3.4 GEOLOGY AND PALEONTOLOGY

The proposed Larkspur Energy 3 Facility Project, as an incremental change to the existing Larkspur Energy Facility, is sited immediately east of the existing facility and is entirely within the limits of the site evaluated as a part of the 2001 AFC. The existing facility property, located on the southeastern corner of Otay Mesa Road and Harvest Road, in the City of San Diego, is to be subdivided and the new parcel and Project will be owned and operated by Larkspur 3, LLC. The Project site is an approximate 0.9-acre (approximate 300-foot by 125-foot) area within the existing Larkspur Parcel (see Figure 2-2 Site Plan).

Project improvements consist of construction of an additional CTG unit adjacent to the two existing gas turbine engines at the existing Larkspur Energy Facility. Shallow excavations, like those excavated during construction of the two adjacent facilities, are anticipated. Cuts on the order of approximately 5 to 6 feet are anticipated to create a relatively flat pad to support Project components. Shallow foundations and utility trenches are also anticipated.

The Project will utilize a construction laydown area for temporary equipment and materials storage, and construction worker parking. The proposed and alternative construction laydown areas are located on the southern side of Airway Road, east of Heinrich Hertz Drive and are highly disturbed and graded. Because the laydown areas consist of previously disturbed ground and additional excavations are not planned, there is no potential for adverse impacts to paleontological resources associated with the laydown areas.

It has been over 5 years since the Paleontological Resource Assessment (PRA) was prepared, as part of the 2001 AFC. A supplemental field survey, as well as a literature review and locality records search of the Project site and surrounding 1 mile were performed to update the assessment of potential impacts to paleontological resources.

3.4.1 Environmental Baseline

3.4.1.1 Regional Geologic Setting

The Project site and temporary construction laydown areas are located within the southern coastal plain province of the Peninsular Ranges batholith in Southern California. The ~800-km long Peninsular Range is a continental-margin batholith that forms a discontinuous Jurassic- and Cretaceous-aged northwest-southeast elongated belt from the Santa Ana Mountains and well south into Baja California (Kimbrough et al. 2001). The coastal plain of San Diego County is predominantly composed of shallow westward dipping nearshore to marine onlapping sediments onto bedrock that developed several coastal terrace deposits. The Early Pleistocene-age Lindavista Formation is the highest and most prominent of the coastal terraces (Kennedy 1977). The Oligocene-age Otay Formation disconformably underlies the Lindavista Formation. The Otay fanglomerate facies deposits rest uncomformably upon Santiago Peak Volcanic basement complex to the east and interfingers with the Otay Formation to the west (Kennedy 1977). These terrace deposits are a consequence of uplift and erosion of the Peninsular Ranges throughout the Cenozoic Era with periodic episodes of subduction related volcanic eruptions (Berry 1999). These deposits form low mesas dissected by westward-draining stream channels and typically have a gently rolling and subdued topographic expression. The Otay River Valley and subsidiary Johnson Canyon cut into Otay Mesa approximately 1 and 1 miles north of the Project site, respectively.

A review of the potential adverse impacts on the paleontological resources resulting from Project construction was conducted. The review was performed by Mr. Stephen Diem a paleontologist with over 9 years of experience in consulting geology. Mr. Diem's resume is provided in Appendix D.

As a part of the review, a search of known fossil localities was performed by the San Diego Museum of Natural History (SDMNH). The search covered the site and surrounding 1-mile radius, which includes the temporary construction laydown areas. The search resulted in no records. In addition, a literature review of the geologic units that will be encountered was performed. The review indicates excavations at the site will extend through units of the Otay Mesa Formation. The Otay Mesa Formation has a high potential to contain significant paleontological resources, as indicated in the PRA as a part of the 2001 AFC (Deméré 2001).

A field survey of the Project site and temporary construction laydown areas was conducted by Mr. Diem on March 5, 2007. The site and laydown areas were traversed to look for paleontological resources.

3.4.1.2 Regional Tectonic History

The Project site is located within the San Andreas fault system of southern California. The San Andreas fault is a right-lateral transform plate boundary of the Pacific and North American plates. The San Andreas fault is the easternmost member of this system where the largest Quaternary displacements have been recorded (Allen 1981). The other major faults from east to west within the San Andreas fault system include the Imperial Valley fault, San Jacinto fault, Elsinore fault, the Newport-Inglewood-Rose Canyon fault, and other related faults of the Continental Borderland and coastal zone (Hutton et al. 1991). The current recognized faults in the region of the Project site are shown in Figure 3.4-1.

3.4.1.3 Regional Seismicity

A 100-km (62 miles) radial search was performed around the Project site to evaluate the regional seismicity. As the sites are located within the San Andreas fault system of southern California, earthquakes of magnitude 5 and smaller can occur almost anywhere in the Project region (Hutton et al. 1991). However, most earthquakes of magnitude 6 or greater in the Project region are associated with Quaternary fault structures. In many cases the potential for damaging earthquakes was not recognized until after the earthquake, such as the Imperial Valley (M 6.9) just outside the Project region. Furthermore, some major events were not associated with a recognizable Quaternary surface fault, including the blind thrust faults of the 1987 Whittier Narrows (M 5.9) and 1994 Northridge (M 6.7).

The 600-km San Andreas fault system of southern California is broadly defined by northwest trending strike-slip faults which are important sources for large magnitude earthquakes. The San Andreas was responsible for the largest earthquake of southern California, the 1857 M 7.8 Fort Tejon earthquake, more than 200-km north of the Project site. This event ruptured the fault from Parkfield in central California, through the Transverse Ranges near Fort Tejon, and south to Cajon Pass, north of San Bernardino (~34.3 N^{o}) (Sieh 1978). There have been no large historical earthquakes (M≥7) documented by the Working Group on California Earthquake Probabilities (1995) for the San Andreas south of San Bernardino, in the area referred to as the "San Bernardino" and "Coachella Valley" segments, located more than 140-km northeast of the Project region.. The Working Group suggest that a magnitude 7.3 or greater earthquake has a 32 to 43 percent probability of occurring in the next 30 years along the San Bernardino and

Coachella Valley segments and a 53 to 66 percent probability if these segments rupture concurrently with the 1857 portion of the San Andreas fault system.

The San Jacinto fault zone is seismically the most active structure in southern California at all magnitude levels less than 7.0. According to Hutton et al. (1991), the San Jacinto fault zone has produced at least nine events of magnitude 6 or greater since 1890. The most recent large event was the November 24, 1987 magnitude 6.5 Superstition Hills earthquake, approximately 120-km northeast of the Project site.

The Whittier-Elsinore fault zone, as well as the Newport-Inglewood-Rose Canyon fault zone, and the Continental Borderland faults (e.g., Coronado Bank, San Diego Trough, and San Clemente-San Isidro fault zones) represent the westward bending of the San Andres fault zone south of the Transverse Ranges. To the south, these faults extend into Baja California and appear to merge with major faults, such as the Laguna Salada, the San Miguel-Vallecitos fault zone, and the Agua Blanca fault (Hutton et al. 1991). The level of seismicity is moderate and generally disperse, although some alignment of seismicity to the major Quaternary faults is apparent. These faults are assumed to rupture infrequently having moderate to large earthquakes; whereas, several moderate earthquakes have occurred along or near these faults, during the past 60 years (Hutton et al. 1991). Focal mechanisms are predominately strike-slip and oriented in a northwestward direction consistent with region tectonic movements, while minor local variations of reverse or normal faulting are observed (Hutton et al. 1991). The 1986 Oceanside earthquake (M 5.4), located along the northern end of the San Diego Trough fault zone, showed a N70^{o}W reverse faulting focal mechanism that occurred along a small fault that supports a west step around the Santa Cruz escarpment (Hauksson and Jones 1988). Hutton et al. (1991) concluded the occurrence of relatively small-magnitude background seismicity west of the San Andreas and San Jacinto fault zones indicates accumulating tectonic stress. Thus, many of the Quaternary fault zones that crosscut the coastal and Continental Borderland province are seismically active and capable of damaging earthquakes of magnitude 6 or greater.

The predominant right-lateral strike-slip faults of the coastal and Continental Borderland fault zones of southern California continue south and appear to merge eastward and join major Baja California faults, including the San Miguel, Vallecitos, and Agua Blanca fault zones (Rockwell 1987; Dewey and Suárez 1991; Hirabayashi et al. 1996). The San Miguel fault zone has been the most seismically active structure in Baja California peninsula this past century (Reyes et al. 1975), producing six moderate earthquakes of nearly magnitude 6 or greater in a sequence from 1954 to 1956 (Hirabayashi et al. 1996). An analysis of geologic, historical seismic, and paleoseismic data (Hirabayashi et al. 1996) assessed that the San Miguel-Vallecitos fault zone maintains an average slip rate of approximately 0.2 mm/year, while the Agua Blanca fault is estimated to have a slip rate of about 6 mm/year (Rockwell et al. 1987). The trend of the San Miguel-Vallecitos fault zone may suggest that it could merge with the Rose Canyon fault zone; however, there is no direct continuity between the two fault zones. Furthermore, the estimated slip rate of the Rose Canyon fault zone of 1.5 mm/year (Lindvall and Rockwell 1995) is close to an order of magnitude greater than the slip rate estimates for the San Miguel-Vallecitos fault zone.

3.4.1.4 Local Geology - Stratigraphy

The Project and the temporary construction laydown areas are respectively about 10 miles southeast of San Diego Bay, situated on the geomorphic feature known as Otay Mesa at the base of the San Ysidro

Mountains (Figure 3.1-1). The stratigraphy beneath the site, from oldest to youngest consists of the pre-Cenozoic basement complex, Cenozoic sedimentary rocks, and Holocene sediments. California Geological Survey, Otay Mesa 7.5' Quadrangle (Tan and Kennedy 2002), indicates the site is approximately 1¾-miles west of the base of the San Ysidro Mountains in the Jurassic- to Early Cretaceous-aged Santiago Peak Volcanics of Larsen (1948) (Todd et al. 2003). The contact of the Pleistocene-age alluvial deposits mapped as the Lindavista Formation (Kennedy 1977) is approximately ½ -mile west of the Larkspur site (Figure 3.4-2).

Prior to grading for the existing Larkspur Energy Facility, the site was overlain by 2 to 3 feet of medium to dark brown topsoil composed of clayey sand. Beneath the topsoil, a thin layer of alluvium may be encountered to depths around 5 feet and is composed of light to dark brown sand to clayey sand (TerraPacific 2001). According to TerraPacific (2001) boring logs from west to east, the alluvium thins from 10- to 0-feet beneath the existing Larkspur Energy Facility site, yielding to the underlying Oligocene-age sediments of the Otay Formation of Artin and Pickney (1973), which has yielded extensive terrestrial fossils (Walsh and Demere 1991). The Project site is underlain by thin localized fill deposits and Otay Formation. The Otay Formation is composed of light-brown and light-gray, medium- and coarse-grained, moderately well sorted, poorly indurated, massive nonmarine arkosic sandstone intertongued with siltstone and claystone. The sandstone is typically weakly cemented, but well cemented locally. The claystone is composed of light-gray bentonite displaying a waxy appearance in beds up to 1-meter in thickness.

3.4.1.5 Geologic Resources

There are no major geologic resources of current significance in the Otay Mesa area. Historically, bentonite, a clay mineral, was mined from the Otay Formation for commercial use. Bentonite of the Otay Formation is chiefly composed of water-laid ash derived from volcanic ash falls and is relatively free of clastic impurities and displays a relict waxy appearance. The clay occurs as several beds, averaging 3-feet in thickness, in a sequence of pale-gray arkosic sandstones (CDMG 1963). The first San Diego County's 'waxy' bentonites came from the Otay Formation when it was mined for use as a cleaning and de-colorizing agent, between 1917 and 1957 (Berry 1999).

In addition to bentonite, minor sand and gravel sources are present in the Otay River to the north of the site (CDMG 1963). There are no mines currently open within a 2-mile radius of the Project site.

3.4.1.6 Paleotonlogical Resources

It has been over 5 years since the PRA was prepared, as part of the 2001 AFC. As such, a supplemental field survey, literature review, and locality records search of the Project site and surrounding one mile were performed to update the assessment of potential impacts to paleontological resources resulting from Project construction. The review was performed by Mr. Stephen Diem a paleontologist with over nine years of experience in consulting geology. Mr. Diem's resume is provided in Appendix D.

As a part of the review, a search of known fossil localities was performed by the San Diego Museum of Natural History (SDMNH). The search covered the site and surrounding one mile radius, which includes the laydown areas. The search resulted in no records. In addition, a literature review of the geologic units that will be encountered was performed. The review indicates excavations at the site will extend through

units of the Otay Mesa Formation. The Otay Mesa Formation has a high potential to contain significant paleontological resources, as indicated in the PRA as a part of the AFC (Deméré 2001).

A field survey of the Project site and laydown areas was conducted by Mr. Diem on March 5, 2007. The site and laydown areas were traversed to look for paleontological resources.

3.4.2 Environmental Consequences

3.4.2.1 Geologic Hazards

3.4.2.1.1 Fault Rupture

The closest known active fault is the Rose Canyon fault located approximately 12-mles northwest of the Project and temporary construction laydown areas. The La Nacion fault zone is a relatively low activity fault and is considered potentially-active. The La Nacion fault displaces lower Pleistocene Lindavista Formation sediments and middle Pleistocene Bay sediments but doesn't displace upper Pleistocene stream-terrace deposits or Holocene alluvium (Kennedy and Tan 1977). This fault zone consists of widely spaced subparallel north-trending faults and is mapped approximately 4.5 miles northwest of the Project site. No Quaternary faults are known to exist on or adjacent to this site. Other known active faults within 62 miles (100-km) radius of the site are listed in Table 3.4.1.

3.4.2.1.2 Ground Shaking

The California Energy Commission (1989) recommends that non-nuclear power plants are designed to the level of conservatism implied by the Uniform Building Code (UBC) and California Building Code (CBC). The Project site is located adjacent east to the existing Larkspur Energy Facility site property as shown in Figure 2-2. The Project site, like most of southern California will be subject to moderate or high levels of ground shaking in the event of a large earthquake on a nearby fault. The site is located within Zone 4 of the UBC (International Conference of Building Codes) and the CBC, both of which imply a minimum horizontal acceleration of 0.4 g for use in earthquake resistance design of conventional structures. Given the site location, the 2002 California Geological Survey's Probabilistic Seismic Hazard Assessment (PSHA) mapping ground motion page reflects a value of 0.229 g of a 10 percent probability of exceedence in a 50-year period (i.e., a return period of 475 years assuming a Poisson distribution) for soft rock conditions for the top 100-feet and is in accordance with the UBC and CBC regulations.

TABLE 3.4.1
MAJOR QUATERNARY FAULTS AND PARAMETERS WITHIN ~100-KM RADIUS OF PROJECT

Fault Name	Approximate Distance from site[b] (mi)	Type of Faulting[a]	Fault Length[a] (km)	Slip Rate Range[a] (mm/year)	Maximum Moment Magnitude[a]	Comments
Rose Canyon FZ	12	R-l ss	70 ± 7	1.5 ± 0.5	7.2	CGS 2002
Coronado Bank	22	R-l ss	~ 40	2.0 to 6.0	(MCE 7.7)	Anderson et al. 1989
San Miguel-Vallecitos FZ	25	R-l- ss	~ 160	0.05 to 0.55	7.8	Hirabayashi et al. 1996
San Diego Trough	34	R-l ss	~ 50	0.05 to 1.0	(MCE 7.7)	Anderson et al. 1989
Elsinore (Coyote Mountain)	57	R-l ss	39 ± 4	4 ± 2	6.8	CGS 2002
Agua Blanca	62	R-l ss	~ 100	~ 4.0	7.0	Anderson et al. 1989
Laguna Salada	64	R-l ss	67 ± 7	3.5 ± 1.5	7.0	CGS 2002

Notes:

[a] Petersen et al. 1996. California Department of Conservation, Division of Mines and Geology, revised 2002.

[b] Distance measured from: USGS, Earthquakes Hazards Program / Quaternary Fault and Fold Database

3.4.2.1.3 Landslides

There are no landslides mapped at the Project site and given the relatively flatlying topography of the area, slope stability and landslides are not an anticipated hazard. In the 2001 geotechnical investigation, conducted by TerraPacific (2001), a geologic reconnaissance was performed and no landslides or other slope stability issues were identified in or around the Project site.

3.4.2.1.4 Seismically Induced Settlements

Subsidence resulting from tectonic deformations and seismically induced settlements is not a significant potential hazard at the Project site. The subsurface explorations by TerraPacific (2001), identify the near-surface soils as surficial soil and alluvium underlain by medium dense to dense sedimentary bedrock of the Otay Formation. The local anticipated earthquake effects and site stratigraphy suggest negligible seismically induced settlement effects for the Project site.

3.4.2.1.5 Expansive and Compressible Soils

The near surface soil conditions at the Project site are not likely to show any significant change from the conditions described in the previous geotechnical investigation by TerraPacific (2001). The 2001 study identifies the soil and formational materials at the Project site as exhibiting low to medium expansion potential. TerraPacific observations also suggest loose and/or porous soils indicating a moderate to high compressibility of the near-surface topsoil and alluvium.

3.4.2.1.6 Subsidence

Land subsidence occurs in valleys and basins as a result of fluid withdrawal. The Project site is located on a relatively flat mesa composed of Tertiary formational materials approximately 500 feet above mean sea level. Thus, the subsidence potential within the Project site is minimal and insignificant.

3.4.2.2 Mineral Resources

The site is not underlain by any known mineral resources of importance. There are no current or planned mining operations near the Project site. In addition, the Project site will only occupy approximately an additional 0.9 acre adjacent to the current 2.74-acre site. Thus, development of the Project site will not impact any mineral resources.

3.4.2.3 Paleontological Resources

The field survey did not encounter previously unknown paleontological resources. No new paleontological localities resulted from the search of known localities at the SDMNH. Considering the results of this investigation, there is no evidence to support a change in the paleontological sensitivity assessment for the Project. Project construction is not anticipated to adversely impact paleontological resources on the site.

3.4.3 Mitigation Measures

3.4.3.1 Geologic Hazards

3.4.3.1.1 Fault Rupture Hazard

There are no active faults identified within or adjacent to the Project site. Thus, there are no anticipated impacts to the site. No mitigations are recommended for the Project site.

3.4.3.1.2 Ground Shaking

The Project will be designed and constructed using appropriate building codes and construction methods. The components of the Project will be designed and constructed to the seismic design requirements for ground shaking specified in the CBC for Seismic Zone 4 at a minimum. These practices will reduce the potential impacts from ground shaking to less than significant.

3.4.3.1.3 Seismically Induced Settlements

Based on the site conditions and the TerraPacific geotechnical report (2001), seismically induced settlements are not a significant hazard at the Project site. The removal and recompaction or replacement of the surficial soils at the Project site will be mitigated for any potential settlement hazard to less than significant.

3.4.3.1.4 Subsidence

Given the site location and the anticipated absence or small magnitudes of subsidence, there is no significant impact to the site resulting from subsidence. No mitigation measures are recommended.

3.4.3.1.5 Collapsible and Expansive Soils

Low to medium expansive potential are present in the underlying soil and bedrock sediments beneath the Project site. The topsoil and/or alluvium underlying the Project site indicate a moderate to high compressibility. Terra Pacific's geotechnical report (2001) recommended the removal, blending, moisture conditioning, and recompaction of the surficial soils to a depth of approximately 5 to 6 feet. The report also noted that deeper removals may be necessary locally, based on site-specific conditions identified during grading. This selective grading and appropriate foundation design will reduce the potential impact from collapsible or expansive soils to less than significant.

3.4.3.1.6 Erosion and Sedimentation

The Project site and temporary construction laydown areas are situated within a very small watershed with low topographic relief. As a result, there is low potential for erosion, sedimentation, or channelized debris flows to impact the Project site. Standard BMPs, as outlined in Section 3.10 Soil and Water Resources, are recommended to control erosion and sedimentation.

3.4.3.1.7 Landslides

There are no landslides identified or mapped within and adjacent to the Project site and temporary construction laydown areas. Thus, there are no anticipated impacts to the sites and no mitigations are recommended.

3.4.3.2 Mineral Resources

The development of the Project site will not impact any mineral resources. No mitigation measures are recommended.

3.4.3.3 Paleontological Resources

Project construction is not anticipated to adversely impact paleontological resources on the site. Mitigation measures were not recommended as part of the PRA in support of the 2001 AFC (Deméré 2001). Therefore, mitigation measures are not recommended for the Project covered by this Amendment.

3.4.4 Consistency with LORS

The construction and operation of the Project, as amended, will conform with all applicable LORS related to geologic hazards, mineral resources, and paleontological resources. This assessment is consistent with Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontological Resources (Society of Vertebrate Paleontology 1995). Construction and operation of the Project will conform to applicable LORS related to paleontological resources.

TABLE 3.4.4-1
LORS APPLICABLE TO GEOLOGIC HAZARDS AND RESOURCES

LORS	Applicability	Conformance	AFC Section Where Conformance is Discussed.
Federal			
Federal Authorities and Administering Agencies Uniform Building Code	Code specifies acceptable design criteria for structures and excavations with respect to seismic design and load bearing capacity.	Project will conform to applicable Uniform Building Codes for specific design criteria for structures and excavations with respect to seismic and load bearing capacity.	3.4.4.1
State			
Alquist-Priolo Earthquake Fault Zoning	Not Applicable	Project is not within or crosses Alquist-Priolio Earthquake Fault Zoning.	3.4.4.2
State Authorities and Administering Agencies California Building Code 1195. Chapters, 16, 18 and 33	Code addresses excavation, grading and earthwork construction, including construction applicable to earthquake safety and seismic activity hazards.	Project will conform to applicable California Building Codes to earthquake safety and seismic activity hazards of Chapters 16, 18, and 33.	3.4.4.2
California Public Resources Code 25523(a): 20 CCR § 1252 (b) and (c).	Not Applicable	Project is not within or crosses Alquist-Priolio Earthquake Fault Zoning.	3.4.4.2
California Environmental Quality Act of 1970 (CEQA).	Act addresses rules and regulations to implement the California Environmental Quality Act. Appendix G, Section VI of the CEQA guidelines contains the geologic hazards and resources.	Project will comply with the requirements of the CEC to assure protection of geologic hazards and resources.	3.4.4.2
Local			
Local Authorities and Administering Agencies: City of San Diego Design Standards, Chapters 11 – 15 of the City of San Diego Municipal Code	Regulates building and grading permits and adopts and amends CBC.	Project will comply with land development codes and apply for permits amending to the CBC.	3.4.4.3
City of San Diego General Plan: Seismic Safety Element	Reduce the risk of hazard resulting from future seismic and related elements though identifying seismic and other geological hazards and addressing guidelines of related land use classes to seismic risk zones.	Project will comply with seismic safety assessment and evaluation necessary for the amendment for establishing related geologic hazards.	3.4.4.3

3.4.4.1 Federal

Federal Authorities and Administering Agencies Uniform Building Code.

The UBC specifies acceptable design criteria for structures and excavations with respect to seismic design and load bearing capacity. The City of San Diego is responsible for building code enforcement.

3.4.4.2 State

Alquist-Priolo Earthquake Fault Zoning Act.

This law identifies areas subject to surface rupture from active faults.

California Building Code (CBC) 1195, Chapter 16, 18 and 33.

The 2001 edition of the CBC is based on the UBC 1997 edition with revisions specifically tailored to geologic hazards in California.

Chapter 16: Structural Design Requirements, Division IV Earthquake Design.

This section requires structural designs to be based on geologic information for seismic parameters, soil characteristics, and site geology.

Chapter 18: Foundations and Retaining Walls, Division I.

This section sets requirements for excavations and fills, foundations, and retaining structures, with regard to expansive soils, subgrade bearing capacity, seismic parameters, and also addresses waterproofing and damp proofing foundations. In Seismic Zones 3 and 4, as defined by the UBC, liquefaction potential at the site should be evaluated. Division III contains requirements for mitigating effects of expansive soils for slab-on-grade foundations.

Chapter 33: Site Work, Demolition and Construction, and Appendix Chapter 33.

These sections establish rules and regulations for construction of cut-and-fill slopes, fill placement for structural support, and slope setbacks for foundations.

These elements set forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments. It establishes basic policies to safeguard life, limb, property, and public welfare by regulating grading on private property.

The geotechnical engineer and engineering geologist will certify the placement of fills and adequacy of the site for structural improvements in accordance with the CBC, Appendix Chapter 33.

The geotechnical engineer will address Sections 3309 (Grading Permit Requirements), 3312 (Cuts), 3315 (Drainage and Terracing), 3316 (Erosion Control), 3317 (Grading Inspection), and 3318 (Completion of Work) of the CBC, Appendix Chapter 33.

California Public Resources Code 25523(a): 20 CCR § 1252 (b) and (c).

None of the Project components are located within or cross an Alquist–Priolo earthquake zone. The Project will not be subject to requirements for construction within an earthquake fault zone.

California Environmental Quality Act of 1970 (CEQA).

The CEC will be the lead agency for rules and regulations to implement CEQA. Appendix G, Section VI of CEQA guidelines contains the geologic hazards and resources related to the Project.

3.4.4.3 Local

Local Authorities and Administering Agencies City of San Diego Design Standards.

The City of San Diego has established design standards that are enforced through the building permit and grading processes. The regulations, amendments and related documents of the Land Development Code are implemented in Chapters 11-15 of the Municipal Code.

City of San Diego General Plan: Seismic Safety Element.

The Seismic Safety element of the City of San Diego General Plan provides an implementation program to reduce the threat of seismic and public safety hazards. This will consist of an identification and evaluation, if any, of susceptibility to surface ruptures from faulting, to ground shaking, to ground failures including mudslides, landslides, and slopes stability.

The Project would comply with all of the Seismic Safety Elements of the San Diego General Plan. No active faults cross the Project site.

TABLE 3.4.4-2
APPLICABLE AGENCIES AND AGENCY CONTACTS

	Agency	Contact/Title	Telephone
1	California Energy Commission	Robert Anderson, Geologist	916-654-3836
2	State of California, Geologic Survey	John Parrish, State Geologist	916-445-1825
3	City of San Diego , Development Services	Afsaneh Ahmad, Chief Building Official, Chief Deputy Director	619-446-5406

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3.4.6 Conditions of Certification

This Amendment does not require changes to the conditions identified in the Larkspur Energy Facility Conditions of Certification (CEC 2001).