

5.3 GEOLOGICAL HAZARDS AND RESOURCES

In this section, the geologic hazards of surface fault rupture, earthquake ground shaking, liquefaction, slope stability, subsidence, and expansive soils for the PEF Expansion are addressed. The geologic resources of the project area, including the geologic and seismotectonic settings of the region are also described. The environmental consequences of developing the PEF Expansion are also discussed, along with the Applicant's proposal to apply applicable Conditions of Certification for the existing PEF to the PEF Expansion.

The PEF Expansion consists of a nominal 160 MW simple cycle combustion turbine generator. The PEF Expansion area will be approximately two acres located entirely within the existing PEF 31-acre site boundary. The PEF expansion requires no modification to the existing PEF offsite linear facilities (e.g., electric transmission line, fuel gas supply line, or water supply line). The PEF Expansion will use the existing PEF administration and control, warehouse and shop, and water treatment buildings. Site access and onsite roadways are common with the existing PEF. Figure 3.1-1 of this application depicts the new facilities required for the PEF Expansion project within the footprint of the existing PEF.

5.3.1 Affected Environment

The affected environment for the PEF Expansion is generally as described in 99-AFC-7, as amended. The Geological Hazards and Resources Section 5.3 of 99-AFC-7 is included for reference as part of Attachment B, Geological Hazards and Resource Materials, appended to this application. Extensive geotechnical data has been documented and submitted to the CEC as part of construction compliance requirements. A summary of these materials is included in Attachment B to this application.

5.3.2 Environmental Consequences

The PEF Expansion will share common facilities with the existing PEF so the site disturbance remains unchanged from the existing PEF. Consequently, no new impacts to geological hazards and resources are expected as a result of the PEF Expansion.

5.3.3 Mitigation Measures

The Applicant proposes to apply the applicable Conditions of Certification for the existing PEF to the PEF Expansion. The Conditions of Certification for the PEF are included in Section 9.0 of this application. With the implementation of the applicable Conditions of Certification, no significant unavoidable adverse impacts to geological hazards and resources are anticipated due to construction or operation of the PEF Expansion.

5.3.4 LORS Compliance

The PEF Expansion will comply with applicable LORS related to geologic hazards and resources. A complete list of the applicable LORS for geological hazards and resources are included for reference in Section 7.0 LORS of this application.

5.3.5 References

The geological and hazard references from 99-AFC-7 are applicable for the PEF Expansion. The references from Section 5.3 of 99-AFC-7 are included as part of Attachment B of this application.