4.11 Public Services and Utilities

This section details the environmental and regulatory setting of the Rail Spur Project relevant to public services and utilities. It also identifies significance thresholds and impacts to public services and utilities related to the Rail Spur Project, as well as proposed mitigations for the significant impacts. Cumulative impacts to public services and utilities are also discussed. The public services and utilities relevant to the Rail Spur Project include:

- Solid Waste (non-hazardous);
- Electrical Utilities;
- Fire Protection Services; and
- Police Services.

Preparing of the Initial Study determined that the Rail Spur Project would not cause significant impacts to libraries, or schools; therefore, this section does not address those public services. In addition, the Rail Spur Project would not use natural gas, so natural gas utilities are not discussed.

Water supply for the Rail Spur Project would be provided by groundwater wells that are not part of a public service or utility. Impacts associated with water supply are addressed in Section 4.13 (Water Resources). In addition, potential impacts to Amtrak service, a public transit service provider, are addressed in Section 4.12, Transportation and Circulation.

Appendix F of CEQA requires an EIR to include discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)). According to Appendix F of the State CEQA Guidelines, the goal of conserving energy implies the wise and efficient use of energy including: (1) decreasing overall per capita energy consumption; (2) decreasing reliance on natural gas and oil; and (3) increasing reliance on renewable energy sources. The discussion of energy conservation is provided in Chapter 6 of the EIR.

4.11.1 Environmental Setting

This section discusses the environmental setting for the applicable utilities and public services.

4.11.1.1 Solid Waste Disposal

This section the existing conditions for the landfills operated in the County of San Luis Obispo.

San Luis Obispo County Integrated Waste Management Authority
The Project Site is within the San Luis Obispo Integrated Waste Management Authority (IWMA) jurisdiction. The County of San Luis Obispo consists of seven incorporated cities and numerous unincorporated areas within its 3,304 square miles and has a population of 272,177 people (2013 estimate) (California Department of Finance 2013). Each jurisdiction of the County

is responsible for its own solid waste management. Solid waste generated in San Luis Obispo County is mostly residential waste, construction wastes, commercial and industrial wastes, and sludge residues (wastes remaining at the end of the sewage treatment process). In most cases, solid waste is hauled directly to major Class III landfills, and the remainder is taken to transfer stations, resource recovery centers, and composting facilities.

According to the Department of Resources Recycling and Recovery (CalRecycle) (formerly the California Integrated Waste Management Board or CIWMB), in 2011 the residents and businesses of San Luis Obispo County disposed of approximately 228,975 tons of solid waste in permitted landfill facilities with a calculated disposal rate (pounds/person/day) of 4.6, which meets the target rate of 7.4. (CalRecycle 2013a).

Table 4.11.1 shows that solid waste is disposed of at three Class III landfills within the County of San Luis Obispo: Cold Canyon, Chicago Grade, and City of Paso Robles. Figure 4.11-1 shows the location of these three landfills.

In 2011, a total of approximately 226,220 tons were disposed of at these landfills (CalRecycle 2013b). According to CalRecycle's Solid Waste Information System database, approximately 15.5 million cubic yards remained among landfills in the County (CalRecycle 2013c). The Cold Canyon Landfill will probably be the primary landfill serving the Rail Spur Project. The SMR is served by South County Sanitary Services.

Table 4.11.1 San Luis Obispo County Class III Landfill Capacity and Usage

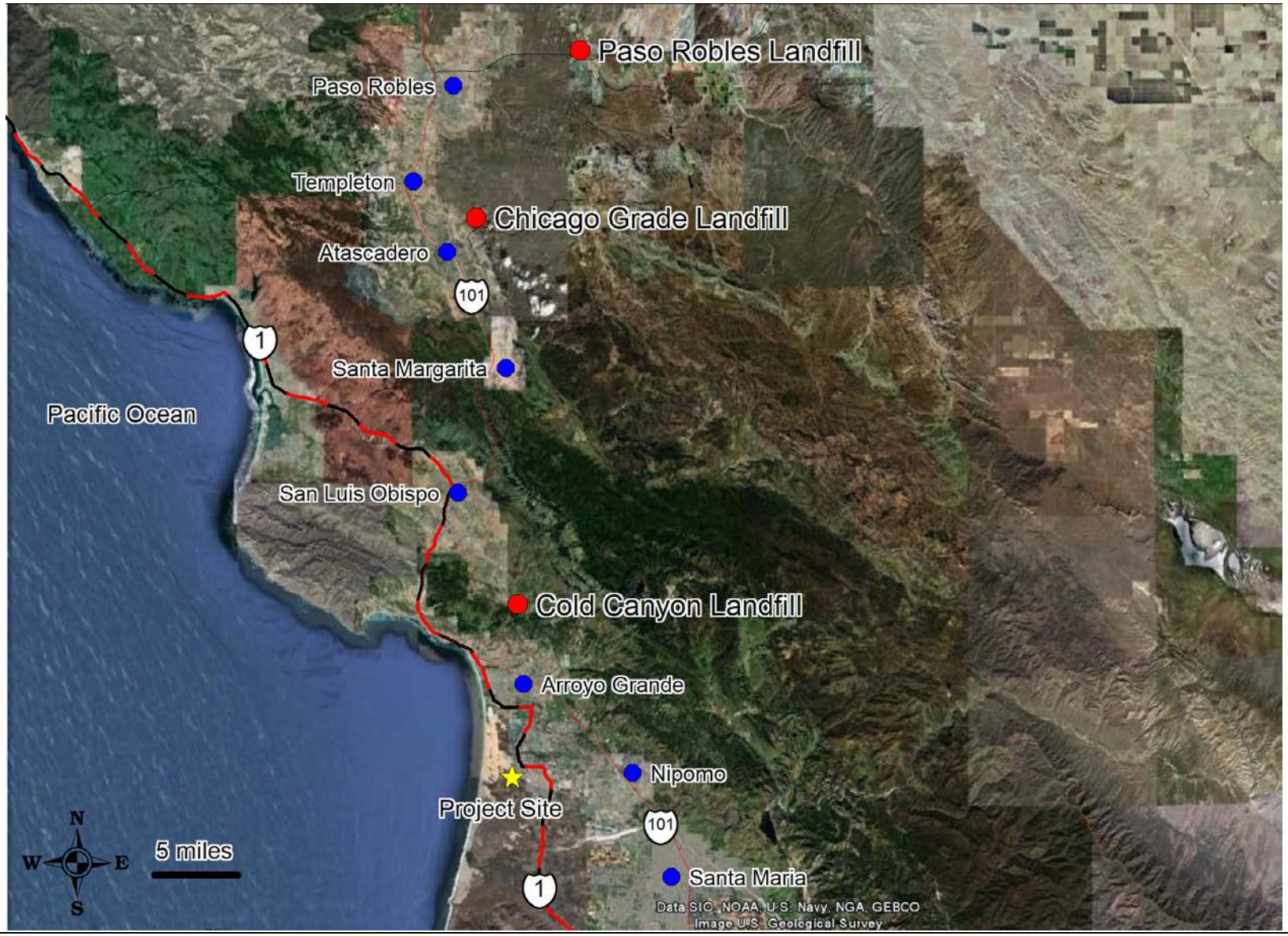
Landfill	Permitted Daily Capacity (tons)[a]	2011Total Solid Waste Disposal (tons)[b]	2011 Average Daily Disposal (tons)[c]	Maximum Permitted Capacity (cubic yards)[a]	Estimated Remaining Permitted Capacity (cubic yards)[ad]
Cold Canyon	1,200	146,176	412	10,900,000	1,830,000
Chicago Grade	500	46,752	132	8,950,220	8,329,699
City of Paso Robles	450	33,292	108	6,495,000	5,327,500
Total	**2,150**	**226,220**	**652**	**26,345,220**	**15,487,199**

a. Source: CalRecycle 2013b
b. Source: CalRecycle 2013b
c. The average daily disposal for each landfill was found by dividing the 2007 total solid waste disposal by the approximate number of days the landfill opened per year. Excluding holidays, both Cold Canyon and Chicago Grade Landfill landfills are open every day of the year. City of Pas Robles is closed every Sunday and on Holidays. Federal law (5 U.S.C. 6103) establishes 10 legal public holidays a year.
d. The remaining capacity for each landfill was estimated on the following date: Cold Canyon Landfill on June 2, 2010; Chicago Grade Landfill on May 1, 2007; and City of Paso Robles Landfill on May 1, 2007.

Cold Canyon Landfill

The Cold Canyon Landfill is approximately 11 miles north of the Project Site on State Route 227. The landfill currently operates six days per week and is closed on Sunday. The Cold Canyon Landfill is a Class III landfill and currently operates on Solid Waste Permit Facility # 40-AA-0004 (issued January 29, 2002).

Figure 4.11-1 Area Landfills



The facility accepts or permits: agricultural waste, construction and demolition waste, dead animals, industrial waste, mixed municipal waste, tires, contaminated soil, green materials, inert waste, and sludge (i.e., biosolids).

Based on the figures provided in Table 4.11.1, in 2011, the landfill operated at approximately 34 percent of its permitted daily capacity. As of June 2010, the landfill had a remaining capacity of approximately 1.83 million cubic yards. In November 2012, the Board of Supervisors approved a proposal to expand the landfill's disposal-area footprint by approximately 46 acres (to total 134 acres), creating capacity for an additional 13.1 million cubic yards, which would extend the landfill operation date until the year 2040. This increase would accommodate anticipated increases in recyclable materials and maintain existing disposal limits.

Chicago Grade Landfill

The Chicago Grade Landfill, open 7 days per week, is a 76.4-acre permitted landfill on a 188-acre parcel at 2290 Homestead Road in Templeton, California. The Chicago Grade Landfill is also a Class III facility and was recently expanded in fall 2007. As shown in Table 4.11.1, the current permitted daily maximum capacity is 500 tons. In 2009, total waste disposal in the landfill was approximately 56,757 tons. The Chicago Grade Landfill accepts or permits: agricultural waste, construction and demolition waste, contaminated soil, food wastes, industrial waste, metals, tires, asbestos, dead animals, green materials, inert waste, mixed municipal waste, and sludge (i.e., biosolids). The landfill is scheduled to close around 2042.

Paso Robles Landfill

The City of Paso Robles owns and operates Paso Robles Landfill, 8.5 miles east of Paso Robles off of State Route 46. As indicated in Table 4.11.1, the Paso Robles Landfill's permitted daily maximum capacity is 450 tons, which was recently expanded from 250 tons in Solid Waste Facility Permit #40-AA-0001 (issued January 23, 2008). In 2009, total waste disposal in the landfill was 34,288 tons; the San Luis Obispo County IWMA was the primary jurisdiction sending materials. The landfill is scheduled to close around 2051.

4.11.1.2 Electrical Utilities

Pacific Gas and Electric Company (PG&E) currently provides electricity to the Project Site that is not otherwise produced by the power-generating unit at the SMR. PG&E operates a local planning office at 4325 Higuera Street in the City of San Luis Obispo and operates the San Luis Obispo Substation on the corner of Orcutt Road and Johnson Avenue, approximately 19 miles north of the Project Site.

As shown in Table 4.11.2, the County of San Luis Obispo consumed approximately 1,650 thousand megawatt-hours of electricity in 2010 and 1,674 megawatt-hours of electricity in 2011.

PG&E generates electricity from the following sources: (1) PG&E-owned hydropower, gas-fired steam, and nuclear generators; (2) independent generators; and (3) out-of state generators. A network of high-voltage transmission lines carries electricity generated from the power plants to substations. Substations use transformers to decrease the voltage of electricity to connect with the distribution system.

Table 4.11.2 San Luis Obispo County Electricity Consumption

Land Use	Electricity Consumption (Thousands of MW-hrs)	
	2010	2011
Non–Residential	990	1,014
Residential	660	660
Total	**1,650**	**1,674**

Sources: Source: California Consumption Data Management System, accessed from: http://www.ecdms.energy.ca.gov/elecbycounty.aspx, and http://www.ecdms.energy.ca.gov/gasbycounty.aspx on April 23, 2013

Individual services or "drops" connect the distribution system to the industrial, commercial, agricultural, and residential customers. Table 4.11.3 shows megawatt-hours of electricity consumed in the PG&E planning area from 2004 through 2011. As shown in the table, commercial, industrial, and residential land uses consumed the majority of the kilowatt-hours of electricity in planning area.

Table 4.11.3 PG&E Planning Area Electricity Consumption (Thousands of MW-hrs)

Land Use	2004	2005	2006	2007	2008	2009	2010	2011
Agriculture & Water Pump	6,778	5,402	6,010	7,908	7,908	7,659	7,182	5,930
Commercial Building	35,741	35,819	36,943	39,191	39,474	37,491	37,890	37,039
Commercial Other	4,987	5,113	5,407	5,394	5,910	6,193	6,018	6,283
Industry	18,352	18,619	18,561	19,011	18,678	17,226	17,247	16,987
Mining & Construction	2,642	2,863	2,912	3,521	3,461	3,429	3,605	4,005
Residential	32,708	33,106	34,345	34,324	35,320	34,939	34,625	35,086
Streetlight	532	537	542	457	475	511	515	499
Total Usage	**101,740**	**101,459**	**104,720**	**109,806**	**111,226**	**107,448**	**107,082**	**105,829**

Source: California Consumption Data Management System, accessed from: http://www.ecdms.energy.ca.gov/elecbyplan.aspx, on April 23, 2013.

The rail spur operations would require additional electricity to operate pumps and unloading equipment, which would be received from the SMR electrical generation systems and/or the grid. Electrical demand for the additional equipment and operations would average 900 kW assuming 250 trains per year. The peak power consumption would be about 1,000 kW.

4.11.1.3 Fire Protection Services

The Rail Spur Project is within a Local Responsibility Area and in a High Fire Hazard Zone. This subsection identifies the fire-protection service providers for the Project Site and potential and expected response times from the fire stations, analysis of the adequacy of reliable or adequate fire flow, water pressure, and other fire department resources during a major fire, and an analysis of emergency access routes. The Project Site is currently under the jurisdiction of the California Department of Forestry and Fire Protection/San Luis Obispo County Fire Department (Cal Fire), which would continue to serve the site.

California Department of Forestry and Fire Protection / San Luis Obispo County Fire Department (Cal Fire)

The Project Site currently receives fire protection and paramedic service from Cal Fire. Cal Fire, a California state agency, functions as the San Luis Obispo County Fire Department under a contract with the County.

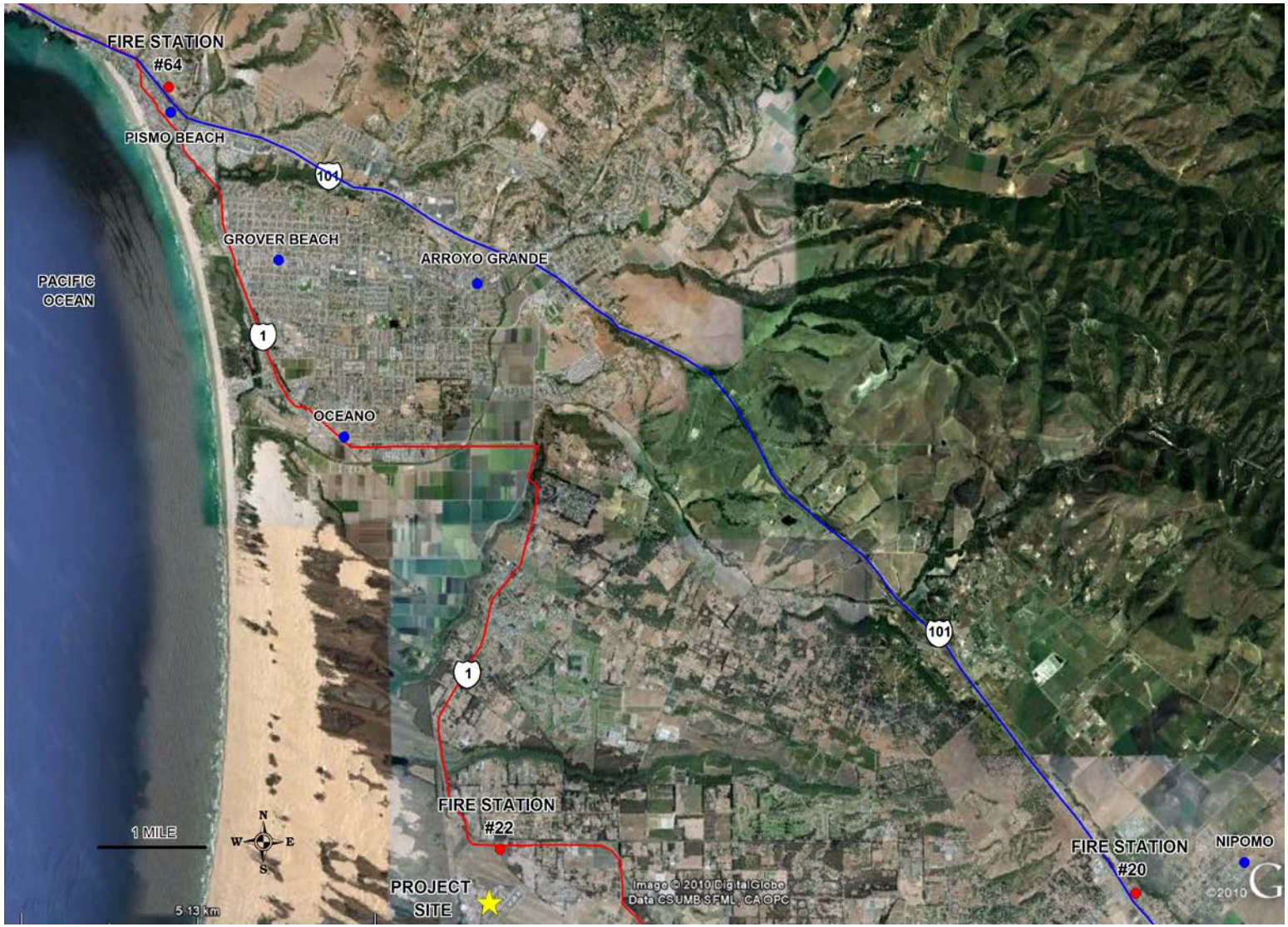
Fire Station #22 (Mesa Fire Station) at 2391 Willow Road in Arroyo Grande, less than 0.5 miles away from the SMR, is the jurisdictional station ("first in") for the Project Site and has a five minute response time. Station 22 staffs up to 29 firefighter personnel, including one Fire Captain, one Fire Apparatus Engineer, two licensed paramedics, and 25 paid call firefighters dispatched via radio pager (Cal Fire 2013).

The next closest station to the Project Site is Fire Station #20 (Nipomo Fire Station) at 450 Pioneer Avenue in Nipomo, which is approximately 8 miles away and has an eight minute response time. Station 20 staffs up to 29 firefighter personnel, including one Fire Captain, one Fire Apparatus Engineer, two licensed paramedics, and 25 paid call firefighters dispatched via radio pager (Cal Fire 2013). Figure 4.11-2, San Luis Obispo County Fire Stations, shows the proximity of the fire stations to the Project Site.

Cal Fire has two specialized teams, which include the Urban Search and Rescue Team comprised of 19 members, and a Hazardous Materials Team comprised of 30 members from Cal Fire, San Luis Obispo City, Arroyo Grande Fire, Paso Robles City, Atascadero Fire, San Luis Obispo County Environmental Health, and the California Men's Colony. (Cal Fire 2014). The hazmat team is an Incident Command System (ICS) Type 2 team. While the Hazmat team has not been certified by the California Office of Emergency Services as an ICS Type 2, the team meets all of the certification requirements (Laurie Donnelly 2014). Given the unique hazards found at the SMR, these two teams would be involved in most responses to the Project Site.

The Department operates under a regional approach to providing fire protection and emergency medical services, and emergency response units are dispatched as needed to an incident anywhere in the district's service territory based on distance and availability, without regard to jurisdictional or municipal boundaries.

Figure 4.11-2 Location of San Luis Obispo County Fire Stations



Source: Cal Fire 2013.

Mutual Aid Agreements

In California, virtually all fire departments are signatories to the California Master Mutual Aid Agreement. This agreement secures assistance across jurisdictional boundaries, when requested, in response to a disaster or an emergency that exceeds local resources. Cal Fire is a member to this agreement and acts as the County Coordination Dispatch Center, which, in the event of an emergency, requests assistance from mutual aid companies.

As part of this agreement, the counties of Santa Barbara and Ventura are responsible for providing the initial response to fires that request mutual aide (in addition to SLO County) in the State Responsibility Areas within San Luis Obispo County. Cal Fire response teams will assist should the initial attack prove unsuccessful.

In addition to the statewide agreement, cooperative agreements between Cal Fire, San Luis Obispo County, Los Osos and Avila Community Service Districts, and the City of Pismo Beach provide for a regionalized approach ensuring cost effective professional fire protection (Cal Fire 2013).

Phillips 66 Santa Maria Refinery Fire Brigade

Given the complexity of the SMR and the unique hazards, the refinery maintains a fire brigade and a designated Fire Department Liaison. The fire brigade is staffed 24-hours per day, 365-days per year with a minimum of eight people. All members of the fire brigade undergo yearly training and conduct regular response drills. Some of these response drills are conducted with Cal Fire staff (Anderson 2013).

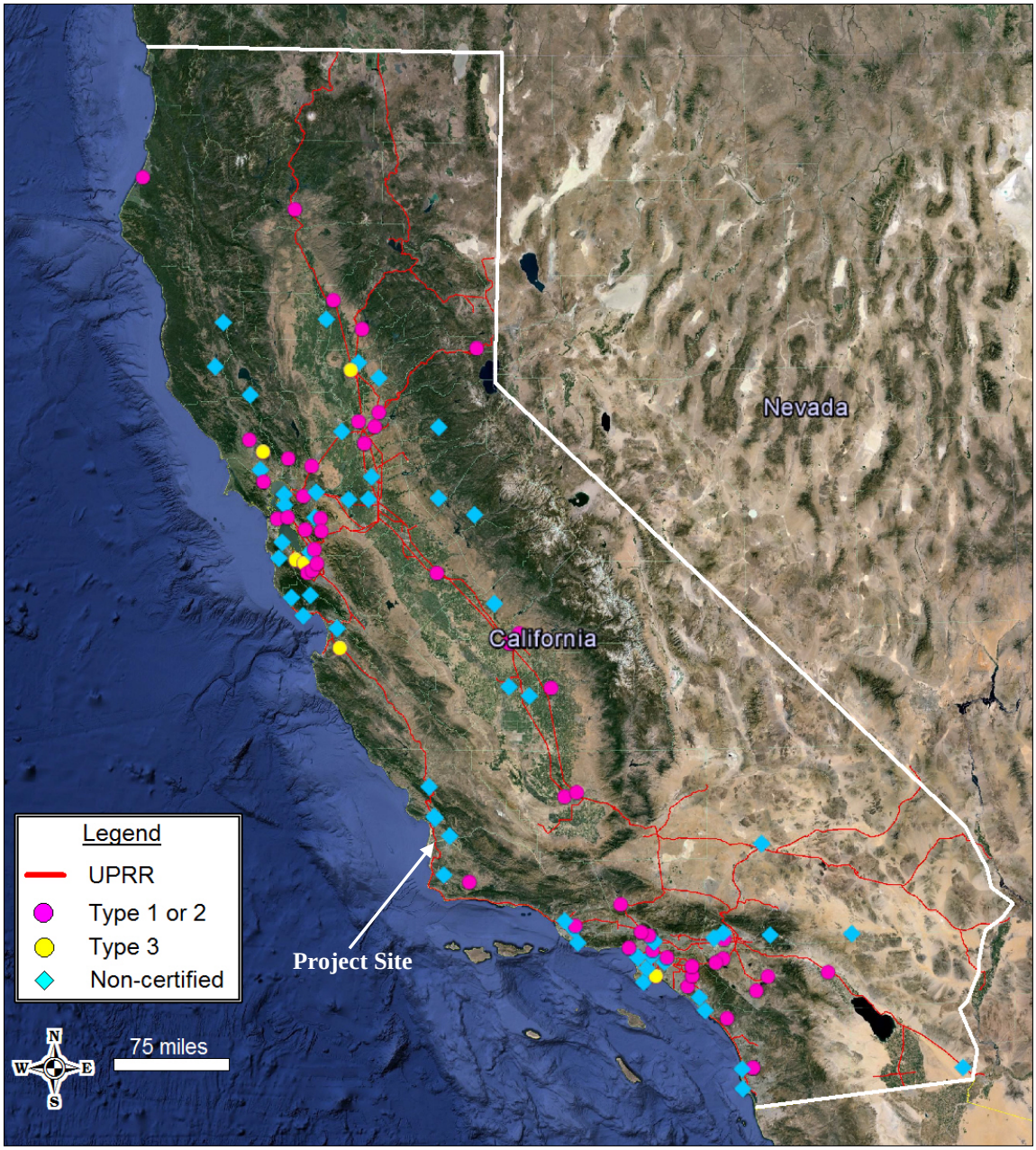
Phillips 66 fire and safety staff provides emergency coordination of teams to perform required rescue operations for confined space entries, trenching operations and monitoring of hazardous materials handling during routine maintenance and construction. The fire brigade serves as the initial responder to an incident until Cal Fire arrives at the SMR. Once Cal Fire arrives at the SMR a joint command is established to deal with the incident.

Emergency Response Agencies Along Mainline Rail Routes

Various state agencies engage in prevention, planning, emergency response, and cleanup activities applicable to oil by rail, including the Office of Emergency Services (OES), the Office of State Fire Marshal (OSFM), California Environmental Protection Agency (CalEPA), and the Office of Spill Prevention and Response (OSPR). These state agencies are all beginning to prepare for the heightened risks posed by oil by rail. Local agencies, including the local Certified Unified Program Agencies (CUPAs), also play critical roles in emergency preparedness and response. There are local Fire and Emergency Response Departments within counties and cities along the various rail routes. Figure 4.11-3 shows the location of the various types of hazardous material response teams along the mainline rail routes in California.

Hazardous material response teams are classified based upon their operational capability. There are three levels (types) of hazardous material operational capability (see Table 4.11.4). These levels are based upon an increasing capability of intervention with an identified minimum amount of training and equipment. Type 1 teams have the highest level of training and equipment, with Type 3 being the lowest. Non-certified teams are ones that have not been certified by OES. However, this does not mean they do not meet one of the type requirements.

Figure 4.11-3 Location of Hazards Material Response Teams Along the Mainline Rail Routes in California



Source: Data from State of California (2014)

Table 4.11.4 Hazardous Material Team Type Minimum Standards

	Type 1	Type 2	Type 3
Type of Incident	• Known Industrial Chemicals • Unknown Industrial Chemicals • WMD / CBRN Substances	• Known Industrial Chemicals • Unknown Industrial Chemicals	• Known Industrial Chemical
Air Monitoring	• Combustible Gas • Carbon Monoxide • Hydrogen Sulfide • Specialty Gases • WMD/CBRN	• Combustible Gas • Carbon Monoxide • Hydrogen Sulfide • Specialty Gases	• Combustible Gas • Carbon Monoxide • Hydrogen Sulfide
Chemical Protective Ensembles	• Liquid-Splash Protective • Vapor Protective • WMD/CBRN Protective	• Liquid-Splash Protective • Vapor Protective • Hi-Temp. Protective Gloves	• Liquid-Splash Protective
Ancillary Protective Clothing	• Hi-Temperature Gloves • Cryogenic Protective Gloves • WMD/CBRN Protective Gloves • Radiological Protective Gloves	• Hi-Temperature Gloves • Cryogenic Protective Gloves	
Radiation Monitoring	• Gamma • Beta • Alpha • Radionuclide	• Gamma • Beta	• Gamma • Beta
Technical References	• Printed & Electronic • Plume Air Modeling, Overlays • WMD/CBRN Sources	• Printed & Electronic • Plume Air Modeling, Overlays	• Printed & Electronic
Intervention Capability	• Dyking, Absorption • Liquid & Solid Plugging, Patch • Vapor Leak Plugging, Patch • Neutralization • WMD/CBRN Containment	• Dyking, Absorption • Liquid & Solid Plugging, Patch • Vapor Leak Plugging, Patch • Neutralization	• Dyking, Absorption • Liquid & Solid Plugging, Patch
Decontamination	• Known Industrial Chemicals • Unknown Industrial Chemicals • WMD / CBRN Substances	• Known Industrial Chemicals • Unknown Industrial Chemicals	• Known Industrial Chemicals
Training	• Hazardous Materials Specialist (240 hour) • Terrorist Technician/Specialist • (16 hour)	• Hazardous Materials Specialist • (240 hour)	• Hazardous Materials Technician (160 hour)

Source: OES Hazmat Company Resource Types-Quick Reference

4.11.1.4 Police Services

This subsection discusses the police protection providers serving the Project Site, potential and expected response times from the police stations, and the police department resources. The Project Site is under the jurisdiction of the San Luis Obispo County Sheriff's Department. The California Highway Patrol (CHP) provides additional law enforcement support for the Project area.

All law enforcement jurisdictions (state, County, and City) operate under the California Emergency Management Agency's Law Enforcement Mutual Aid Plan (2009 Edition), which allows one law enforcement agency to request assistance from other law enforcement agencies, if necessary.

San Luis Obispo County Sheriff's Department

The San Luis Obispo County Sheriff's Department provides police protection and law enforcement services within the unincorporated portions of the County, including the Project Site. The Department's Headquarters Station is located at 1585 Kansas Avenue in the City of San Luis Obispo. The Headquarters Station provides dispatch, watch commander (shift oversight), administration, detectives, records and warrants, as well as property and custody services for the department.

The Department's South Station, located at 1681 Front Street in Oceano, would serve the Project Site. Currently, this station serves a population of about 36,000 people living in the communities of Oceano, Nipomo, unincorporated Arroyo Grande, Los Berros, New Cuyama, Huasna Valley, Blacklake-Callendar, and the Woodlands. The area served extends from Pismo Beach to the Santa Barbara County line and from the Pacific Ocean to the Kern County line. The station has one commander, two sergeants, four senior deputies, and 23 sheriff deputies to serve approximately 850 square miles (SLO Sheriff 2013).

The department's Coast Station participates in mutual aid agreements with the City of San Luis Obispo Police Department, CHP, and other law enforcement agencies, so the department can call these stations for assistance, if necessary.

Volunteers donate their time, equipment, and expertise to the San Luis Obispo County Sheriff's Department. The Sheriff's Auxiliary Volunteer Patrol was established to help the San Luis Obispo County Sheriff's Department satisfy its law enforcement mission. Citizen volunteers are trained in a variety of law enforcement topics, such as observation skills, radio procedures, first aid, and supplemental patrol in neighborhoods and business districts. The Sheriff Department's Search and Rescue Team, Aero Squadron, Posse, and Dive Team also enlist the aid of volunteers.

The California Highway Patrol (CHP) is primarily responsible for traffic-related calls and issues along Coast Route 1 in the unincorporated areas of the County. The types of issues resulting from the Rail Spur Project would most likely not impact the San Luis Obispo County Sheriff's Department as much as CHP, however, any project such as this does have the potential to affect law enforcement resources due to increased calls for service for other types of incidents (i.e., vandalism, burglary, trespassing issues, etc.) (Mann 2013).

California Highway Patrol

The California Highway Patrol (CHP) provides traffic law enforcement in the unincorporated areas of the County and on all freeways within the County. The CHP also provides general law enforcement services and security on all state property and facilities. San Luis Obispo County is served by the CHP Coastal Division, which included the coastal counties from Ventura to Monterey. The Project Site is served by the CHP's San Luis Obispo Station, which serves approximately 900 square miles and is located at 675 California Boulevard in the City of San Luis Obispo. Currently, 39 sworn officers staff the San Luis Obispo Station. The CHP operates three shifts in a 24-hour period: 5:30 a.m. to 6:00 p.m., 10:30 a.m. to 11 p.m., and 5:30 p.m. to 6:00 a.m. Average deployment for each shift is six, two, and four officers, respectively (Day 2011).

The CHP has a Memorandum of Understanding (MOU) with the County Sheriff's Department, which is an agreement between public agencies to share resources and information among themselves in response to a large-scale emergency.

Police Services Along Mainline Rail Routes

The police services along the mainline rail routes include County Sheriff Departments, City Police Departments, and CHP. The jurisdictions along the route would vary based upon the location of the mainline tracks.

4.11.2 Regulatory Setting

4.11.2.1 Federal

Federal law governs most major aspects of rail transport, and preempts most state regulation. The principal agency responsible for promulgating and enforcing the safety of rail shipments of crude oil is Department of Transportation (DOT), and specifically within DOT the Federal Railroad Administration (FRA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA has issued an advanced notice of proposed rulemaking that would expand the applicability of comprehensive oil spill response plans (OSRPs) to high-hazard flammable trains (HHFTs), which would include train transporting 20 or more carloads in a single train of a Class 3 flammable liquid, which would include crude oil.

4.11.2.2 State

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. CPUC is responsible for ensuring that California utility customers have safe, reliable utility service at reasonable rates; protecting utility customers from fraud; and promoting the health of California's economy. CPUC establishes service standards and safety rules and authorizes utility rate changes, as well as enforcing CEQA compliance for utility construction (CPUC 2010).

CalRecycle

In January 2010, the CalRecycle was established in an effort to streamline state recycling and waste diversion efforts. These responsibilities were formerly administered by the California Integrated Waste Management Board. CalRecycle is now comprised of the Waste Management Division and the Recycling Division, which manage programs created through the Integrated Waste Management Act (AB 939).

AB 939 required that each County prepare a new Integrated Waste Management Plan and required each city to prepare a Source Reduction and Recycling Element by July 1, 1991. Each source reduction element was to include a plan for achieving a solid waste goal of 25 percent reductions by January 1, 1995, and 50 percent reductions by January 1, 2000.

Senate Bill (SB) 2202 made a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local government should continue to divert 50 percent of all solid waste after January 1, 2000.

Moreover, in 1997, some of the regulations adopted by the State Water Quality Control Board pertaining to landfills (Title 23, Chapter 15) were incorporated with CalRecycle regulations (Title 14) to create Title 27 of the California Code of Regulations.

Fire Protection

California Code Title 8, Division 1 (Department of Industrial Relations) Chapter 4 (Division of Industrial Safety), Subchapter 14 (Petroleum Safety Orders--Drilling and Production), addresses several issues related to confined space and testing of vapor. Article 6, section 6529 addresses issues related to fire and explosions, such as:

- Firefighting equipment should be inspected, tested, and maintained in serviceable condition. A record should be kept recording when fire extinguishers were last inspected, tested, and recharged.
- A plan shall be established and implemented to ensure the safe and orderly evacuation of employees.

Emergency Response

The State of California Emergency Plan (SEP) addresses the state's response to extraordinary emergency situations associated with natural disasters or human-caused emergencies. In accordance with the California Emergency Services Act (ESA), this plan describes the methods for carrying out emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, how resources are mobilized, how the public will be informed and the process to ensure continuity of government during an emergency or disaster. The SEP has a Hazardous Material and Oil Spill annex that defines the organization, scope, and coordination of oil and hazardous materials response and emergency management activities in a disaster or large scale incident. The California Hazardous Materials and Oil Emergency Function provides for a coordinated response from agencies and governmental entities with jurisdictional and regulatory authority to conduct all phases of emergency management in the response to and recovery from a release of oil or hazardous materials. CalEPA Emergency Response

Management Committee is currently revising the Hazardous Material and Oil Spill annex of the SEP.

The State has Hazardous Materials Emergency Response Plans for each of the six planning districts established by the California Emergency Response Commission. These Hazardous Materials Emergency Response Plans build on the local agencies Hazardous Materials Area Plans and facility Hazardous Materials Business Plans located in planning areas. The plans include the identity, location and emergency contacts for facilities that handle threshold quantities of extremely hazardous substances. The plans also contain chemical release response procedures, public protective action notification information, county government emergency coordinators and plans for exercising the Hazardous Materials Emergency Plan.

Various state agencies engage in prevention, planning, emergency response, and cleanup activities applicable to oil by rail, including the Office of Emergency Services (OES), the Office of State Fire Marshal (OSFM), California Environmental Protection Agency (CalEPA), and the Office of Spill Prevention and Response (OSPR). These state agencies are all beginning to prepare for the heightened risks posed by oil by rail. Local agencies, including the local Certified Unified Program Agencies (CUPAs), also play critical roles in emergency preparedness and response, and have expressed growing concern about increased oil by rail transport.

Several aspects of the state's emergency response framework are currently being updated: The CalEPA Emergency Response Management Committee is revising the Hazardous Material and Oil Spill annex of the State Emergency Plan, OES is leading an effort to review and update the six Regional Plans for Hazardous Materials Emergency Response, and OES has also re-started meetings of the State Emergency Response Commission (SERC), the federally-mandated state coordinating body for hazardous materials release response planning (State of California 2014).

OES has also formed a task force made up of local and state emergency responders to specifically address emergency response to crude oil trains in California.

Senate Bill (SB) 861 Oil Spill Prevention and Response

In 2014, Governor Brown expanded California's oil spill prevention and response program to cover all statewide surface waters at risk of oil spills. This expansion provided funding for industry preparedness, spill response, and continued coordination with local, state and federal government along with industry and non-governmental organizations. Senate Bill 861 authorized the Office of Spill Prevention and Response (OSPR) with the statewide expansion and regulatory oversight. The key objectives are:

- Target critical locations to stage spill responders and equipment for the best response to rail and pipeline incidents;
- Develop effective regulations in close collaboration with local government, non-governmental organizations, and industry;
- Implement regulations that will guide industry, local and state government, and the public and build relationships with local governments through workshops and presentations;
- Create inland response plans that have the depth and breadth of the marine Area Contingency Plans; and,

- Work with communities to build a strong response spill team.

The changes would apply to railroads, pipelines, and oil well/production facilities. These facilities will be required to have oil spill contingency plans. The legislation also requires announced and unannounced drills to test response and cleanup operations, equipment, contingency plans, and procedures. All elements of the plan must be excised at least one very three years. Operators of covered facilities must be able to demonstrate financial resources to pay for spill response and damages based upon a reasonable worst case spill volume.

The regulation requires a six and one-half cent per barrel tax on crude oil and petroleum products received at refineries or marine terminals within California to cover the cost of the expanded oil spill response program. On Tuesday, October 7, 2014, a group of railroad companies, led by Union Pacific Railroad Company, filed a complaint in the United States District Court, Eastern District of California, alleging that SB 861 is preempted by federal law.

4.11.2.3 San Luis Obispo County

Public Facilities Fees Ordinance, Title 18 of the San Luis Obispo County Code
The County of San Luis Obispo Public Facilities Fees Ordinance, Title 18 of the County Code, allows the County to collect fees for new development projects within the County to mitigate impacts caused by such projects. The County uses the fees to finance the new development's fair share of public facilities (e.g., parks, libraries, and fire and police stations).

County of San Luis Obispo Public Facilities Financing Plan for Unincorporated Area Facilities
The County of San Luis Obispo Public Facilities Financing Plan for Unincorporated Area Facilities documents the number and cost of new capital facilities required to serve development in unincorporated areas through 2025. One potential source of funding is public facilities fees paid by new developments to fund their fair share of necessary facilities. The Public Facilities Financing Plan identifies the maximum justified level of those fees. The fees finance public capital facilities (including land purchases, construction of buildings, and the purchase of major equipment) and ensure that new development projects contribute their fair share for these facilities. The fees cannot fund employee salaries.

County Fire Standards
San Luis Obispo County, and other jurisdictions in the county, adopted both the California Fire Code and the California Building Code, with amendments, into local ordinance. These local ordinances include but are not necessarily limited to:

- Water requirements;
- Minimum access road requirements;
- Construction requirements;
- Hazard abatement; and
- Turnaround requirements.

San Luis Obispo County General Plan

The San Luis Obispo County General Plan contains two elements that outline the county's goals and policies with respect to public services.

Safety Element

The Safety Element of the General Plan contains the following goals and policies relevant to public services in relation to the Rail Spur Project:

- Goal S-1: Attain a high level of emergency preparedness.
  - Policy S-1 Response: Support the response programs that provide emergency and other services to the public when a disaster occurs. The focus of response activities is saving live and preventing injury, and reducing immediate property damage.
  - Policy S-2 Emergency Preparedness: Continue to improve preparedness programs that educate and organize people to respond appropriately to disasters. They include education and awareness programs for individuals, families, institutions, businesses, government agencies and other organizations.
  - Policy S-3 Coordination: Improve coordination among City, County and State programs, and among others working to reduce the risks of disasters. This should also include improved coordination with the news media. This will result in more effective preparedness, response and recovery from disasters.
  - Policy S-4 Information Systems and Research: Expand and keep current the database of safety related information. Knowledge about disasters and the area we live in is growing. New information must be made available to the public and decision makers. Regularly update the GIS data as new information becomes available.
  - Policy S-5 Risk Assessment: Continue investigations that reduce or eliminate long term risks. Risk assessment activities, effectively carried out, can improve the efficiency and reduce the cost of response and recovery from disasters.
- Goal S-4: Reduce the threat to life, structures and the environment caused by fire.
  - Policy S-14 Facilities, Equipment and Personnel: Ensure that adequate facilities, equipment and personnel are available to meet the demands of fire fighting in San Luis Obispo County based on the level of service set forth in the fie agency's master plan.
  - Policy S-15 Readiness and Response: The CDF/County Fire Department will maintain and improve its ability to respond and suppress fires throughout the County.
  - Policy S-16 Loss Prevention: Improve structures and other values at risk to reduce the impact of fire. Regulations should be developed to improve the defensible area surrounding habitation.
- Goal S-6: Reduce the potential for harm to individuals and damage to the environment from aircraft hazards, radiation hazards, hazardous materials, electromagnetic fields, radon, and hazardous trees.
  - Policy S-26 Hazardous Materials: Reduce the potential for exposure to humans and the environment by hazardous substances.

Energy Element
The Energy chapter of the General Plan's Conservation and Open Space Element contains the following goals and policies relevant to public services in relation to the Rail Spur Project:

- Goal E 5: Recycling, waste diversion, and reuse programs will achieve as close to zero waste as possible.
  - Policy E 5.1 Source reduction and waste diversion: Encourage source reduction and diversion of solid waste generated to as near zero waste as possible, in order to reduce energy consumption.

San Luis Obispo County Municipal Code
Title 8, Chapter 8.12, Solid Waste Management, regulates wastes handled within the county. This document complies with the California Integrated Waste Management Act of 1989. Title 8, Chapter 8.66, Discharge of Contaminants into Ocean Waters of the County, and Chapter 8.68, Stormwater Pollution Prevention and Discharge Control, regulate methods to protect the environment from discharge-related contamination.

San Luis Obispo County Integrated Waste Management Authority
Ordinance No. 2008-3 establishes requirements for recycling materials generated from residential facilities, commercial facilities, and special events. These requirements should increase diversion of recyclable materials from landfill disposal, reduce greenhouse gas emissions by recycling more materials, and avoid the potential financial and other consequences of failing to meet and maintain AB 939 requirements (SLOC 2008).

4.11.2.4 Other Codes and Standards

Several codes and standards apply to fire protection and emergency response for facilities such as the one in which the Rail Spur Project is located.

National Fire Protection Association
The NFPA, established in 1896, publishes numerous codes and standards that cover issues ranging from foam systems to dry cleaning facilities. Several NFPA codes and standards apply to the Proposed Project.

NFPA Standard 11 addresses foam application to protect outdoor atmospheric storage tanks containing flammable and combustible liquids. Fire-fighting foam is an aggregate of air-filled bubbles formed from aqueous solutions and is lower in density than flammable liquids. It is used principally to form a cohesive floating blanket on flammable and combustible liquids and prevents or extinguishes fire by excluding air and cooling the fuel. It also prevents re-ignition by suppressing formation of flammable vapors. Foam is prepared by utilizing a water supply along with a foam concentrate.

Foam for tank fires can be applied through fixed foam discharge outlets permanently fixed to the tank top, by portable hose streams using foam nozzles, or by large-capacity monitor nozzles close to the tank. Foam can be applied to a liquid spill into a dike to suffocate a fire or prevent

ignition of the flammable material spill, utilizing fixed systems, portable systems, or monitors. Foam systems should be inspected annually, including foam performance tests.

For fires on the roof of the tank, NFPA 11 requires a foam supply with a minimum discharge rate of 0.16 gallons per minute per square feet (gpm/ft^2) (for hand-held and foam monitors) and a minimum discharge time of 65 minutes for crude petroleum (section 5). The minimum foam application rate and discharge time for discharge outlets fixed to the tank are 0.10 gpm/ft^2 and 30 minutes, respectively. For diked areas, foam rates shall be 0.16 gpm/ft^2 for 30 minutes.

NFPA 11 also requires that fixed foam systems have automatic fire detection (thermal and hydrocarbon detection) and alarms.

NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection, addresses water spray systems and issues such as installation requirements; design requirements, including hydraulic calculations; water supplies; and maintenance.

NFPA 22 addresses the installation of private firewater tanks to supply firewater to a facility.

NFPA 24 and 25 address the installation of private fire service equipment, including service mains and fire hydrants, as well as inspection, testing, and maintenance.

NFPA 30 addresses issues related to flammable and combustible liquids. NFPA 30 addresses fire prevention and risk control, electrical systems, storage in containers, processing facility issues, aboveground storage tanks requirements, and piping systems. NFPA 30 also addresses separation distances from vessels and tanks to property lines and to buildings and structures.

Uniform Fire Code

The UFC addresses issues ranging from egress and emergency escapes to fumigation, hot work, and cryogenic fluids.

Article 9 addresses site access and water supply for buildings, including access road minimum width requirements of 20 feet and all-weather driving capabilities.

Article 79 addresses flammable and combustible liquids issues, including:

- Overfill prevention;
- Automatic shut-off;
- Tank venting;
- Required use of foam systems on crude tanks with on-site storage of foam; and
- Diked areas equal to or greater than the largest tank.

4.11.3 Significance Criteria

The following criteria are based on Appendix G of the California Environmental Quality Act Guidelines. The effects of the Rail Spur Project on solid waste, energy, fire protection, and police services would be considered significant if the Rail Spur Project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and police protection;
- Be served by a landfill with insufficient permitted capacity to accommodate the Proposed Project's solid waste disposal needs;
- Use a substantial amount of fuel or energy that would consume energy beyond PG&E capacity to supply or produce;
- The Project Site does not contain adequate fire water or fire foam supplies to meet the recommended NFPA Standards, or the Cal Fire requirements;
- The Project equipment layout and access structure do not meet the API, NFPA, UFC, or Cal Fire recommendations for equipment spacing and clearances;
- The Project facilities do not have sufficient capabilities in early fire detection according to the NFPA requirements;
- The Project Site is more than 10 miles (15-minute response time) from an emergency response location with fire-fighting capabilities (i.e., a fire station or facility with fire-fighting and emergency response capabilities) or accessibility to the site is difficult or limited causing issues in terms of access, evacuations, and response; or
- The Project Site does not have an emergency response plan.

4.11.4 Project Impacts and Mitigation Measures

This section discussed the impacts and any mitigation measures associated with the Rail Spur Project related to solid waste (non-hazardous), electrical utilities, fire protection, and police services.

Water supply for the Rail Spur Project would be provided by groundwater wells that are not part of a public service or utility. Impacts associated with water supply are addressed in Section 4.13 (Water Resources). In addition, potential impacts to Amtrak service, a public transit service provider, are addressed in Section 4.12, Transportation and Circulation.

Impact #	Impact Description	Phase	Impact Classification
PS.1	The Rail Spur Project would generate solid waste requiring disposal at landfills.	Construction and Operations	Class III

Waste from the construction activities would include waste generated by the workers as well as general construction waste. CalRecycle has estimated that about three tons per employee per year is disposed of in landfills from construction activities (CalRecycle 1999). It is estimated that

there would be about 15 employee-years for the construction activities. Using these numbers it is estimated that approximately 45 tons of construction waste would be disposed of in landfills during the construction activities.

The operational solid waste would be generated by the workers at the facility. For industrial facilities an estimated waste disposal rate for the state of California was 10.8 pounds per employee per day (CalRecycle 2013d). It has been estimated that on average the facility would generate about 0.4 tons of solid waste per week from general operations. This trash and rubbish would be collected in waste bins and disposed of by a local waste hauler.

The local landfills have more than sufficient capacity to meet the increased need resulting from the project. Based on the available capacity of the landfill, potential impacts due to solid waste generation would be considered less than significant.

Mitigation Measures

No mitigation measures are required since the impact would be less than significant. However, a mitigation measure is recommended that addresses recycling to further reduce potential solid waste impacts.

PS-1 *Prior to issuance of grading permits, the Applicant shall submit a Solid Waste Management Plan (SWMP) for approval by San Luis Obispo County to maintain a diversion rate of at least 50 percent of construction waste from reaching the landfill. The SWMP shall consist of information regarding, but not limited to:*

a. The name and contact information of who will be responsible for implementing the recycling plan;

b. A brief description of the Project wastes to be generated, including types and estimated quantities of each material to be salvaged, reused, or recycled during the construction phase of this Project;

c. Waste sorting/recycling and/or collection areas shall be clearly indicated on the Site Map;

d. A description of the means of transportation and destination of recyclable materials and waste, and a description of where recyclable materials and waste will be sorted (whether materials will be site-separated and hauled to designated recycling or landfill facilities, or whether mixed materials will be removed from the site to be processed at a mixed waste sorting facility);

e. The name of the landfill(s) where trash will be disposed of and a projected amount of material that will be landfilled;

f. A description of meetings to be held between Applicant and contractor to ensure compliance with the recycling plan;

g. A contingency plan shall identify an alternate location to recycle and/or stockpile construction debris in the event of local recycling facilities becoming unable to accept material (for example: all local recycling facilities reaching the maximum tons per day due to a time period of unusually large volume);

h. *Disposal information including quantity of material landfilled, which landfill was used, total landfill tipping fees paid, and copies of weight tickets, manifests, receipts, and invoices;*

i. *Recycling information including quantity of material recycled, receiving party, and copies of weight tickets, manifests, receipts, and invoices; and*

j. *Reuse and salvage information including quantities of salvage materials, storage locations if they are to be used on-site, or receiving party if resold/used off-site.*

Residual Impacts

The majority of the construction waste would be wood, metal, and concrete, which could be recycled. Of the three tons per employee estimated by CalRecycle, over 65 percent of the disposed material was paper, wood, and metal, which could have been recycled (CalRecycle 2009). By developing and implementing a SWMP for construction the amount of material disposed in local landfills would be reduced. The residual impacts associated with solid waste generation would be considered *less than significant (Class III)*.

Impact #	Impact Description	Project Phase	Impact Classification
PS.2	The Rail Spur Project would potentially impact electricity supplies.	Operations	Class III

The Rail Spur Project would use a peak of about 1,000 kW, with the average consumption being about 900 kW. Assuming 250 trains per year and eight hours per train unloading, the amount of electrical use by the Rail Spur Project would be about 1,600 MW-hrs for the unloading operations.

Electrical requirements at the SMR are met by an onsite cogeneration unit that produced both steam and electricity, and via purchases from Pacific Gas and Electric Company (PG&E). In 2009, the SMR generated 20,732 MW-hrs of electricity onsite and purchased 23,273 MW-hrs of electricity from Pacific Gas and Electric Company. This amount of energy was generated with a crude oil throughput of 35,838 bpd. In 2007 and 2008 electricity purchased from PG&E decreased (19,293 and 22,736 MW-hrs, respectively) due to the increased fuel gas production at the refinery, which was used to produce steam and electricity.

The Applicant indicates that the amount of electricity purchased would continue to decrease with increased crude oil throughputs. However, although this trend would most likely continue, it would also be a function of the crude types and the amount of decreased electricity purchased by the SMR cannot be definitively estimated. Therefore, with the Rail Spur Project, electricity purchased from PG&E would most likely remain the same as historical levels since the SMR would be able to generate more onsite electricity due to increased fuel gas production. Therefore, the impacts to electrical utilities form the Rail Spur Project would be less than significant.

Mitigation Measures

No mitigation measures are necessary since the impacts on electrical utilities would be less than significant.

Residual Impacts

The impacts of the Rail Spur Project on electrical utilities would be *less than significant (Class III).*

Impact #	Impact Description	Phase	Impact Classification
PS.3	The Rail Spur Project would increase demand for fire protection and emergency response services at the SMR.	Operations	Class II

The Rail Spur Project would increase demand for fire protection and emergency response services due to increased transportation and handling of crude oil at the SMR. While unlikely events, rail accidents, crude oil spills, fires during the unloading operations are the refinery could occur. These hazards are discussed further in the Hazards and Hazardous Materials Section of the EIR (Section 4.7). Depending upon the extent of the event, Cal Fire and other local fire jurisdictions would need to respond.

A new fire protection system would be installed for the unloading rack, consisting of fire detection equipment, safety showers, eyewash stations, hydrants, controls and piping. The unloading rack would be equipped with a foam sprinkler deluge system and firewater monitors with foam generators at the unloading rack periphery. The foam spray system would require a foam concentrate storage tank. The fire protection system would be capable of providing 4,155 gallons per minute of fire water. The project would also include a secondary Emergency Vehicle Access route from the eastern end of the rail spur to Highway 1. A copy of a Preliminary Fire Protection Plan, prepared by the Applicant, is provided in Appendix E.

The fire protection system would have to meet all of the applicable provisions in the current California Fire Code (CFC), the current California Building Code (CBC), the Public Resources Code (PRC), California Code of Regulations (CCR), Code of Federal Regulations (CFR), current edition of applicable NFPA requirements, and Title 16 of the San Luis Obispo County Code.

Given the complexity of the SMR and the unique hazards, the refinery maintains a fire brigade and a designated Fire Department Liaison. The fire brigade is staffed 24-hours per day, 365-days per year with a minimum of eight people. All members of the fire brigade undergo yearly training and conduct regular response drills. Some of these response drills are conducted with Cal Fire staff.

In the event of an oil spill or fire at the unloading facility, the SMR fire brigade would initially respond until Cal Fire arrived at the site. Fire Station #22 (Mesa Fire Station) at 2391 Willow Road in Arroyo Grande, less than 0.5 miles away from the SMR, is the jurisdictional station (“first in”) for the SMR, and has a five minute response time.

The SMR is a high hazard facility due to the volume of operational and facility risks. The technical personnel and equipment requirements to mitigate incidents, and the response time for specialized teams to arrive and implement mitigation plans, increases the potential negative impact of an incident to the community, local businesses and the environment. The addition of a rail unloading facility at the SMR would serve to increase the facility hazards and risks.

A single significant event at the rail unloading facility could overwhelm the first responder resources and additional emergency responders and equipment could be required. Without proper fire protection design, training, and resources the impacts of a release of crude oil or fire could have significant impacts on fire protection and emergency response services.

Mitigation Measures

PS-3a *Prior to issuance of construction permits, the Applicant shall submit to Cal Fire/County Fire for review and approval a final Fire Protection Plan for the Rail Spur Project that meets all the applicable requirements of API, NFPA, UFC, and Cal Fire/County Fire.*

PS-3b *Prior to notice to proceed for the rail unloading facility, the Applicant shall update the SMR Emergency Response Plan to include the rail unloading facilities and operations.*

PS-3c *Prior to notice to proceed for the rail unloading facility, the Applicant shall update the existing SMR Spill Prevention Control and Countermeasure Plan to include the rail unloading facilities and operations.*

PS-3d *Prior to notice to proceed for the rail unloading facilities, the Applicant shall assure that the existing SMR fire brigade meets all the requirements outlined in Occupational Safety and Health Administration 29 CFR 1910.156, and NFPA 600 & 1081.*

PS-3e *Prior to issuance of grading permits, the Applicant shall have an executed operational Memorandum of Understanding (MOU) (now called the Operating Plan) with Cal Fire/County Fire that includes fire brigade staffing/training requirements and Cal Fire/County Fire funding requirements. This MOU shall be reviewed and updated annually by Cal Fire and the Applicant.*

PS-3f *Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for time spent by a qualified fire inspector to conduct the annual fire inspections at the SMR including all structures, and support facilities consistent with Cal Fire/County Fire's authority and jurisdiction. The Applicant shall reimburse all costs associated with travel time, inspections, inspection training, and documentation completion. The reimbursement rate shall be according to the most recent fee schedule adopted by the San Luis County Board of Supervisors.*

PS-3g *Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for offsite training for emergency responders to railcar emergencies, such as the 40 hour course offered by Security and Emergency Response Training Center Railroad Incident Coordination and Safety (RICS) meeting*

Department of Homeland security, NIIMS, OSHA 29CFR 1910.120 compliance. Initial training shall be two members of the Interagency Hazardous materials Response Team, two members of the interagency Urban Search and Rescue Team, and two members annually from Cal Fire/County Fire or fire districts in San Luis Obispo that have automatic aid agreements with Cal Fire/County Fire for a total of six slots per year for the life of the project.

PS-3h *Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for Fire Chief Officer attendance such as the 40 hour course offered by Security and Emergency Response Training Center; Leadership & Management of Surface Transportation Incidents. Funding shall be for two Fire Chief Officers annually for the life of the project.*

PS-3i *Prior to issuance of grading permits, the Applicant shall have an agreement with Cal Fire/County Fire to conduct annual emergency response scenario/field based training including Emergency Operations Center Training activations with the Applicant, Cal Fire/County Fire, UPRR, and other San Luis Obispo County First response agencies that have mutual aid agreements with Cal Fire/County Fire. These annual emergency response drills shall occur for the life of the project.*

Residual Impacts

Implementation of the above mitigation measures would assure that the emergency responders who might have to respond to an incident at the SMR would have adequate training and capabilities to address the hazards that could occur with operation of the rail unloading facilities. This would reduce the impacts to fire protection services to *less than significant with mitigation (Class II).*

Impact #	Impact Description	Phase	Impact Classification
PS.4	Operations of the crude oil train on the mainline UPRR tracks would increase demand for fire protection and emergency response services along the rail routes.	Operations	Class I

Trains could enter California at least five different locations (one at the north end of the state from Oregon, two at the northeast from Nevada, one at the southeast from Nevada, and one at the south from Arizona). Depending upon the route taken by the train they could arrive at the SMR from the north or the south. It is unknown what route UPRR would use to deliver the trains to the SMR. Coming from the north the routes merge at the UPRR Roseville Rail Yard. From the south the routes merge at the Colton Rail Yard. Given that the route the trains would travel to get to these two UPRR yards is speculative, the EIR has evaluated in more detail the impacts of trains traveling from these two UPRR yards to the SMR.

Beyond the two UPRR Yards, trains could travel any number of routes (refer to Figure 2-8). Also, crude oil delivered to California by UPRR would generally pass through either of these two rail yards in route to the SMR. Depending upon the source of the crude oil, crude oil trains

could use any portion of the UPRR network between Roseville/Colton and the source location for the crude oil. The exact route that would be taken would depend upon a number of factors, that could include the source of the crude oil, weather conditions, train traffic conditions, etc. Since the routes past Roseville and Colton are somewhat speculative, the EIR has discussed in a more qualitative nature the potential fire protection and emergency response impacts of train accidents beyond these two rail yards.

The CPUC has identified a number of local safety hazard sites (LSHS) within California along the mainline rail routes. These are discussed in more detail in the Hazards and Hazardous Materials Section (see Section 4.7). These sites were identified based upon past accident history and difficulty in traversing or the potential for greater consequences as a result of derailment (CPUC 2014).

For the three rail routes between Roseville/Colton and the SMR, only one LSHS would be used, which is Cuesta Grade in San Luis Obispo County. Over the past five years (2009-2013), California experienced a total of 58 derailments at or near Local Safety Hazard Sites (LSHS). None of these derailments have occurred on or near the Cuesta Grade (CPUC 2014).

In San Luis Obispo County, the Cuesta Grade represents an area where a runaway train could occur. A runaway train coming down the Cuesta Grade could result in spills of crude oil and associated fires. The Rail Spur Project would use two additional locomotives (for a total of five locomotives) on the crude oil unit train for crossing the Cuesta Grade. These two additional locomotives would be added to the train at Santa Margarita and removed from the train in the City of San Luis Obispo once the train had crossed the Cuesta Grade. These additional locomotives would help to assure that the train can safely traverse the Cuesta Grade.

The probability of a crude oil train release incident is discussed in the Hazardous and Hazardous Materials Section (Section 4.7). This probability represents the probability of a release incident for the length of the rail routes between the SMR and Roseville or Colton. As discussed in the Hazards and Hazardous Materials Section (Section 4.7), the worst case spill from a unit train on the mainline tracks was assumed to be 180,000 gallons (about six tanker cars). An accident along the UPRR mainline tracks could result in an oil spill or fire, which would place demand on fire and emergency responders. If a fire or explosion resulted from the train accident it could initiate a wildfire depending upon the location of the accident. The resultant wildfire could also place additional demands on fire and emergency response services. The Hazards and Hazardous Materials Section (Section 4.7) provides more information on the potential hazards of a mainline rail accident.

As shown in Figure 4.11-3 there are various tiers of hazmat teams located along the mainline routes. In the event of an incident on the mainline, State and local emergency responders (hazmat teams, fire fighters, and police) along with UPRR would be responsible for the response. State and local agencies have important, complementary responsibilities in this area. OES is responsible for coordinating emergency response statewide, while local agencies typically are the first on the scene responding following an incident. These agencies handle initial emergency response and immediate actions to abate the hazard. In the event of an oil spill with no resultant fire, OSPR would manage the incident, including cleanup, natural resource protection, hazardous

waste management, and cost recovery from responsible parties. Local and State fire and hazardous material responders would be the ones to handle a train accident with any fire or explosion. Once the fire and explosion hazards were abated, OSPR would manage cleanup, natural resource protection, hazardous waste management, and cost recovery from responsible parties.

Based upon a recent voluntary agreement between the American Association of Railroads (AAR) and DOT the railroads have agreed to the following actions which would serve to reduce the probability of a rail accident and help to improve emergency response.

Increased Track Inspections – Railroads perform at least one additional internal-rail inspection each year above those required by new FRA regulations on mainline routes over which trains moving 20 or more carloads of crude oil travel. In addition, for mainline routes carrying these trains, railroads will conduct high-tech track geometry inspections – inspections that are above and beyond those currently required by FRA.

Braking Systems – Railroads are equipping all trains with 20 or more carloads of crude oil with either distributed power or two-way telemetry end-of-train devices. These technologies allow train crews to apply emergency brakes from both ends of the train in order to stop the train faster.

Rail Traffic Routing Technology – Railroads have begun using the Rail Corridor Risk Management System (RCRMS) to aid in the determination of the safest and most secure rail routes for trains with 20 or more cars of crude oil.

Lower Speeds – Railroads carrying 20 or more tank cars of crude oil that include at least one older DOT-111 may go no faster than 40 miles-per-hour in 46 federally designated high-threat-urban areas, as established by DHS regulations. Railroads also committed to implementing a nationwide 50 mile-per-hour speed limit for these trains.

Community Relations – Railroads are working with communities through which crude oil trains move to address location-specific concerns those communities may have.

Increased Trackside Safety Technology – Railroads have begun installing additional wayside wheel bearing detectors along tracks with trains carrying 20 or more crude oil cars, as other safety factors allow. These further help prevent derailments.

Increased Emergency Response Training and Tuition Assistance – Railroads are providing $5 million to develop specialized crude by rail training and tuition assistance program for local first responders. The funding will provide program development as well as tuition assistance for an estimated 1,500 first responders in the first year.

Emergency Response Capability Planning – Railroads are developing an inventory of emergency response resources and equipment for responding to the release of large amounts of crude oil along routes over which trains with 20 or more cars of crude oil operate (AAR 2014).

UPRR has been reaching out to fire departments as well as other emergency responders along their mainline routes to offer comprehensive training to hazmat first-responders in communities where we operate. UPRR annually trains approximately 2,500 local, state and federal first-

responders on ways to minimize the impact of a derailment in their communities. UPRR has trained nearly 38,000 public responders and almost 7,500 private responders (shippers & contractors) since 2003. This includes classroom and hands-on training (UPRR 2014).

UPRR has been offering training to state first responders at the Pueblo, Colorado Security and Emergency Response Training Center (SERTC) for a 3-day training course called *"Crude By Rail Emergency Response."*

According to a recent analysis conducted by OES, numerous local emergency response offices lack adequate resources to respond to oil by rail accidents. Many of these first responders are in rural areas and have little or no funding for firefighters and rely on volunteer firefighters. Many departments lack the necessary capacity to support a hazmat team to purchase or maintain necessary specialized vehicles and equipment, or to obtain training in the specialized areas of oil rail safety and flammable liquid, and their response time to significant oil by rail accident could be hours. Moreover, these small departments cannot rely on the assistance of larger, certified departments because those departments could be engaged in an incident locally and would be unavailable (State of California 2014).

There are gaps in local emergency response training, equipment, and planning capabilities needed to adequately prepare for oil by rail incidents. Emergency responders lack adequate training in the specialized areas of oil rail safety and flammable liquid, lack critical information needed to help plan for and respond to oil by rail incidents, including what resources railroads can provide in the event of an accident, and how they would respond to potential worst case scenarios (State of California 2014).

Spill Impacts beyond Roseville and Colton Yards

Beyond the two UPRR Yards, trains could travel any number of routes (refer to Figure 2-8). Also, crude oil delivered to California by UPRR would generally pass through either of these two rail yards in route to the SMR. Depending upon the source of the crude oil, crude oil trains could use any portion of the UPRR network between Roseville/Colton and the source location for the crude oil. The exact route that would be taken would depend upon a number of factors, that could include the source of the crude oil, weather conditions, train traffic conditions, etc.

While the exact route the trains would take to get to these two rail yards is speculative, all of the routes within California would have to traverse a number of LSHS. LSHS account for a disproportionate share of derailments occurring in California. Most of these LSHS past Colton and Roseville are in remote areas of the State where there are limited emergency response capabilities Most of these LSHS are primarily located in the mountains, with at least one such site along every rail route into California. Some of the LSHS are also located in more urban areas, such as in the San Bernardino-Riverside area. A lot of the local fire departments in these mountain areas, who would likely be the first responders, are made up of voluntary firefighters.

Forty percent of the firefighters in California are volunteer firefighters, with many fire departments entirely staffed by volunteer firefighters. These departments lack the necessary capacity to support a hazmat team to purchase or maintain necessary specialized vehicles and equipment, or to obtain training in the specialized areas of oil rail safety and flammable liquid,

and their response time to a significant oil by rail accident could be hours (State of California 2014).

The OES analysis clearly indicates that fire and emergency responders lack resources, training and information in order to adequately respond to a crude oil train incident along the mainline tracks. Without proper training, information, and resources the impacts of a release of crude oil or fire along the mainline tracks could have significant impacts on fire protection and emergency response services.

Mitigation Measures

PS-4a *The Applicant shall provide advanced notice of all crude oil shipments to the Santa Maria Refinery, and quarterly hazardous commodity flow information documents to all first response agencies along the mainline rail routes within California that could be used by trains carrying crude oil to the Santa Maria Refinery for the life of the project. Only first response agencies that are able to receive security sensitive information as identified pursuant to Section 15.5 of Part 15 of Title 49 of the Code of Federal Regulations, shall be provided this information. The plan for providing notice to first response agencies shall be in place and verified by the County Department of Planning and Building prior to delivery of crude by rail to the Santa Maria Refinery.*

PS-4b *Only rail cars designed to FRA, July 23, 2014 Proposed Rulemaking Option 1: PHMSA and FRA Designed Tank Car shall be allowed to unload crude oil at the Santa Maria Refinery.*

PS-4c *The Applicant shall provide annual funding for first response agencies along the mainline rail routes within California that could be used by the trains carrying crude oil to the Santa Maria Refinery to attend certified offsite training for emergency responders to railcar emergencies, such as the 40 hour course offered by Security and Emergency Response Training Center Railroad Incident Coordination and Safety (RICS) meeting Department of Homeland security, NIIMS, OSHA 29CFR 1910.120 compliance. The Applicant shall fund a minimum of 20 annual slots per year for the life of the project. The plan for funding the emergency response training shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.*

PS-4d *As part of the Applicant's contract with UPRR, it shall require annual emergency responses scenario/field based training including Emergency Operations Center Training activations with local emergency response agencies along the mainline rail routes within California that could be used by the crude oil trains traveling to the Santa Maria Refinery for the life of the project. A total of four training sessions shall be conducted per year at various locations along the rail routes. This contract provision shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.*

PS-4e *As part of the Applicant's contract with UPRR, it shall require that all first response agencies along the mainline rail routes within California that could be used by trains*

carrying crude oil traveling to the Santa Maria Refinery be provided with a contact number that can provide real-time information in the event of an oil train derailment or accident. The information that would need to be provided would include, but not be limited to crude oil shipping papers that detail the type of crude oil, and information that can assist in the safe containment and removal of any crude oil spill. This contract provision shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.

Residual Impacts

Implementation of mitigation measures PS-4a through PS-4e would help to assure that the emergency responders who might have to respond to an incident along the mainline rail routes would have adequate training, information, and capabilities to address the hazards that could occur with operation of the crude oil train along the mainline route.

The County may be preempted by federal law from implementing these measures as they require particular contractual provisions that might be determined to improperly impact interstate commerce or conflict with the Interstate Commerce Commission Termination Act (ICCTA), which preempts state laws with respect to rail transportation.

OSPR is currently in the process of implementing the requirements of SB 861, which will require railroads to have detailed oil spill response plans and to conduct oil spill response drills. This legislation also would require UPRR to pay for and cleanup any spilled oil. The final rules to implement this legislation are expected to be issued in the fall of 2014. However, the timing of when the plans will have to be in place and the drill would start is not yet know. Implementation of this legislation would improve oil spill response for train derailments that lead to spills.

In addition, the DOT is evaluating proposed rules that would require rail operators of crude oil trains to have a comprehensive OSRP that addresses may of the same requirements as the plans required by SB 861. If the DOT adopts a final rule covering crude oil trains, it would improve oil spill response for train derailments that lead to spills.

The DOT has also proposed rules covering enhancements to tank car standards and operational controls for high-hazardous flammable trains, which would include crude oil trains. If this proposed rule is adopted, it would serve to reduce the likelihood of a train derailment and release of crude oil. Section 4.7, Hazards and Hazardous Materials, provides additional information on this proposed DOT rule.

If and when all these rules are adopted and in place, they would serve to reduce train derailments and improve emergency response in the event of an accident.

However, it is not certain that implementation of these various regulations would address all of the mitigation measures discussed above. Given that the County may be preempted from implementing mitigation measures PS-4a through PS-4e, oil spills impacts to fire protection and emergency response services along the UPRR mainline tracks would be s*ignificant and unavoidable (Class I).*

Impact #	Impact Description	Phase	Impact Classification
PS.5	The Rail Spur Project would increase demand for police services at the SMR.	Operations	Class III

The SMR maintains an onsite security service that is at the refinery 24-hours per day, 365 days per year. The operational areas of the refinery are fenced and entrances to these areas of the SMR are controlled by guards. The Rail Spur Project site would be fenced with night time perimeter lighting. The SMR would provide security for this area of the refinery as part of the existing security service. This onsite security service would limit the demands for police services.

In the event of an incident at the rail unloading services, police services would be needed to manage traffic on Highway 1, and to assist with any evacuations that may be needed in the developed areas that are in close proximity to the SMR. These would be similar services that would be required for the current refinery operations.

Given that the SMR maintains an onsite security service, which limits the need for police services, the Rail Spur Project would not be expected to affect the overall response time for police services at the SMR, or result in the need for the construction of new police services facilities to maintain adequate response times. Therefore, the impacts of the Rail Spur Project on police services would be less than significant.

Mitigation Measures

No mitigation measures are required since the impact would be less than significant. However, a mitigation measure is ***recommended*** that addresses security at the rail unloading facility to further reduce potential impacts to police services.

PS-5 *Prior to notice to proceed for the rail unloading facility, the Applicant shall update their existing Security Plan to include the Rail Spur Project.*

Residual Impacts

The impacts of the Rail Spur Project on police services would be *less than significant (Class III)*.

4.11.5 Cumulative Analysis

The cumulative projects discussed in Section 3.0, Cumulative Projects Description, include construction and use of additional housing units, retail establishments, and a number of oil and gas related projects. None of these projects would contribute to unacceptable strains on the region's solid waste disposal systems, the electricity supply, or police services. Therefore, cumulative impacts to these areas would be less than significant.

Numerous businesses in San Luis Obispo County require specialized rescue services; some examples include 6 significant industrial facilities, approximately 20 medium and light industrial businesses, over 250 wineries, 215 miles of 12-26 inch oil and natural gas transmission pipelines, and 72 miles of mainline railroad. The Rail Spur Project combined with the proposed expansion of the Arroyo Grande Oil Field and the proposed Phillips 66 crude oil pipeline would increase the demand for these specialized rescue services in southern San Luis Obispo County.

The Nipomo Mesa has a well-established commercial business area, and thousands of homes are now in the initial response area of the Mesa Fire Station 22. Some of the cumulative housing development project would increase demand of the Fire and life safety services provided by the Mesa Fire Station 22.

Specialized, rapid and adequately staffed response is crucial to keep incidents small and minimize the impact on citizens and environmental health. Due to the unique hazards associated with the Rail Spur Project and the other oil and gas cumulative projects, and the response time for specialized teams to arrive at these facilities; it is necessary to provide additional prevention and operational staffing to aggressively plan and train for effective mitigation of incidents.

The cumulative increase of anticipated emergency response requirements, which brings additional inherent hazards, additional employees, and associated vehicle traffic, requires adequate staffing to respond to incidents at these facilities. With the Fire Services mitigation measures identified for the Rail Spur Project, project's contribution to cumulative fire fighting and emergency response staffing and training levels would be less than significant at the SMR.

The cumulative oil projects in Northern Santa Barbara County would rely upon Santa Barbara County Fire as the primary first responder in the event of an incident at these oil production facilities. Cal Fire/San Luis Obispo Fire would be the first responder to any incidents associated with the Rail Spur Project at the SMR. Since there is no overlap in with the first responders, there would be no cumulative fire fighting and emergency response impacts with these northern Santa Barbara County projects.

There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3. In conducting the cumulative analysis for crude by rail it has been assumed that the cumulative projects listed in Table 3.1 would use the same rail car tank design as the SMR Rail Spur Project, and that the cumulative crude by rail projects, with the exception of the Phillips Rail Spur Project, would transport a Bakken type crude, which is a worst case assumption.[1] It has also been assumed that all of the Rail Spur Project crude oil trains would use routes discussed below.

If all of the crude by rail projects travel via the UPRR Roseville Rail Yard, then up to eight crude oil trains per day could travel on the stretch of track between Sacramento and the California boarder (two for Valero, one for Kinder Morgan, two for Alon, one for Targa, one for Plains All American, and one for the SMR). From Roseville, rail traffic would likely follow two different routes; one following the I-80 corridor to Reno, Nevada, with the other heading north along the I-5 corridor to Oregon. A third route through the Feather River Canyon was not considered for further analysis.

From Sacramento the crude oil trains servicing the Valero Benicia and Kinder Morgan projects could use the same UPRR tracks as the Rail Spur Project from Sacramento to the Bay Area. This

[1] Canadian Crude, as specified in the Project Description, was assumed for the Phillips Rail Spur Project as part of the project and cumulative analysis.

portion of track could have up to four crude oil trains per day (two for Valero, one for Kinder Morgan, and one for the SMR).

From Sacramento the crude oil trains servicing the Alon, Targa, and Plains All American projects could use the same tracks as the Rail Spur Project from Sacramento to Stockton a distance of about 46 miles. This portion of track could have up to five crude oil trains per day (two for Alon, one for Plains All American, one for Targa, and one for the SMR).

This level of crude oil train traffic would increase the probability of an oil spill along these mainline routes. Assuming all of the cumulative crude oil trains use the same route from Sacramento to the California border, the cumulative probability of a 100 gallon or greater oil spill would be about once every seven years for the route from the SMR to the Oregon border, and once every six years for the route from the SMR to the Nevada border.

None of the other cumulative crude by rail projects would use the mainline tracks along the southern route thorough the Los Angeles Basin since the crude oil trains going to Bakersfield would use Tehachapi Pass via Barstow and would not travel has far west as Colton. However, up to four unit trains per day could share the route between Nevada and Barstow (two for Alon, one for Plains All American, and one for the SMR). Assuming these cumulative crude oil trains use the same route from Barstow to the California border, the cumulative probability of a 100 gallon or greater oil spill would be about once every 25 years for the southern route from the SMR to the Nevada border.

An accident along one of these stretches of the mainline route could result in oil spill or fire. In the event of an accident, State and local emergency responders (hazmat teams, fire fighters, and police) along with UPRR would be responsible for the response. The cumulative increase in crude oil trains along these stretches of track would increase the likelihood that there would be an incident. As discussed in impact PS.4 above, an analysis by OES clearly indicates that fire and emergency responders lack resources, training and information in order to adequately respond to a crude oil train incident along the mainline tracks. Without proper training, information, and capabilities the cumulative impacts of a release of crude oil or fire on the mainline tracks would have significant cumulative impact on fire protection and emergency response services.

Implementation of the mitigation measures PS-4a through PS-4e would provide training, information, and capabilities to all of the local emergency response agencies along these stretches of mainline track. However, The County may be preempted by federal law from implementing these measures as they require particular contractual provisions that might be determined to improperly impact interstate commerce or conflict with the Interstate Commerce Commission Termination Act (ICCTA), which preempts state laws with respect to rail transportation. Therefore, the cumulative impacts to fire protection and emergency services for crude oil trains moving along the mainline tracks would be considered significant and unavoidable.

4.11.6 Mitigation Monitoring Plan

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
PS-1	Prior to issuance of grading permits, the Applicant shall submit a Solid Waste Management Plan (SWMP) for approval by San Luis Obispo County to maintain a diversion rate of at least 50 percent of construction waste from reaching the landfill. The SWMP shall consist of information regarding, but not limited to: a. The name and contact information of who will be responsible for implementing the recycling plan; b. A brief description of the Project wastes to be generated, including types and estimated quantities of each material to be salvaged, reused, or recycled during the construction phase of this Project; c. Waste sorting/recycling and/or collection areas shall be clearly indicated on the Site Map; d. A description of the means of transportation and destination of recyclable materials and waste, and a description of where recyclable materials and waste will be sorted (whether materials will be site-separated and hauled to designated recycling or landfill facilities, or whether mixed materials will be removed from the site to be processed at a mixed waste sorting facility); e. The name of the landfill(s) where trash will be disposed of and a projected amount of material that will be landfilled; f. A description of meetings to be held between Applicant and contractor to ensure compliance with the recycling plan; g. A contingency plan shall identify an alternate location to recycle and/or stockpile construction debris in the event of local recycling facilities becoming unable to accept material (for example: all local recycling facilities reaching the maximum tons per day due to a time period of unusually large volume); h. Disposal information including quantity of material landfilled, which landfill was used, total landfill tipping fees paid, and copies of weight tickets, manifests, receipts, and invoices; i. Recycling information including quantity of material recycled, receiving party, and copies of weight tickets, manifests, receipts, and invoices; and j. Reuse and salvage information including quantities of salvage materials, storage locations if they are to be used on-site, or receiving party if resold/used off-site.	Review of SWMP Field verification	Prior to Grading Permit During Construction	County Planning and Building
PS-3a	Prior to issuance of construction permits, the Applicant shall submit to Cal Fire/County Fire for review and approval a final Fire Protection Plan for the Rail Spur	Review of Fire Protection	Prior to Construction Permits	Cal Fire

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
	Project that meets all the applicable requirements of API, NFPA, UFC, and Cal Fire/County Fire.	Plan		
PS-3b	Prior to notice to proceed for the rail unloading facility, the Applicant shall update the SMR Emergency Response Plan to include the rail unloading facilities and operations.	Review of Emergency Response Plan	Prior to Notice to Proceed	Cal Fire County Planning and Building
PS-3c	Prior to notice to proceed for the rail unloading facility, the Applicant shall update the existing SMR Spill Prevention Control and Countermeasure Plan to include the rail unloading facilities and operations.	Review of SPCCP	Prior to Notice to Proceed	Cal Fire County Planning and Building
PS-3d	Prior to notice to proceed for the rail unloading facilities, the Applicant shall assure that the existing SMR fire brigade meets all the requirements outlined in Occupational Safety and Health Administration 29 CFR 1910.156, and NFPA 600 & 1081.	Review of training records	Prior to Notice to Proceed	Cal Fire
PS-3e	Prior to issuance of grading permits, the Applicant shall have an executed operational Memorandum of Understanding (MOU) (now called the Operating Plan) with Cal Fire/County Fire that includes fire brigade staffing/training requirements and Cal Fire/County Fire funding requirements. This MOU shall be reviewed and updated annually by Cal Fire and the Applicant.	Copy of signed MOU	Prior to Grading Permits	Cal Fire County Planning and Building
PS-3f	Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for time spent by a qualified fire inspector to conduct the annual fire inspections at the SMR including all structures, and support facilities consistent with Cal Fire/County Fire's authority and jurisdiction. The Applicant shall reimburse all costs associated with travel time, inspections, inspection training, and documentation completion. The reimbursement rate shall be according to the most recent fee schedule adopted by the San Luis County Board of Supervisors.	Payment received by Cal Fire	Prior to Grading Permits	Cal Fire County Planning and Building
PS-3g	Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for offsite training for emergency responders to railcar emergencies, such as the 40 hour course offered by Security and Emergency Response Training Center Railroad Incident Coordination and Safety (RICS) meeting Department of Homeland security, NIIMS, OSHA 29CFR 1910.120 compliance. Initial training shall be two members of the Interagency Hazardous materials Response Team, two members of the interagency Urban Search and Rescue Team, and two members annually from Cal Fire/County Fire or fire districts in San Luis Obispo that have automatic aid agreements with Cal Fire/County Fire for a total of six slots per year for the life of the project.	Copy of signed agreement	Prior to Grading Permits	Cal Fire
PS-3h	Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for Fire Chief Officer attendance such as the 40 hour course offered by Security and Emergency Response Training	Copy of signed agreement	Prior to Grading Permits	Cal Fire

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
	Center; Leadership & Management of Surface Transportation Incidents. Funding shall be for two Fire Chief Officers annually for the life of the project.			
PS-3i	Prior to issuance of grading permits, the Applicant shall have an agreement with Cal Fire/County Fire to conduct annual emergency response scenario/field based training including Emergency Operations Center Training activations with the Applicant, Cal Fire/County Fire, UPRR, and other San Luis Obispo County First response agencies that have mutual aid agreements with Cal Fire/County Fire. These annual emergency response drills shall occur for the life of the project.	Copy of signed agreement	Prior to Grading Permits	Cal Fire
PS-4a	The Applicant shall provide advanced notice of all crude oil shipments to the Santa Maria Refinery, and quarterly hazardous commodity flow information documents to all first response agencies along the mainline rail routes within California that could be used by trains carrying crude oil to the Santa Maria Refinery for the life of the project. Only first response agencies that are able to receive security sensitive information as identified pursuant to Section 15.5 of Part 15 of Title 49 of the Code of Federal Regulations, shall be provided this information. The plan for providing notice to first response agencies shall be in place and verified by the County Department of Planning and Building prior to delivery of crude by rail to the Santa Maria Refinery.	Review of plan Review of notices to Agencies with quarterly information	Prior to Notice to Proceed During Operations	Cal Fire
PS-4b	Only rail cars designed to FRA, July 23, 2014 Proposed Rulemaking Option 1: PHMSA and FRA Designed Tank Car shall be allowed to unload crude oil at the Santa Maria Refinery.	Review of tank car specification sheets Site Inspection	Prior to Notice to Proceed During Operations	County Planning and Building
PS-4c	The Applicant shall provide annual funding for first response agencies along the mainline rail routes within California that could be used by the trains carrying crude oil to the Santa Maria Refinery to attend certified offsite training for emergency responders to railcar emergencies, such as the 40 hour course offered by Security and Emergency Response Training Center Railroad Incident Coordination and Safety (RICS) meeting Department of Homeland security, NIIMS, OSHA 29CFR 1910.120 compliance. The Applicant shall fund a minimum of 20 annual slots per year for the life of the project. The plan for funding the emergency response training shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.	Review of plan Review of training records	Prior to Notice to Proceed During Operations	Cal Fire
PS-4d	As part of the Applicant's contract with UPRR, it shall require annual emergency responses scenario/field based training including Emergency Operations Center Training activations with local emergency response agencies along the mainline rail routes within California that could be	Review of contract Review of annual drill	Prior to Notice to Proceed During Operations	Cal Fire

Mitigation Measure	Plan Requirements and Timing	Compliance Verification		
		Method	Timing	Responsible Party
	used by the crude oil trains traveling to the Santa Maria Refinery for the life of the project. A total of four training sessions shall be conducted per year at various locations along the rail routes. This contract provision shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.	records		
PS-4e	As part of the Applicant's contract with UPRR, it shall require that all first response agencies along the mainline rail routes within California that could be used by trains carrying crude oil traveling to the Santa Maria Refinery be provided with a contact number that can provide real-time information in the event of an oil train derailment or accident. The information that would need to be provided would include, but not be limited to crude oil shipping papers that detail the type of crude oil, and information that can assist in the safe containment and removal of any crude oil spill. This contract provision shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.	Review of contract Review of notices to Agencies with contact number	Prior to Notice to Proceed During Operations	Cal Fire
PS-5	Prior to notice to proceed for the rail unloading facility, the Applicant shall update their existing Security Plan to include the Rail Spur Project.	Review of Security Plan	Prior to Notice to Proceed	County Planning and Building

4.11.7 References

Anderson, Jim. [telephone communication]. 2013. To MRS. Phillips 66. SMR Fire Brigade.

American Association of Railroads. 2014. Freight Rail Industry Crude-by-Rail Safety Measures. 2014.

CalFire. 2014. Hazardous Materials Team. Accessed from http://www.calfireslo.org/operationshazmat.html on August 20, 2014.

_____. 2013. Letter to Murry Wilson on Rail Spur Project. August 19, 2013.

CalRecycle, 2013a, Jurisdiction Diversion/Disposal Rate for SLO County Integrated Waste Management Authority, http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionDetail.aspx

_____2013b. http://www.calrecycle.ca.gov/FacIT/Facility/Search.aspx. Accessed October 10, 2013.

_____2013c. http://www.calrecycle.ca.gov/LGCentral/Reports. Accessed October 10, 2013.

_____2013d. http://www.calrecycle.ca.gov/LGCentral/GoalMeasure/DisposalRate/Graphs/Disposal.htm. Accessed October 8, 2013.

_____1999. Statewide Waste Characterization Study, Results and Final Report. December 1999.

California Department of Finance, 2013, city/County Population and Housing Estimates, January 1, 2013.

California Energy Commission. 2013. http://energyalmanac.ca.gov/electricity/total_system_power.html. Accessed October 11, 2013.

California Energy Commission (CEC). 2011 [updated]. Total Electricity System Power. Accessed from http://energyalmanac.ca.gov/electricity/total_system_power.html. on July 9, 2011. Electricity generation fuel types.

California Office of Emergency Services. Hazmat Company Resource Types-Quick Reference.

County of San Luis Obispo (County). 2013. Inland Area Plan. Sheriff's department response times.

Day, Chris. [telephone communication]. 2011. To Envicom Corporation. California Highway Patrol. Number of CHP officers at San Luis Obispo Station.

Donnelly, Laurie. [e-mail communication]. 2013. To MRS. Cal Fire staffing, response times and fire safety development requirements for Rail Spur Project.

Donnelly, Laurie. [e-mail communication]. 2014. To MRS. Cal Fire hazmat team certification.

Integrated Waste Management Board. 2009. *California 2008 Statewide Waste Characterization Study*. Pg. 17.

Mann, Marsha. [letter to Murry Wilson] 2013. Santa Maria Rail Project letter to Murry Wilson, SLO County Planning and Building from Marsha Mann , Crime Prevention Specialist, San Luis Obispo County Sheriff's Department. July 12, 2013.

San Luis Obispo County Sheriff's Office (SLO Sheriff). 2013. Division and Units. Field Operations. Accessed from http://slosheriff.org/_Divisions/FieldOperations.aspx on April 25, 2013.

_____ 2012. SLO County Sheriff's Office Annual Report. 2012.

State of California (Interagency Rail Safety Working Group). 2014. Oil by Rail Safety in California. June 10, 2014.

UPRR. 2014. Crude by Rail. 2014.