NEAREST MONITORING STATION (LOCATION, DISTANCE)

The nearest monitoring station is the Otay Mesa-Paseo International Monitoring Station. This station is located directly at the international border crossing and is influenced by vehicular emissions. Therefore, the San Diego County Air Pollution Control District (SDCAPCD) recommends use of the Chula Vista Station monitoring data to represent background ambient air quality for the air quality impact analysis.

Because of the inland location of the Project site, the SDCAPCD recommended that surface meteorological data collected at the U.S. Marine Corps Air Station Miramar air monitoring station be used to conduct the air quality impact analysis for the Project. Upper air data from the Miramar station were used for the mixing height, as Miramar is the closest upper air station at which mixing heights are measured.

#### 5.2 PROVIDE COMPLETE SELF-CERTIFICATION AIR PERMIT CHECKLIST

An Authority to Construct (ATC) Application has been submitted to SDCAPCD (see Appendix G), and a Draft ATC has been issued (see Appendix H). Therefore, it is not necessary for the self-certification air permit checklist to be completed for this Project.

#### 5.3 PROVIDE COMPLETE AIR PERMIT APPLICATION

The ATC application for the Project was submitted to the SDCAPCD on May 14, 2001. A copy is provided as Appendix G.

#### 5.4 STATUS OF AIR PERMIT APPLICATION WITH AIR DISTRICT

A draft ATC was issued by SDCAPCD on May 24, 2001. The public comment period will end June 24, 2001. A copy of the Draft ATC is included as Appendix H.

#### 5.5 STATUS OF OFFSETS AND/OR MITIGATION FEES, AS REQUIRED

Emission offsets are employed to ensure that national and local air quality attainment goals will be met over time, while still allowing for the construction and operation of new sources. At the SDCAPCD level, new sources that emit criteria pollutants above a set deminimus level must offset these emissions by purchasing or creating emission offsets that meet or exceed the projected emissions from the new source. The emission offset deminimus levels in San Diego County are:

- $NO_x$ : 50 tons per year (tpy)
- VOC: 50 tpy
- PM₁₀: 100 tpy
- SO₂: 100 tpy
- CO: 250 tpy

An Air Quality Impact Analysis (AQIA) for the Project was conducted in accordance with SDCAPCD Rule 20.3, New Source Review (see Appendix G). As documented in the AQIA, the Project's "potential to emit" (PTE) emissions is below the SDCAPCD's emission offset thresholds for all criteria pollutants. As a result, no emission credits need to be purchased for any pollutant to meet SDCAPCD Rule 20.3.

Title IV of the Federal Clean Air Act, also known as the Acid Rain Program, requires the purchase of SO₂ trading allowances by all power plants that meet specific power output and date of construction requirements. Electric power generation plants that are constructed after 1991 and that employ an electric generator with an output capacity greater than 25 MW must be included in the Acid Rain Program. These criteria apply to this Project.

The maximum potential  $SO_2$  emissions from the Project are 6 tpy. As a result, up to 6 tpy of  $SO_2$  trading allowances will be purchased under the Acid Rain Program for the Project. The Acid Rain Program contains no  $SO_2$  emission rate deminimus levels, however, it is important to note that Project emissions of 6 tpy  $SO_2$  are far below the San Diego County  $SO_2$  offset deminimus level of 100 tpy.

As stated in Condition 4 of the Draft ATC, sufficient  $SO_2$  trading allowances will be purchased by CalPeak to offset potential  $SO_2$  emissions in accordance with requirements of 40 CFR 73 (Title IV - Acid Rain Program). CalPeak shall hold allowances, as of the allowance transfer deadline, in the facility's (Department of Energy's Office of Regulatory Information System) compliance sub-account (after deductions under 40 CFR 73.34[c]) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit (see Appendix G). The  $SO_2$  allowance transfer deadline is March 1st of the year following the year in which  $SO_2$ emissions occurred.

#### 5.6 ODORS

The Project is a natural gas-fired power plant. There is nothing inherent in the process of producing electricity in this manner that produces offensive odors. CalPeak will not stockpile fuel or any other odiferous material, with the exception of ammonia. The aqueous ammonia system supplies aqueous ammonia to the SCR. More than 90 percent of the ammonia is consumed in the catalytic reduction process for NO_x. The excess ammonia exits the stack at a very low concentration (<10 ppm) and is not perceptible at ground level. As a result, under normal operating conditions, use of aqueous ammonia at the Project will not result in detectable odors offsite.

#### 6.0 NOISE

#### 6.1 LOCAL NOISE REQUIREMENTS

The City of San Diego, through its Noise Ordinance (Section 59.5.0401), has established property line sound level limits for various land use zones. The land use zone and the time of day determine the applicable sound level limit. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts. Noise subject to the limits is the total noise at the specified location due solely to the action of the noise generator. Table 2 shows sound level limits for the City of San Diego.

#### TABLE 2

LAND USE ZONE	TIME OF DAY	ONE-HOUR AVERAGE SOUND LEVEL (decibels)
	7:00 a.m. to 7:00 p.m.	50
Residential: All R-1	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
	7:00 a.m. to 7:00 p.m.	55
All R-2	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
	7:00 a.m. to 7:00 p.m.	60
R-3, R-4 and all other Residential	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
	7:00 a.m. to 7:00 p.m.	65
All Commercial	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Manufacturing all other industrial activities including Agricultural and Extractive Industry	Any time	75

#### CITY OF SAN DIEGO APPLICABLE NOISE LIMITS

Source: City of San Diego Noise Ordinance, Section 59.5.0401.

In addition, the City Noise Ordinance (Section 59.5.0404) limits operation of construction equipment to the hours of Monday through Saturday between 7:00 a.m. and 7:00 p.m. At no time can a piece of construction equipment or combination of equipment be operated so as to cause noise in excess of an average sound level limit greater than 75 dB during the 12-hour period from 7:00 a.m. to 7:00 p.m. except emergency work.

Grading for the Project site and pipeline route will comply with these requirements. Activities such as site survey, electrical wiring or similar low-volume actions that do not require operation of construction equipment may occur during evening and nighttime hours.

The City Noise Ordinance states that the sound level limit on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two land uses. The applicable 1-hour average standard will be 62.5 from 7:00 a.m. to 7:00 p.m., 60 dB from 7:00 p.m. to 10:00 p.m., and 57.5 dB from 10:00 p.m. to 7:00 a.m.

The existing residences along Otay Mesa Road are located within the County. Therefore, the County's noise ordinance limits are also utilized in this study. The residential properties are located within Specific Plan Zone (S-88). The specific plan for the area designates that the

properties are to be developed with mixed-industrial uses. The County of San Diego noise ordinance states that the sound level limit on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts. The County's noise ordinance limits for the existing residences along Otay Mesa Road are that the 1-hour average sound level shall not exceed 62.5 dB between the hours of 7:00 a.m. to 10:00 p.m. and 60 dB between the hours of 10:00 p.m. to 7:00 a.m.

#### 6.2 NEAREST SENSITIVE RECEPTOR (TYPE, DISTANCE)

The nearest sensitive receptors are three residences located approximately 3,000 feet northeast of the Project site, located along Otay Mesa Road. Ambient noise level at the residence is approximately 61dB based on measurement made on the afternoon of May 22, 2001. Due to distance from the proposed site and the intervening rows of industrial buildings located on the east side of Sanyo Avenue, Project noise at the resident boundary will attenuate to less than 40 dB at the residence (see Appendix I for the Acoustical Assessment Report for this Project). Industrial uses and vacant land are located adjacent to the Project site.

#### 6.3 PROJECT NOISE LEVEL AT NEAREST PROPERTY LINE

The Project site and immediately surrounding adjacent property currently are undeveloped and are industrially zoned. The Otay Mesa Community Plan indicates the property is to be developed with light industrial uses. Land across Airway Road south of the Project site is included within a specific plan for mixed industrial use and is zoned International Center versus Industrial. As noted above, the nearest residences are located along Otay Mesa Road approximately 3,000 feet northeast of the Project site.

The noise limit at the property boundary between two industrial uses is 70 dB. The City's noise level limit at the boundary between two varying land use classifications focuses on the receiving land use. Thus, the noise level limit will be 50 dB between the hours of 7:00 a.m. and 10:00 p.m. and 45 dB between 10:00 p.m. and 7:00 a.m. at the boundary of the residential area.

Noise generated during the approximate 2.5-month construction period will occur with varying intensities during the different phases of construction: site preparation and grading, foundations, and the remainder of facility construction. Equipment expected to be used includes dozers, dump trucks and cranes. Maximum noise levels at 50 feet range from approximately 75 dB for the types of equipment typically used in construction projects. At construction sites, the average

sound level is typically less than the maximum noise level because the equipment operates in alternating cycles of full power and low power, rotates in various directions, and moves around the construction site. Typically, the greatest one-hour average noise level occurs during clearing and grading activities. Such activities will occur over a 1-week period for this site. As the closest abutting uses are either vacant land or industrial, adjacent uses are not particularly noise-sensitive. In addition, project construction will be limited to an approximately 2.5-month period, rendering the associated effects less than significant due to their short-term nature.

Gas and water pipelines, transmission line and access road construction activities will be extremely short-term in any one area. In addition, construction activities will occur during hours specified in the City Noise Ordinance, when there is less sensitivity to noise impacts.

Projected noise levels associated with operation of the Project have been calculated using noise source data provided by the manufacturers to the Project facility design engineers and provided in the Acoustical Assessment Report (Appendix I). Industrial uses are located along the eastern property boundary. The 1-hour average noise level at this boundary generally will be a maximum 57 dB, which meets the City's Noise Ordinance criteria. Undeveloped land designated for industrial use surrounds the property boundaries. The noise levels at these boundaries will be approximately 60 dB, 73 dB and 62 dB, respectively, which meet the City's Noise Ordinance criteria. At the closest residential land use (approximately 3,000 feet northeast of the Project site), operational noise levels would attenuate to less than 40 dB because of the intervening rows of industrial buildings located on the eastside of Sanyo Avenue that would shield homes from noise generated by the Project. Therefore, the Project is in full compliance with the City's Noise Ordinance.

#### 6.4 PROPOSED MITIGATION IF REQUIRED

Based on the noise analysis for the Project (see Appendix I), no mitigation is expected to be necessary for construction or operation.

# 7.0 HAZARDOUS MATERIALS

#### 7.1 TYPE AND VOLUME OF HAZARDOUS MATERIALS ONSITE

Lubrication oil in a 500-gallon container, turbine oil in a 400-gallon container, hydraulic oil in a 50-gallon container and aqueous ammonia will be onsite. The aqueous ammonia will be used for emission control using an SCR unit. The SCR is an air pollution control system typically used for such applications.

Aqueous ammonia will be stored onsite in one 12,000-gallon vertical single-walled storage tank built inside a secondary containment unit designed for 110 percent of the stored chemical. The SCR is technology for post-combustion flue gas control. It removes  $NO_x$  from the flue gas after it has been generated in the combustion process. The SCR uses aqueous ammonia to react with  $NO_x$  in the exhaust gases and convert them into environmentally acceptable emissions. It is proposed that aqueous ammonia at a concentration of 19.5 percent be used for the Project. The onsite storage and handling of aqueous ammonia is regulated under the California Accidental Release Program (CalARP) requirements (California Health and Safety Code, Section 2770.1).

The following provides a list of hazardous materials that will be within onsite equipment and utilized by the Project:

- Turbine lubrication oil: 40 gallons in each turbine (2 turbines)
- Hydraulic fluid:
  - Mineral oil:
- Lube/valve seal oil:
- 317 gallons in the transformers

60 gallons in TwinPak generating unit

- 55 gallons in the gas compressors
- Heat transfer oil:4,000 gallons in the 2 transformers
- Aqueous ammonia:
- 12,000 gallons

Other than oil stored or contained in the equipment listed above, there will be no onsite storage of oil. Supplies to supplement or replace the oil uses listed above will be maintained offsite and transported to the Project site on an as-needed basis.

#### 7.2 STORAGE FACILITIES AND CONTAINMENT

Onsite storage facilities and containment are described in Section 7.1 above.

#### **8.0 BIOLOGICAL RESOURCES**

#### 8.1 LEGALLY PROTECTED SPECIES AND THEIR HABITAT ONSITE, ADJACENT TO THE SITE AND ALONG RIGHT-OF-WAY FOR LINEAR FACILITIES

No legally protected species of plants or animals were observed during project surveys, including protocol surveys for the federally listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*) (Appendix J). The project site has been subject to repeated disturbance and exhibits a dense cover of non-native, weedy species. Because of the history of disturbance and the resultant weedy vegetation, most sensitive species have a very low potential to occur on site. Specifically, the probability of any protected plant species occurring on or adjacent to the site is considered low because: (1) appropriate soils or habitat are not present; or (2) if soil and habitat are present, associated plants were not observed during project surveys, but would have been observed if present. Similarly, no protected animal species are considered likely to occur due to the lack of appropriate habitat. Although technically not a "protected" species, a northern harrier *"Circus Cyaneus"* was observed flying over the site during several site visits. No nest was observed during surveys and the bird was never seen to land. No impacts are anticipated.

#### 8.2 DESIGNATED CRITICAL HABITAT ONSITE OR ADJACENT TO SITE

The project site is not located within or adjacent to the designated critical habitat for the coastal California gnatcatcher or Riverside fairy shrimp, nor the proposed critical habitat area for the Quino checkerspot butterfly. It also is not within or adjacent to the designated Multi-Habitat Planning Area (MHPA), and does not support vernal pools or coastal sage scrub.

#### **8.3 PROPOSED MITIGATION IF REQUIRED**

Project impacts to 0.4 acre of non-native grassland will require mitigation in accordance with the City of San Diego's Multiple Species Conservation Program (MSCP). The MSCP requires mitigation at different ratios, depending on whether the impact and mitigation are inside or outside the MHPA. The Project's impacts will occur outside of the MHPA. If mitigation land is purchased within the MHPA, the required mitigation ratio would be 0.5:1, or 0.2 acre. Alternatively, if the mitigation land purchased is outside the MHPA, the ratio would be 1:1, or 0.4 acre. No other mitigation related to biological resources is anticipated to be required.

#### 9.0 LAND USE

#### 9.1 LOCAL LAND USE RESTRICTIONS (HEIGHT, USE, ETC.)

The Project site is located in the Otay Mesa Development District, a planned district and one of the City's largest industrial areas (City of San Diego Development Services, 2000). The zoning designation for the Project site is Otay Mesa Industrial Subdistrict (OMDD-I). Major utilities and services includes central electric plants and public utility electric substations, are specifically permitted in the OMDD-1 zone, in accordance with the San Diego Municipal Code \$103.1103(a)(7). The Project is consistent with this code and zoning designation and is a permitted use in this zone.

As shown in the Draft Comprehensive Land Use Plan for Brown Field Airport, the Project is not located within the Brown Field Airport Influence Area (SANDAG, 1999). The only height limitation in the Otay Mesa Development District is a 150-foot height limit within the Brown Field Airport Influence Area. Therefore, the 50-foot stack height for the power plant will not exceed any height restriction.

The Project will be in compliance with all local land use requirements and ordinances.

#### 9.2 USE OF ADJACENT PARCELS

The Project site lies in an area designated for industrial use. The site parcel is located between Otay Mesa Road East to the north, Airway Road to the south, State Route 905 to the west, and Sanyo Avenue to the east (see Figure 3). The east side of Sanyo Avenue is a light industrial area that includes the Casio and Sanyo buildings. Adjacent to State Route 905, to the west, is undeveloped open space (inactive agriculture). To the north of the site, on the south side of Otay Mesa Road East, the Wildflower power plant facility is currently under construction. Directly to the south of the Wildflower facility are SDG&E's Border Substation and gas regulator station. Surrounding the Project site is an area of undeveloped open space. This open space extends from the site northwest to the SDG&E facilities (approximately 700 feet), to the north to Otay Mesa Road East, to the east to Sanyo Avenue (approximately 600 feet), to the south to Airway Road (approximately 650 feet) and to the west to State Route 905 (approximately 300 feet). The Project's construction laydown area will be located between the western boundary of the site and State Route 905. The site access road and the SDG&E gas easement and water pipeline will run from the southeast corner of the facility east to Sanyo Avenue.

#### 9.3 OWNERSHIP OF ADJACENT PARCELS - SITE AND LINEARS

The names and addresses of property owners of parcels that are within a 500-foot radius of the Project site or linear facilities (electric transmission line, natural gas pipeline, water line access road) are provided in Appendix E.

#### 9.4 DEMOGRAPHICS OF CENSUS TRACT (IF KNOWN)

The following demographic information is for the City of San Diego. According to the 2000 Census, the population of the City is 1,223,400, a 10 percent increase from 1,110,549 in 1990. The median family income for the City in the 1990 Census was \$33,686; approximately 13 percent of the total population was below the poverty level. The racial composition of the City population is shown in Table 3.

RACE	NUMBER	PERCENT OF TOTAL
White	603,892	49.4
Black	92,830	7.6
American Indian	4,267	0.3
Asian	164,895	13.5
Hispanic ⁽¹⁾	310,752	25.4
Pacific Islander	5,311	0.4
Other	3,065	0.3
2 or More Races	38,388	3.1
TOTAL	1,223,400	100%

# TABLE 3CITY OF SAN DIEGO POPULATION

Source: 2000 United States Census

⁽¹⁾ It should noted that the Bureau of Census indicates that persons of Hispanic origin may identify with any of the minority population categories listed above, as well as with White and any other category, to capture undefined origins.

The Project site is located within the 2000 Census Tract 100.15. The Census Tract for the Project site in the 1990 Census was 0100.07. According to the U.S. Census Bureau, census tracts are small, relatively permanent statistical subdivisions of a county. Census tracts usually have populations of 2,500 to 8,000 and, when first delineated, are designed to be homogenous with respect to population characteristics, economic status and living conditions. Census tracts do not cross county boundaries. The spatial size of census tracts varies widely, depending on the

density of the settlements. Census tract boundaries are revised when large population growth requires splitting a census tract or when substantial population decline requires two or more census tracts to be combined.

The 2000 Census Tract 100.15 where the Project site is located reflects a population of 1,062, with a minority population of 505. The 2000 estimated median family income for this census tract is \$33,449, compared to the 1990 Census median family income of \$24,792.

### **10.0 PUBLIC SERVICES**

#### **10.1 ABILITY TO SERVE LETTER FROM FIRE DISTRICT**

The City of San Diego Fire Department has indicated it will be able to serve the Project. A will serve letter for the Project signed by the Fire Department is provided as Appendix K.

#### **10.2 NEAREST FIRE STATION**

The nearest fire station is Fire Station #43, located at Otay Mesa Road and La Media, approximately 1 mile west of the Project site. This station is staffed 24 hours per day, 7 days per week.

Once operational, the Project will be unstaffed. The generating plant will be operated without onsite personnel, but it will be remotely monitored from a central monitoring/control station in San Diego. As appropriate, calls will be made from the monitoring station to 911 and/or service technicians. Response time for the service technicians will be 1 hour.

Initially, there will be a person on staff at the monitoring/control station 24 hours a day. In the future, the monitoring station may be staffed only during peak hours when all seven of the planned CalPeak facilities begin to operate as true peakers. If and when this should happen, during times when there are no personnel at the monitoring station, key alarms will automatically generate pages directly to the appropriate service technicians from the central monitoring/control station system.

#### **11.0 TRAFFIC AND TRANSPORTATION**

#### 11.1 LEVEL OF SERVICE (LOS) MEASUREMENTS ON SURROUNDING ROADS - PEAKS

The Project will not contribute to exceedance of any Level of Service (LOS) standards during its operational phase, as it will be unstaffed. A maximum average 154 trips per day are anticipated during Project construction. Estimates of the number of workers per day for each week of construction are shown in Table 4. The table also shows associated traffic for construction workers, equipment and vendor deliveries. During the construction period, parking for vehicles that access the site (cars, trucks, equipment) will be provided within the 3.85-acre Project site and the 1.75-acre laydown area (total Project site: 5.6-acres).

#### TABLE 4

#### WEEK OF CONSTRUCTION PROJECT-RELATED TRAFFIC Onsite Workers (per day) Number of Trips Per $Dav^{(1)}$ Worker Trips⁽²⁾ Construction Equipment⁽³⁾ Vendor Deliveries Total Trips Per Day Average Daily Trips (6-day week)

#### ONSITE CONSTRUCTION WORKERS AND ESTIMATED CONSTRUCTION TRAFFIC

⁽¹⁾ Trip is one-way travel, to or from the Project site.

⁽²⁾ Assumes 15 percent of workers will carpool with one other worker.

⁽³⁾ Delivery of cranes, forklifts, etc.

Construction traffic will access the site via State Route 905, continuing eastbound on Otay Mesa Road to Old Otay Mesa Road East to Sanyo Avenue, then turn right (south) on Sanyo Avenue to the site access road. State Route 905 is freeway to approximately 1 mile east of the junction with Interstate 805, where it becomes Otay Mesa Road. The Otay Mesa Road widening project, completed in December 1999, upgraded the road to six lanes from the end of the freeway east to Old Otay Mesa Road East, where State Route 905 continues south to the Otay Mesa International Port of Entry. Traffic must make a left turn from Otay Mesa Road onto Old Otay Mesa Road East and continue east to Sanyo Avenue. Future plans are to extend State Route 905 as a freeway approximately an additional 6 miles, from its current terminus east of Interstate 805 to the Otay Mesa International Port of Entry.

The City of San Diego Circulation Element identifies Otay Mesa Road as a six-lane primary arterial. Otay Mesa Road has recently (1999) been widened to 6 lanes, and current capacity and LOS data are not available. A Year 2000 Near-Term-Analysis in the Otay Mesa Road EIR (Helix, 1996) projected the LOS for Otay Mesa Road after widening. Segments in the vicinity of the Project are LOS C, as shown in Table 5. The City and County generally consider LOS D to be the minimum acceptable LOS for city streets. An additional 154 trips per day during Project construction will not result in the exceedance of the existing standard (LOS C).

#### TABLE 5

STREET	SEGMENT	PROJECTED ADT	LOS C* VOLUME	PROJECTED LOS
Otay Masa Dood	La Media Road to Piper Ranch Road	49,000	50,000	С
Otay Mesa Koad	Piper Ranch Road to Old Otay Mesa Road	49,000	50,000	С

#### OTAY MESA ROAD LOS IN PROJECT VICINITY

*Indicates maximum traffic volumes for an acceptable LOS C.

#### **11.2 TRAFFIC CONTROL PLAN - FOR ROADS DURING CONSTRUCTION PERIOD**

To minimize impacts to traffic flow, the Project will develop and implement a standard traffic control plan consistent with the size and scope of construction activities. Some of these safety measures include:

- Utilize proper signs and traffic control measures in accordance with Caltrans and City requirements.
- Coordinate crossing of interstate and state highways with Caltrans, as necessary, in accordance with Caltrans regulations and permit requirements.
- Schedule traffic lane or road closures during off-peak hours, whenever possible.
- Limit vehicular traffic to approved access roads, construction yards and construction sites.

The Project will obtain the following permits, as needed, prior to Project construction:

- Transportation permits required by Caltrans to transport oversize, overweight, overheight and overlength vehicles on State highways (in compliance with California Vehicle Code Section 35780; Streets and Highways Code Sections 117 and 660-711; and 21 California Code of Regulations 1411.1 to 1411.6);
- Compliance with California Vehicle Code Section 31300 et seq. regarding the transport of hazardous materials.

### **11.3 TRAFFIC IMPACT OF LINEAR FACILITY CONSTRUCTION**

SDG&E will construct a 8-inch natural gas line to deliver natural gas to the Project site. This line will be constructed within a new easement between Sanyo Avenue and the Project site (see Figures 3 and 6).

During construction, access to residences and businesses along the roadway will be maintained by SDG&E. The temporary increase in traffic loads/direction related to Project construction will not be considered substantial in relation to existing traffic loads and street system capacity.

#### **11.4 EQUIPMENT TRANSPORT ROUTE**

The equipment transport route is described in Section 1.2. It is anticipated that trucks will travel on Interstate 5 or Interstate 805 to Route 905, then travel east on Route 905 to Otay Mesa Road to Sanyo Avenue. Trucks will turn right (south) on Sanyo Avenue, proceed to the Project access road and turn right onto the Project site. The local roadway system is shown in Figure 4.

#### **11.5 PARKING REQUIREMENTS**

The generating facility will not permanently remove any existing parking, and generally will not have personnel onsite. When operators do come to the site, areas paved or graveled by Project development will provide adequate parking on the Project site or laydown area. No significant adverse impact is assessed.

During Project construction, adequate parking will be provided within the boundary of the 3.85-acre power plant site and 1.75-acre laydown area. These two areas are shown in Figure 3.

### **12.0 SOIL AND WATER RESOURCES**

#### 12.1 WASTEWATER VOLUME, QUALITY, TREATMENT

Site storm drainage will be routed to the existing, offsite stormwater system. Onsite equipment drains will be routed to a collection sump, for pumping to an onsite collection tank. The collected wastewater will be transported offsite for proper treatment by a licensed contractor. (This contractor will be selected at a later date.) The plant is designed to have no other wastewater discharge. A chemical toilet will be provided; the waste will be removed periodically and transported to an appropriate facility.

Water for the Project will be supplied by the Otay Water District (see Appendix D). The water will be delivered via a 2-inch connection to the 12-inch water line in Sanyo Avenue.

The anticipated water use is 3 acre-feet per year. It is anticipated that water will be used only when ambient temperature exceeds 80 degrees Fahrenheit. When it is needed, water will be used at a rate of 10 gallons per minute for evaporative cooling, as needed for peak power augmentation and improved plant efficiency. Excess water from the cooling unit will be recycled onsite through a water filtration system for reuse in the same cooling unit. No process water will be discharged.

Wastewater from the portable filtration system will be removed for proper disposal by a licensed contractor. (This contractor will be selected at a later date.) The portable demineralized water system will not generate any wastewater onsite.

Stormwater flows from the site will be directed toward the existing storm system that drains to a culver under State Route 905.

All oils kept onsite for plant operation will be self-contained and removed by qualified personnel. An amended General Industrial Activities Stormwater Permit will be obtained from the State Water Resources Control Board. An oily water separator will be located in the discharge line from the secondary containment area for the transformer. This area also will contain stormwater run-off from the transformer. Best management practices (BMPs) will be implemented to prevent any offsite drainage of oil-impacted stormwater from construction and parking lot uses.

There will be no catchment basins.

Washwater from equipment washdown will be collected and pumped to storage. Disposal of wastewater will be by tank truck collection for offsite treatment.

# 12.2 STATUS OF PERMITS FOR WASTEWATER DISCHARGE OR DRAFT PERMIT (WDR/NPDES)

Erosion and sediment controls and other BMPs will be implemented for the construction, post-construction, and operations phases of the Project. NPDES stormwater permitting for construction will be required. Stormwater construction permits are required only for sites where more than 5 acres are disturbed, as is the case for this Project. The Project site, including the access road alignment, is 3.85 acres. The construction laydown area is 1.75 acres. The laydown area is adjacent to the west of the site. As a result, the total area involved during construction will be 5.6 acres.

Once in operation, the facility will be required to obtain coverage under California's General Stormwater Permit (by submitting a Notice of Intent [NOI]) and preparing a Stormwater Pollution Prevention Plan.

#### 12.3 DRAFT EROSION PREVENTION AND SEDIMENTATION CONTROL PLAN OR MITIGATION STRATEGY

Erosion prevention and sedimentation control measures will be included on the grading plan for the Project. The grading plan and its erosion prevention and sedimentation control measures will be submitted to the Chief Building Official (CBO) for approval prior to grading activities.

#### 12.4 SPILL PREVENTION/WATER QUALITY PROTECTION PLANS

The types and quantities of oil/oil products stored onsite are presented in Section 7.1. Per 40 CFR 112.1(d)(2), the site has above ground storage capacity for oil that exceeds 1,320 gallons, so a Spill Prevention Control and Countermeasure (SPCC) Plan for the facility is required. The SPCC plan will be prepared and implemented prior to oil being stored onsite in excess of thresholds.

The storage and handling of the 19.5 percent aqueous ammonia at the site will be covered under the CalARP. The completed CalARP will be approved by the local agency, the County of

San Diego Department of Environmental Health Services (DEHS), prior to introduction of the chemical onsite.

The total area of the site and laydown area is approximately 5.6 acres. Therefore, a Stormwater Pollution Prevention Plan (SWPPP) for construction activities is required and will be obtained for the Project.

The operating facility will be required to obtain coverage under California's General Stormwater Permit by submitting an NOI and preparing a Stormwater Pollution Prevention Plan (SWPPP). The NOI will be submitted to the RWQCB before the start of industrial activities per their requirements. This will be followed by the preparation of an SWPPP for the site. All chemicals/oils stored onsite will be in closed containers and will include secondary containment to prevent flow of chemicals and oils into the storm sewers. The SWPPP will contain the following elements:

- 1.0 General description of facility operations
- 2.0 Significant materials used at the facility
- 3.0 No history of chemical releases from the site
- 4.0 Location, storage and handling of significant materials, oils and chemicals
- 5.0 Current stormwater flow patterns and pollution prevention measures
- 6.0 Stormwater drainage system
- 7.0 Spill prevention and response
- 8.0 Sediment control and erosion prevention
- 9.0 Employee training program and facility recordkeeping
- 10.0 Elimination of non-stormwater discharge
- 11.0 Stormwater management controls

The following forms to record stormwater activity also will be prepared:

- 1. Facility stormwater inspection checklist
- 2. Stormwater sampling list
- 3. Annual report preparation format

# **13.0 CULTURAL RESOURCES**

#### **13.1 MAP OF KNOWN HISTORIC/PREHISTORIC SITES**

A literature review, records search and field survey of the Project site within a larger, approximately 30-acre study area were conducted by Kyle Consulting in May 2001 (see

Appendix L). The study area is located south of Otay Mesa Road, north of Airway Road, east of Harvest Road and west of Sanyo Avenue, just south of an existing SDG&E substation.

No cultural resources were identified within the study area during the survey. Other cultural resource studies have been conduced within a 1-mile radius of the study area. Both the current and previous studies encompass the Project site and laydown area, as well as the Project access road, alignments for the water line, PacBell phone line, SDG&E natural gas pipeline along the access road, and the transmission line to the SDG&E substation.

The literature search noted one prehistoric site, CA-SDI-10072, on maps of the South Coastal Information Center at San Diego State University (SCIC). Although the location was recorded, no site form was filed. This site has been combined with three other sites under CA-SDI-12337 (the Lonestar Site). Most sites within a 1-mile radius of the Project site are part of a sparse lithic scatter that covers Otay Mesa. The lithic scatter has been extensively tested and identified as not significant. Two sites within the 1-mile radius of the study area have been identified as prehistoric quarries. Information of the recorded cultural resource sites are included in a Confidential Appendix provided to the CEC under separate cover.

No cultural material was identified during the survey, and no additional cultural resource work is recommended for the Project.

#### **13.2 PROPOSED MITIGATION IF REQUIRED**

In the unlikely event that buried cultural materials or deposits are found during construction or related activities, CalPeak will implement the following, as appropriate:

• Work in the vicinity shall stop immediately until an assessment of the finds can be made by a qualified archaeologist. Should human remains be encountered, work in the vicinity must halt. The San Diego County Coroner shall be immediately notified (5555 Overland Avenue, Building 14, San Diego, California 92123; [858] 694-2895). Suspected human skeletal remains shall not be handled or removed from their initial discovery location until a qualified archaeologist or the San Diego County Coroner is present. If human remains are noticed only after an excavation has redeposited the materials, then the suspected materials and associated deposit shall remain covered until assessed by the San Diego County Coroner. If the remains are determined to be Native American, the San Diego County Coroner shall contact the Native American Heritage Commission.

• Questionable materials inadvertently discovered - including suspected or not readily identifiable cultural resources - shall be considered significant until an archaeological specialist can provide an accurate assessment. If potentially significant cultural resources are detected and cannot be avoided by construction, then impacts shall be mitigated through data recovery or other means, in consultation with pertinent agencies and concerned parties.

#### **13.3 NOTIFICATION OF NATIVE AMERICANS**

The Native American Heritage Commission (NAHC) was informed about the Project on May 29, 2001. A copy of that letter is provided in Appendix M. The letter requested a search of the Sacred Lands File to determine whether or not traditional cultural properties are located within the Project vicinity. The NAHC responded that a search of the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate Project area (see Appendix M).

The NAHC also provided a list of 16 Native American referrals. Letters were sent to these individuals requesting their comments on the proposed project, as well as input regarding cultural resources in the Project area. Copies of these letters are provided in Appendix N.

#### **14.0 PALEONTOLOGICAL RESOURCES**

#### **14.1 IDENTIFICATION OF KNOWN PALEONTOLOGICAL SITES**

The land surface of the Project site has been subject to extensive surface disturbance from previous agricultural uses and recent grading. The Project is underlain by the Otay Formation (includes the formations sometimes identified as the Sweetwater and Rosarito Beach Formations). The Otay Formation contains primarily nonmarine volcaniclastic sediments. Significant terrestrial vertebrate fossils are known from these rocks in the Chula Vista area of San Diego County (City of San Diego, 1996).

The Otay Formation is composed of light-gray and light-brown, moderately well-sorted, poorly indurated, massive sandstone and claystone. The sandstone generally is weakly cemented. The claystone is waxy and composed almost exclusively of bentonite. The exposed part of the Otay

Formation has been correlated with the Miocene-Pliocene Las Glorias Member of the Rosarito Beach Formation in Baja California. The topographic expression developed on these beds is rolling and subdued (Kennedy and Tan, 1977).

Establishment of the laydown area will involve grading of the top approximately 6 inches of previously disturbed surficial material. The approximately 600-foot access road from Sanyo Avenue will involve grading of the top approximately 2 feet of previously disturbed surficial material. As a result, there is little potential for the laydown area or access road to disturb paleontological resources.

Construction of the power plant will involve grading and excavation to depths of approximately 2 to 4 feet within the 2.75-acre pad for the power plant. Construction of footings for the electric transmission line between the Project site and Otay Mesa Road will involve excavation of approximately 9, 8-foot deep holes about 30 inches in diameter. As a result, these activities have some potential to disturb paleontologic resources.

Excavation for the natural gas pipeline and water line along the new access road will be to an approximate depth of 3 feet. As a result, there is some potential to disturb paleontological resources.

Connections to the natural gas pipeline and water line along Sanyo Avenue will be constructed within an area previously disturbed for underground utilities. As a result, there is low potential for paleontologic resources to be affected.

Based on the above, there is some potential for Project construction to affect paleontological resources. However, based on the limited extent of these activities and the existing, disturbed nature of the Project site, the overall potential for disturbance to paleontological resources is expected to be low.

#### 14.2 PROPOSED MITIGATION IF REQUIRED

The Project has a low potential to produce direct impacts to paleontologic resources. Consequently, the recommended mitigation is for the construction manager to have a paleontologist on call. The construction manager shall stop work and shall have this specialist called in if any paleontologic resources are discovered during construction.

### **15.0 VISUAL RESOURCES**

#### 15.1 PLAN FOR LANDSCAPING AND SCREENING TO MEET LOCAL REQUIREMENTS

Although visible to drivers on Otay Mesa Road, Sanyo Avenue, Airway Road and Highway 905, the general setting is one of a disturbed and developing industrial area. An existing SDG&E substation is located approximately 1,200 feet north of the Project site. The existing conditions do not comprise a scenic vista.

The site will be landscaped in accordance with the City's landscaping standards pursuant to Section 103.1107(b) of the San Diego Municipal Code, Otay Mesa Development District.

#### 15.2 FULL SIZE COLOR PHOTO OF THE SITE AND RENDERING OF PROPOSED FACILITY

These materials are provided in Figures 3, 5, 7, 8, 9, 10 and 11.

#### **16.0 TRANSMISSION SYSTEM ENGINEERING**

#### 16.1 CONFORMANCE WITH TITLE 8, HIGH VOLTAGE ELECTRICAL SAFETY ORDERS, CPUC GENERAL ORDER 95 (OR NESC), CPUC RULE 21, PTO INTERCONNECTION REQUIREMENTS, AND NATIONAL ELECTRIC CODE

The Project will conform with Title 8, High Voltage Electrical Safety Orders, CPUC General Order 95 (NESC), CPUC Rule 21, PTO Interconnection Requirements, and National Electric Codes.

#### **17.0 REFERENCES**

City of San Diego. Areas Within the City of San Diego Which Have Paleontological Significance. 1996.

City of San Diego Development Services. City of San Diego Municipal Code. June 2000.

Helix Environmental Planning, Inc. Otay Mesa Road EIR. 1996.

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Kennedy, M.P. and S.S. Tan. *Geology of National City; Imperial Beach and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California.* 1977.

San Diego Association of Governments (SANDAG). Draft Comprehensive Land Use Plan for Brown Field Airport. May 1999.

San Diego State University Institute for Regional Studies of the Californias (SDSU). San Diego - Tijuana International Border Area Planning Atlas. 1998.

State of California - Business, Transportation and Housing Agency, Department of Transportation. *Fact Sheet, Otay Mesa Road Widening*. Winter 1999.