

## **5.6 HAZARDS AND HAZARDOUS MATERIALS**

### **5.6.1 Introduction**

This section addresses the potential for impacts related to the presence and use of hazards/hazardous materials at the proposed project site.

### **5.6.2 Environmental Setting**

The project is located in southern San Luis Obispo County, which is situated in the southern Coast Ranges geomorphic province of California. The Arroyo Grande Oil Field is located in Price Canyon in the southern portion of the San Luis Range.

The oldest rocks in the San Luis Range belong to the Jurassic-aged Franciscan formation, which forms the basement complex. The Franciscan formation is predominantly comprised of graywacke sandstone, with lesser amounts of shale, limestone, chert, and altered submarine volcanic rocks. Thickness of the Franciscan formation is estimated to be in excess of 25,000 feet. The Franciscan formation is unconformably overlain in the Arroyo Grande Oil Field by the Miocene-aged Monterey and Miocene/Pliocene-aged Pismo formations (ERCO 1981).

The Monterey formation is composed primarily of siliceous and porcelanous shales interbedded with dolomite/limestone, chert, and volcanic ash. The Monterey formation in the Arroyo Grande Oil Field is subdivided into four members: the Tuffaceous Member (Tmmt), the Siliceous Member (Tmmp), the Diatomaceous Member (Tmmd), and the Silty Member (Tmms) (ERCO 1981). Although no hydrocarbons are directly produced from the Monterey Formation, it is believed to be the source rock for the Arroyo Grande field reservoirs. The late Mio-Pliocene Pismo formation unconformably overlies the Monterey formation and consists of lenticular fine to coarse grained friable sandstone, calcareous siltstone, pebble conglomerate, and siliceous, cherty shale. The Pismo formation in the Arroyo Grande Oil Field area is subdivided into the Edna Member (late Miocene), an intermediate undifferentiated Member, and the Squire Member (Pliocene). The Edna Member is a massive buff to white coarse-grained bituminous sandstone, with layers of coarse pebble- or boulder-size components appearing randomly throughout the member.

Groundwater flow in the region is generally controlled by the local topography and geology. Groundwater in the site area follows the topographic gradient to the southwest, and is probably bounded by the local hills to the northwest and southeast. The majority of stored potable groundwater at the site is likely to be found in the shallow alluvial deposits associated with Pismo Creek.

The project site lies within an area of high fire hazard according to the County of San Luis Obispo Safety Element maps.

### 5.6.2.1 Current Site Conditions

The proposed project would be located within a developed area of the Arroyo Grande Oil Field. The proposed project site is located north of an existing separation facility and west of an existing natural gas treatment facility. The vicinity of the proposed project site has been utilized for petroleum production for many years and may contain areas of petroleum hydrocarbon-containing soil.

### 5.6.3 Regulatory Setting

The following section provides a brief description of some of the applicable state and federal regulations relating to the use, storage, and disposal of hazardous substances and petroleum.

#### 5.6.3.1 Federal Laws/Regulations

*Federal Water Pollution Control Act of 1972 (Clean Water Act).* The Clean Water Act governs the control of water pollution in the United States. This Act includes the National Pollutant Discharge Elimination System (NPDES) program, which requires that permits be obtained for point discharges of wastewater. This Act also requires that storm water discharges be permitted, monitored, and controlled for public and private entities.

*Resource Control and Recovery Act of 1974 (RCRA).* RCRA was enacted as the first step in the regulation of the potential health and environmental problems associated with solid hazardous and non-hazardous waste disposal. RCRA, and the formation of the U.S. EPA to implement the RCRA, provide the framework for national hazardous waste management, including tracking hazardous wastes from point of origin to ultimate disposal.

*Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).* Under CERCLA, owners and operators of real estate where there is hazardous substances contamination may be held strictly liable for the costs of cleaning up contamination found on their property. No evidence linking the owner/operator with the placement of the hazardous substances on the property is required. CERCLA, also known as Superfund, established a fund for the assessment and remediation of the worst hazardous waste sites in the nation. Exceptions are provided for crude oil wastes that are not subject to CERCLA.

*Hazardous and Solid Waste Amendments of 1984 (HSWA).* The HSWA law was enacted to close RCRA loopholes and regulated leaking underground storage tanks (USTs) specifically. The SWRCB, the RWQCB, and the local County Division of Environmental Health, as a Certified Unified Program Agency (CUPA) program, oversee UST regulations and cleanup of leaking USTs.

*Asbestos Hazard Emergency Response Act of 1986 (AHERA).* The AHERA is the federal legislation that governs the management and abatement of asbestos-containing materials in buildings.

*National Emission Standards for Hazardous Air Pollutants; Asbestos, 40 CFR Part 61.* This regulation requires the assessment and proper removal of asbestos-containing materials that could release asbestos when disturbed prior to the demolition of buildings.

*Clean Air Act.* The regulatory programs that govern stationary sources of air pollution apply to any facility that emits or has the potential to emit conventional pollutants: oxides of nitrogen and sulfur, carbon monoxide, VOCs or particulate matter. It may also apply to emission sources of certain toxic chemicals. In addition to the existing air district permitting programs required by state law and district rules, a new federal operating permit program must be implemented to meet EPA regulations adopted pursuant to Title V of the 1990 amendments of the Clean Air Act. Locally the Clean Air Act regulations are implemented and enforced by the San Luis Obispo APCD.

### 5.6.3.2 California Laws/Regulations

*Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code).* The Porter-Cologne Act established a regulatory program to protect water quality and protect beneficial uses of the state's waters. The Porter-Cologne Act also established the State Water Resources Control Board and nine regional boards as the main state agencies responsible for water quality in the state. Discharges of wastes (including spills, leaks, or historical disposal sites) where they may impact the waters of the state are prohibited under the Porter-Cologne Act, including the discharge of hazardous wastes and petroleum products. The assessment and remediation of these waters are regulated by the regional boards, the RWQCB administers such waters in the vicinity of the proposed project.

*Title 22, California Code of Regulations.* Title 22 of the CCR regulates the use and disposal of hazardous substances in California. It contains regulatory thresholds for hazardous wastes which are more restrictive than the federal hazardous waste regulations.

*California Health and Safety Code Sections 25500 et seq.* The California community right-to-know hazardous material law applies to any facility that handles any hazardous material (chemical, chemical-containing products, hazardous wastes, etc.) in a quantity that exceeds reporting thresholds. The most common thresholds that trigger regulation based on that state statute are 500 pounds of solid, 55 gallons of liquid, and 200 cubic feet of compressed gas, based on the presence of individual chemicals. The basic requirements of hazardous materials and community right-to-know regulations for covered facilities include:

- Determining whether the facility handles hazardous materials;
- Immediate reporting of releases of hazardous materials;
- Submission and update of a Hazardous Materials Business Plan (including a accurate chemical inventory, site map showing hazardous materials storage locations, emergency response plan, and notification procedures) as required by the local administering agency;

- Notification of the local administering agency of the handling of specified quantities of acute hazardous materials and submission of a Risk Management Plan (RMP) as required;
- Annual submission for manufacturing facilities of a Toxic Chemical Release Report (Form R) if threshold amounts of certain toxic chemicals are made, or processed for use; and,
- Requirements for hazardous materials storage imposed by local administering agencies, fire departments, and California Occupational Safety and Health Administration (Cal/OSHA) standards.

*California Air Resources Board - Air Toxics Control Measure.* Under the California Air Resources Board Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to construction permit issuance, a geologic evaluation is required to determine the presence or absence of naturally-occurring asbestos. If naturally occurring asbestos is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM before grading may begin. These requirements may include, but are not limited to, 1) preparation of an "Asbestos Dust Mitigation Plan," which must be approved by APCD before grading begins; and 2) an "Asbestos Health and Safety Program", as determined necessary by APCD.

*California Fire Code.* The 2001 California Fire Code has been adopted by CDF/County Fire, which is the fire agency with jurisdiction over the project site. The California Fire Code contains minimum standards for many aspects of fire prevention and suppression activities. These standards include provisions for access, water supply, fire protection systems and fire resistant building materials. The California Fire Code also includes provisions for required setbacks for oil wells from buildings, storage tanks, and streets and railways.

### 5.6.3.3 County of San Luis Obispo Regulations

*Energy Element.* In 1995, the County of San Luis Obispo adopted the Energy Element as part of the County's General Plan. The Energy Element contains a goal of protecting public health, safety and environment, and several policies that promote the stated goal. Applicable policies are summarized below:

Policy 56. Encourage existing and proposed facilities to focus on measures and procedures that prevent oil, gas, and other toxic releases into the environment. This policy is to ensure that facilities: (1) take measures to prevent releases and spills, (2) prepare for responding to a spill or release, and 3) provide for the protection of sensitive resources. A review of a facilities spill response plan, or reports from other agencies, should be completed to monitor compliance.

Policy 64. Guideline 64.1. To reduce the possibility of injury to the public, facility employees, or the environment, the applicant shall submit an emergency response plan which details response procedures for incidents that may affect human health and safety or the environment. The plan shall be based on the results of the comprehensive risk

analysis. In the case of a facility modification, the existing response plan shall be evaluated by the safety review committee and revisions made as recommended.

#### 5.6.4 Impact Analysis

##### 5.6.4.1 Thresholds of Significance

For the purposes of the EIR, a potential impact related to the presence of hazardous materials and/or risk of upset impact of hazardous materials is identified as significant based on the following thresholds:

1. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
2. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials within one-quarter mile of an existing or proposed school;
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List) and, as a result, would create a significant hazard to the public or the environment;
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
6. For a project within the vicinity of a private airstrip, would the project result in the safety hazard for people residing or working in the project area;
7. Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and,
8. Expose people or structures to a significant risk or loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

##### 5.6.4.2 Project Impacts

**Impact HAZ-1.** Operation of the proposed water treatment facilities would include the use of containing hazardous chemicals which could potentially impact the project site, Price Canyon Road, and potentially Pismo Creek if ruptured during an upset condition.

**Discussion:** Operation of the proposed water treatment facilities would include the use of hazardous chemicals, including soda ash, caustic soda, sulfuric acid, and anti-scaling

additives. These chemicals would be stored on-site and used in the treatment system on a regular basis. The anticipated volumes of hazardous chemicals used or stored on-site would be limited to adequate amounts needed for the water treatment system. The use of these materials is not anticipated to result in a significant impact due to hazards to employees, the public, or the environment. No hazardous wastes are anticipated to be generated from the proposed project activities. The applicant would be required to submit an amended Hazardous Materials Business Plan with the County of San Luis Obispo Division of Environmental Health (SLODEH). See Impact AQ-2 (Section 5.2) for a discussion of hazardous emissions from the proposed air strippers.

**Impact Category:** Class 2

**Thresholds of Significance Criteria:** 3

**Mitigation Measures: HAZ-1:** Prior to system start-up, the applicant shall submit an amended Hazardous Materials Business Plan to the San Luis Obispo Division of Environmental Health for review and approval.

**Residual Impacts**

Impact Category = Class 3. Residual impacts would be less than significant.

**Impact HAZ-2.** Petroleum hydrocarbon-containing soil may be encountered during project construction activities.

**Discussion:** The project site is located within a developed area of the existing oil field that may contain contaminated soils. Contaminated soils could be disturbed during construction activities which may pose a risk to on-site workers. Off-site disposal of contaminated soils could pose a safety risk to the public if not disposed in a licensed disposal facility. In addition to the implementation of Mitigation Measure HAZ-2A, HAZ-2B addresses APCD requirements with regards to hydrocarbon-containing soils.

**Impact Category:** Class 2

**Thresholds of Significance Criteria:** 1, 2

**Mitigation Measure:**

**HAZ-2A:** The applicant shall complete an environmental site assessment of areas to be utilized for the proposed project to determine whether the project site has been impacted with petroleum or hazardous substances. The site assessment work plan shall be prepared by a registered professional and submitted to the SLODEH for review and approval prior to implementation. The site assessment activities shall include the advancement of drill holes and collection of soil and, if contamination is present, groundwater samples for chemical analyses. A site assessment report shall be submitted to SLODEH for review and approval. If necessary, a corrective action plan

shall be submitted to SLODEH for the proper management of contaminated soil and groundwater that may be disturbed as part of the proposed project grading activities. Corrective actions shall be completed at the project site to the satisfaction of SLODEH prior to implementation of the proposed grading activities. Corrective actions, other than compliance with the RWQCB's beneficial reuse provisions for crude oil-containing soil excavated during the course of project construction activities, shall not be required for naturally-occurring petroleum hydrocarbon containing soils present at the project site.

**HAZ-2B:** Should hydrocarbon contaminated soil be encountered during construction activities, the APCD must be notified as soon as possible and no later than 48 hours after affected material is discovered to determine if an APCD Permit would be required. In addition, the following measures shall be implemented immediately after contaminated soil is discovered:

- Covers on storage piles shall be maintained in place at all times in areas not actively involved in soil addition or removal;
- Contaminated soil shall be covered with at least six inches of packed uncontaminated soil or other TPH -non-permeable barrier such as plastic tarp. No headspace shall be allowed where vapors could accumulate;
- Covered piles shall be designed in such a way to eliminate erosion due to wind or water. No openings in the covers are permitted;
- During soil excavation, odors shall not be evident to such a degree as to cause a public nuisance; and,
- Clean soil must be segregated from contaminated soil.

Crude oil-containing soil excavated during the course of project construction activities shall be handled and reused on-site in accordance with the RWQCB's Beneficial Reuse Order #R3-2005-005. The notification and permitting determination requirements shall be directed to Karen Brooks of the APCD Enforcement Division at (805) 781-5912.

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**Residual Impacts:**

Impact Category = Class 3. Residual impacts would be less than significant.

**Impact HAZ-3.** Location of the project within a high fire hazard could result in additional fire risk for the project area.

**Discussion:** The project site is located within an area of high fire hazard, as shown on the County of San Luis Obispo's Natural Hazard Disclosure Maps - Fire Hazard Map (<http://landarch.larc.calpoly.edu/slocounty/nhd.htm>). The applicant maintains an emergency response plan which includes fires occurring at the oil field property. The applicant would incorporate the operation of the water treatment facility into existing fire safety plans and emergency response procedures.

**Impact Category:** Class 2

**Thresholds of Significance Criteria: 8**

**Mitigation Measure HAZ-3:**

**HAZ-3A** - The applicant shall submit a Fire Hydrant System plan to County/CALFIRE for approval prior to construction. This plan shall be implemented before construction commences.

**HAZ-3B** - The applicant shall submit a vegetation management plan to County/CALFIRE for approval prior to issuance of construction permits. This would identify measures to minimize the risk of wildfires due to operation of existing and proposed facilities. It would also make recommendations for protection of such facilities from a wildfire.

**Residual Impacts:**

Impact Category = Class 3. Residual impacts would be less than significant.

**5.6.4.3 Remaining Hazards Issue Areas**

The proposed project is not within one-quarter mile of an existing or proposed school. The project site is not included on the Cortese list of hazardous materials sites. The project site is not located within the regulated area of an adopted airport land use plan, or within two miles of a public airport or private airstrip. The project site is located adjacent to Price Canyon Road, and would not impair the implementation of or interfere with an adopted emergency response or evacuation plan.

**5.6.4.4 Cumulative Impacts**

The project site lies within the Arroyo Grande Oil Field which is an active oil production facility. Hazards impacts are anticipated to be localized in nature. Therefore, projects would not contribute to project-specific hazardous materials impacts, and cumulative impacts would be significant but mitigable.