CEQA REQUIRED FINDINGS FOR THE PHILLIPS 66 COMPANY RAIL SPUR EXTENSION PROJECT CONDITIONAL USE PERMIT (DRC2012-00095 / ED12-201)

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1.0 ENVIRONMENTAL DETERMINATION

The Environmental Impact Report (EIR) was prepared, pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] §21000 et seq.), to evaluate the environmental impacts resulting from approval of the Phillips 66 Company Rail Spur Extension Project, which consists of a 6,915-foot long rail spur, an unloading facility, onsite pipelines, replacement of coke rail loading tracks, the construction of five parallel tracks with the capacity to hold a 5,190-foot-long unit train consisting of 80 tank cars (60 feet each), two buffer cars (60 feet each), and three locomotives (90 feet each), and accessory improvements. Development would be under County jurisdiction.

The County acts as the Lead Agency for purposes of preparing this Environmental Impact Report (EIR) and for purposes of ultimately certifying a Final EIR. The findings and recommendations set forth below (Findings) are adopted by the County under CEQA and the CEQA Guidelines (California Code of Regulations [CCR] Title 14, §15000 et seq.) relating to the project. The Findings provide the written analysis and conclusions regarding the project's environmental impacts, mitigation measures, and alternatives to the project.

2.0 PROJECT DESCRIPTION

Phillips 66 is proposing to modify the existing rail spur currently on the southwest side of the Santa Maria Refinery (SMR) and to build and operate a crude oil rail unloading facility. The rail spur extension is proposed entirely on the SMR property and would be located east of the Union Pacific Railroad and adjacent to the existing refinery facilities. The area of the Rail Spur Project is zoned for industrial use.

2.1 GENERAL BACKGROUND

The SMR was built on the Arroyo Grande mesa in southern San Luis Obispo County (SLOC) in 1955. The facility is surrounded by industrial, recreational, agricultural, residential land, and open space. The SMR operates 24 hours per day and 365 days per year, except when shut down for maintenance. The SMR was previously owned by several companies, including Union Oil Company of California, Tosco, Phillips Petroleum, and ConocoPhillips. Since 1955, the land use has been petroleum oil refining. The SMR and the Rodeo Refinery (located in the San Francisco Bay area), are linked by a 200-mile pipeline and comprise the San Francisco Refinery. The SMR is designed to process heavy, high-sulfur crude oil. The refinery is not designed to process large quantities of light crude oil. Semi-refined liquid products from the SMR are sent by pipeline to the Rodeo Refinery for upgrading into finished petroleum products. The semi-refined products that are shipped via pipeline to the Rodeo Refinery include naphtha and gas oils. Products leaving the SMR are: (1) semi-refined petroleum by pipeline; (2) solid petroleum coke by rail or haul truck; and (3) solid recovered sulfur by haul truck.

2.1.1 Project Location

The Project is located approximately 3 miles west of the community of Nipomo on the west side of State Route 1, immediately east of the Oceano Dunes State Vehicle Recreation Area (ODSVRA). The project site is located at 2555 Willow Road, Arroyo Grande (SR 1) (APN 091-141-062, 092-391-021, 034, 092-401-005, 011, 013, 092-411-002, 005). The project site is located within the Industrial Land Use Category.

2.1.2 Project Objectives

Pursuant to Section 15124(b) of the CEQA Guidelines, the description of the proposed project is to contain "a clearly written statement of objectives" that would aid the lead agency in developing a reasonable range of alternatives to evaluate in the EIR, would aid decision makers in preparing findings and, if necessary, a statement of overriding considerations.

The objectives of the project as defined by the Applicant are the following:

1. Allow the refinery to obtain a range of competitively priced crude oil by providing the capability to obtain raw material from North American sources that are served by rail.

2. Extend the existing rail spur within the refinery and install the necessary infrastructure to safely and efficiently transfer crude oil from rail cars to the existing refinery storage tanks for processing.

3. Avoid and minimize environmental and community impacts, and mitigate any unavoidable impacts to the maximum extent feasible.

4. Develop a project that is consistent with the objectives of the San Luis Obispo County General Plan and Local Coastal Program.

5. Design, construct, and operate a project that complies with all local, state, and federal regulatory requirements.

6. Maximize the use of existing infrastructure and resources to support the economic vitality of the County and State.

2.2 PROJECT COMPONENTS

Phillips 66 proposes to extend an existing rail spur which is currently used for shipment of coke (an oil refinement by-product) from the southwest side of the refinery extending east, to add an unloading facility for crude oil trains, onsite pipelines, and replacement coke rail loading tracks. The initial application submitted to the County by the Applicant was for five unit trains per week. During the Planning Commission Hearings, the Applicant amended the project to three trains per week and a maximum of 150 trains per year, consistent with the Reduced Delivery Alternative evaluated in the FEIR (see February 1, 2006 letter from Applicant to Planning Commission). These trains would deliver heavy crude for refinement at the Santa Maria Refinery. Additionally, an existing agricultural road would be improved as an unpaved eastern Emergency Vehicle Access route between the eastern end of the rail spur and State Route 1. The tracks and unloading facilities would be designed to accommodate trains of approximately 80 tank cars and associated locomotives and buffer cars in unit trains or manifest train configurations. These trains would deliver crude oil to the facility for refining. The unloaded material would be transferred to the existing crude oil storage tanks via a new pipeline that would be constructed across the existing coke storage area and along an existing internal refinery road. The project construction would occur entirely within the existing Phillips 66 SMR boundary.

2.1.3 Construction

The project would also include work within the existing refinery connecting and upgrading existing infrastructure. This includes adding a new electricity cable to an existing pipeway and adding a new fire water pipeline to an existing pipe rack. The rails on the existing rail spur would also be replaced. The new rail spur lines would extend from the terminus of the current spur. The unloading facility would be located at the end of the existing coke storage area and along an existing internal refinery road.

The construction areas are summarized below:

- 6,915 feet – Length of spur extension (including approximately 2,445 feet within the existing industrial coke plant area);
- 270 feet – Maximum width of construction area for rail extension;
- 2,325 feet – Length of the new pipeline route from the unloading facility to the internal refinery (an additional 2,800 feet would be constructed within the existing refinery connecting to the existing storage tanks and existing steam boilers); and
- 2,400 feet - Length of new steam pipelines from the unloading facility east between Tracks 1 and 2.

The maximum width of the temporary construction area for pipeline installation would be 25 feet. Acreage breakdowns (temporary + permanent) are summarized below:

- 41.6 acres – Rail Spur and Unloading Facility (25.3 acres permanent + 16.3 temporary),
- 3.8 acres – New Pipeline (1.8 acres permanent + 2 acres temporary), and
- 1.6 acres – Secondary Emergency Vehicle Access (1.6 acres permanent).

Collectively, the entire project, including temporary and permanent impacts, would affect approximately 47 acres. Of this area, 19.5 acres would occur within the existing refinery and coke area, and 27.5 acres would occur in undeveloped areas outside the refinery and coke facilities. A more detailed description of the Project can be found in section 2.0 of the Final EIR.

Currently undisturbed areas, temporarily affected during construction, would be returned to pre-project conditions following completion of construction. The construction grading would create approximately 139,775 cubic yards of cut and 113,675 cubic yards of fill. Note that the final volumes may differ based on final engineering design plans. The overall construction is anticipated to occur over a period of 9 – 10 months.

2.1.4 Operations

Project operations would include unloading of up to three trains per week, with an annual maximum number of trains expected to be approximately 150. Trains would arrive from different oilfields and/or crude oil loading points depending on market availability. Trains could arrive at the Phillips 66 site from the north or the south. The refinery feedstock definition (meaning the materials that could be transported by train into the proposed facility) excludes gaseous feeds, natural gas liquids (NGL), liquefied petroleum gas (LPG), finished refined products, and Bakken

crude. The feedstock would be sourced from oilfields throughout North America based on market economics and other factors.

Crude oil would be shipped to the refinery in ~~non-jacketed CPC-1232~~DOT-117/117P/117R tank cars~~ (i.e., post-October 1, 2011 tank cars)~~. ~~Appendix A~~Table 4.7.20 of the FEIR provides the specification for the tanks cars (page~~s A-31 and A-32~~ 4.7-96). These cars have a capacity of approximately 31,808 gallons per car. Each car has a weight limit of 210,700 pounds of crude oil. Each tank car would be approximately 60 feet long. The total length of a unit train would be about 5,190 feet long (three locomotives at 90 feet, two buffer cars at 60 feet, and 80 tank cars at 60 feet).

On May 1, 2015, the DOT issued their final rule covering enhanced tank car standards for the transportation of flammable liquids by rail, which provides the minimum specifica~~i~~tions for tank car design standards~~s~~ and other requirements for the transportation of flammable liquids by rail. (i.e., limits on operating speeds).~~ In August 2011, the AAR Tank Car Committee adopted new industry construction specifications for tank cars and the CPC-1232 design became the standard for all tank cars built after October 2011. The rail cars would be designed to~~ The project's tank cars would be in compliance with the new DOT rule and also meet DOT Packing Group I requirements, which is the highest rating. The tank cars would be equipped with ~~half~~ full height head shields, double couplers, and all stainless steel valves. The relief valve would be designed for high flow.

In a unit train configuration, each train would consist of three locomotives, two buffer cars, and 80 railcars each carrying approximately carrying approximately 27,300 gallons crude oil (less than the tank size capacity due to weight) for a total of about 52,000 barrels of crude oil per unit train. With the delivery of three unit trains per week the average daily delivery of crude oil would be 21,370 barrels, which is less than the SLO County permitted capacity of 44,500 barrels per day.

Due to the weight of the train and the steep grade, an additional two locomotives would be required for the portion of the route between Santa Margarita, California and San Luis Obispo, California coming over the Cuesta Grade (a distance of approximately 15 miles). In a manifest train configuration, varying number of railcars would be dropped off at SMR by a passing train. A dedicated locomotive would remain on-site to move cars. This would be a small locomotive that would only be capable of moving a few rail cars at a time, and would not be used for unloading of unit trains. In a manifest train configuration, a number of crude oil railcars would be dropped at the refinery and then the train would continue to other destinations. Rail cars delivered via manifest train would meet the same DOT tank car design specifications as discussed above for the unit train tank cars. The refinery would have a dedicated locomotive that would be used to move the railcars from the manifest train while they are on site. This dedicated locomotive would only be used for manifest deliveries.

Because trains would arrive at different times throughout the week, the number of workers would vary depending on the number of trains and worker arrival and departure time would vary throughout the day and night. Additional employees over the current refinery employees would be required in order to unload and manage the trains, with the increase ranging as high as 12 additional employees at one time.

Consistent with current operations, the crude oil delivered by rail and pumped to the storage tanks at the refinery would be processed at the SMR and then the semi-refined products would be transported by pipeline to the Rodeo refinery in the Bay Area. No crude oil or refined product

would be transported out of the refinery by rail except for any off-spec crude that is delivered by rail. No crude oil would be moved from the refinery via pipeline.

Trains would arrive from different oilfields and/or crude oil loading points depending on market availability. The exact location of the source of crude oil that would be delivered to the refinery is unknown and could change over time based upon market conditions and availability. Union Pacific Railroad (UPRR) would be responsible for delivering the trains to the SMR. Trains could enter California from 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 Phillips 66 site from the north or the south.

It is unknown what route UPRR would use to deliver the trains to the SMR and it would likely vary based on the source location of the crude oil. However, there is certainty regarding the two segments of the route on the "Coast Line" that lead to the SMR from the north and from the south where there are no alternative routes. Coming from the north, the available routes merge south of San Jose. Coming from the south, the available routes merge north of Los Angeles. Locomotive refueling for the unit trains would not need to be conducted at the refinery since the main line engines would be used to handle the cars while at the refinery. UPRR would ensure the main line engines were adequately fueled prior to arrival on site. However, refueling of the dedicated locomotive that would be used with manifest trains would need to occur on site. Diesel fuel for the onsite locomotive would be delivered to the refinery by tanker truck. The fuel would be pumped from the tanker truck directly to the locomotive. The amount of refueling needed would depend upon the frequency of delivery of manifest railcars. The maximum refueling would be one tanker truck per week. Each tanker truck would carry about 4,000 gallons of diesel fuel.

The SMR is designed to handle heavy sour crude. SMR partially refines the crude oil to extract intermediates and gases, and uses the heavier crude oil components to produce petroleum coke. The SMR refinery is not designed to handle light sweet crudes such as Bakken, and is not designed to produce finish grade petroleum products such as gasoline, diesel fuel, jet fuel, etc. Gases produced at the refinery are processed in a sulfur removal system and then used as fuel at the refinery. Sulfur removed from the gas is converted to elemental sulfur and sold. Gas oil and naphtha recovered as part of the distillation and coking processes are shipped by pipeline to the Phillips Rodeo Refinery in the San Francisco Bay area for processing into gasoline, diesel fuel, and other petroleum end-use products.

The bulk of the crude oil processed at the SMR comes from offshore platforms in the Outer Continental Shelf of Santa Barbara County and from oil fields in the Santa Maria area. In addition, to the material shipped to SMR directly by pipeline from the source, crude oil from some onshore areas, such as the Arroyo Grande (Price Canyon) oil field and the San Joaquin Valley is delivered by pipeline and truck to the Santa Maria Pump Station and then pumped into a dedicated pipeline to the SMR. The SMR has been processing Canadian crude for about one year. The Canadian crude processed at the SMR has been Kearl Lake dilbit crude (i.e., diluted bitumen crude), which is a heavy, high sulfur crude mixed with a diluent, which is a less viscous hydrocarbon. Canadian crude has made up 2-7% of the crude processed at the SMR. The Canadian crude is shipped via rail to a crude unloading facility near Bakersfield California and then is trucked to the Santa Maria Pump Station for delivery into the dedicated pipeline, which carries crude oil to the SMR.

3.0 GENERAL FINDINGS

3.1 CEQA GENERAL FINDINGS

A. The County Planning Commission finds and declares that it has considered the Final EIR, that the Final EIR is adequate for use by the County in evaluating and approving the project, and that the following findings and determinations represent its own, independent conclusions on whether and how to approve the project.

B. The County Planning Commission finds that changes or alterations have been incorporated into the project to ~~eliminate~~ avoid or substantially lessen the project's significant environmental impacts where feasible. These changes or alterations include mitigation measures and project modifications outlined herein and set forth in more detail in the Project Description and the Alternatives sections (see Final EIR).

C. The County Planning Commission finds that the project, as approved, includes an appropriate Mitigation Monitoring and Reporting Program. This mitigation monitoring program ensures that measures that avoid or substantially lessen the ~~significant~~ project's significant environmental impacts, as required by CEQA and the State CEQA Guidelines, will be implemented as described.

D. Per CEQA Guidelines §15126.4(a)(1)(B), the project includes mitigation measures that contain specific performance-based ~~conditions~~ standards intended to avoid or substantially lessen the project's significant ~~relating to~~ environmental impacts and includes requirements to prepare more detailed plans that will further define the mitigation measures based on the performance-based standards adopted in this FEIR, which will ~~more detailed plans to~~ be submitted to County Planning and Building for review and approval ~~as a part of the~~prior to the construction ~~and~~or operational phase~~s~~. Conditions and mitigation measures contain specific performance-based standards upon which the project proponent will rely to establish the detailed plans and therefore avoid the potential for these conditions or measures to be considered deferred mitigation under CEQA.

3.2 LEAD AGENCY AND RESPONSIBLE AGENCY USE OF THE FINAL EIR AND FINDINGS

The CEQA Guidelines authorizes the lead ~~agencies~~ agency (defined in PRC § 21067 as "the public agency~~ies~~ which~~that~~ ~~have~~ has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment" ~~and for implementing CEQA~~) to approve a project with significant environmental effects if there is no feasible way to lessen or avoid the significant effects and the project's benefits outweigh these effects. Responsible agencies (defined in PRC § 21069 as "public agencies, other than the lead agency, ~~that~~ which have responsibility for carrying out or approving a project" ~~and for complying with CEQA~~) have a more limited authority to only make substantive comments on the lead agency's DEIRs ~~require changes in the project~~ regarding those activities involved in the project that are within the area of expertise of the agency or that are required to be carried out or approved by the agency. ~~to lessen or avoid only the effects, either direct or indirect, of that part of the project which the agency will be called on to carry out or approve~~ (PRC §21104(c), §21153(c); CEQA Guidelines §15041(b), §15042)..

3.3 THE RECORD

For purposes of CEQA and these Findings, the Record of Proceedings for the proposed project consists of the following documents and other evidence, at a minimum:

- The NOP and all other public notices issued by the County in conjunction with the proposed project;
- The certified Final EIR for the proposed project which consists of the Draft EIR, the technical appendices, and the Response to Comments;
- All written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR;
- All responses to written comments submitted by agencies or members of the public during the public review and comment period on the Draft EIR;
- All written and verbal public testimony presented during noticed public hearings for the proposed project at which such testimony was taken;
- The Mitigation Monitoring and Reporting Program;
- The documents, reports, and technical memoranda included or referenced in the technical appendices of the Final EIR;
- All documents, studies, EIRs, or other materials incorporated by reference in the Draft and Final EIRs including all the application documents and studies submitted by the Applicant and the information provided by the Applicant in response to Planning Department information requests;
- The Resolutions adopted by the County in connection with the proposed project, and all documents incorporated by reference therein;
- Matters of common knowledge to the County, including but not limited to federal, state, and local laws, regulations, and policy documents;
- Written correspondence submitted to the County in connection with the project;
- All documents, County Staff Reports, County studies, and all written or oral testimony provided to the County in connection with the project;
- All findings and determinations made by the County in certifying the Final EIR;
- All testimony and deliberations received or held in connection with the project; and,
- Any other relevant materials required to be in the record of proceedings by Public Resources Code Section 21167.6(e) (excluding privileged materials).

3.4 CERTIFICATION OF THE FINAL ENVIRONMENTAL IMPACT REPORT

The San Luis Obispo County will need to make the following findings with respect to the Final EIR:

1. The Final EIR was prepared in compliance with the California Environmental Quality Act (CEQA) and was considered by the County prior to any approvals of the project.

2. The Final EIR reflects the independent judgment of the County.

3. For each significant environmental effect that can be mitigated to less than significant identified in the FEIR under the categories of Aesthetics, Agricultural Resources, Air Quality and Greenhouse Gases, Biological Resources, Cultural Resources, Geological Resources, Noise and Vibration, Public Services and Utilities, Transportation and Circulation and Water Resources, the approved mitigation measures contained in the FEIR will avoid or substantially lessen the identified significant adverse environmental impacts of the project to a level of insignificance and have been incorporated into the project.

San Luis Obispo County findings will also need to state that, "The significant effects identified in the Agricultural Resources, Air Quality and Greenhouse Gases, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, Public Services and Utilities and Water Resources sections of the EIR will not be fully mitigated to a degree of insignificance with the incorporation of all the identified mitigation measures included in the EIR." Therefore, a Statement of Overriding Considerations Findings must be adopted.

The location and custodian of the documents and materials that comprise the record is:

San Luis Obispo County
Department of Planning and Building
976 Osos Street, Room 200
San Luis Obispo, CA 93408

The County has relied on all of the documents listed above, in section 3.3, "The Record," in reaching its decisions on the proposed Project even if not every document was formally presented to the Planning Commission or County Staff as part of the County files generated in connection with the Project. Without exception, any documents set forth above not found in the Project files fall into one of two categories. Some of them reflect prior planning or legislative decisions of which the Planning Commission was aware in approving the Project. (See *City of Santa Cruz v. Local Agency Formation Commission* (1978) 76 Cal.App.3d 381, 391-391; *Dominey v. Department of Personnel Administration* (1988) 205 Cal.App.3d 729, 738, fn. 6.) Other documents inf~~luenced~~ormed the expert advice provided to County Staff or consultants, who then provided advice to the Planning Commission. For that reason, such documents may form part of the underlying factual basis for the County's decisions relating to approval of the Project. (See Pub. Res. Code, § 21167.6 (e)(10); *Browning-Ferris Industries v. City Council of City of San Jose* (1986) 181 Cal.App.3d 852, 866; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 153, 155.) These findings cite specific pieces of evidence, but none of the Commission's findings are based solely on those pieces of evidence. These project approval and the findings are based upon the entire record, and the Commission intends to rely upon all supporting evidence in the record for each of its findings.

3.5 DIFFERENCES OF OPINION REGARDING ENVIRONMENTAL ANALYSIS

In making its determination to certify the Final EIR and to approve the project, the Commission recognizes that the project involves controversial environmental issues and that a range of technical and scientific expert opinion exists with respect to those issues. The Commission has acquired an understanding of the range of this technical and scientific opinion by its review of the Revised Draft EIR, the comments received on the Revised Draft EIR and the Final EIR, including the responses to public comments, as well as other testimony, letters, and reports submitted for the record. The Commission recognizes that some of the comments submitted on the EIR and at the hearing disagree with the conclusions, analyses, methodology and factual bases stated in the EIR. The Commission has reviewed and considered, as a whole, the evidence and analysis presented in the EIR and in the record, and has gained a comprehensive and well-rounded understanding of the environmental issues presented by the Project. In turn, this understanding has enabled the Commission to make its decisions after weighing and considering the various viewpoints on these important issues. In adopting these findings and approving the Project, the Commission relies predominantly on the expertise of the consultants retained by the County, while recognizing that the evidence and opinions others submitted through the public comment process have also contributed to the final analysis and conditions of approval.

4.0 STATEMENT OF OVERRIDING CONSIDERATIONS

The Final EIR has identified and discussed significant effects that will occur as a result of the proposed project. With the implementation of the mitigation measures identified in the Final EIR, these effects can be feasibly mitigated to a level of insignificance except for the following issue areas:

- Agricultural Resources,
- Air Quality and Greenhouse Gases,
- Biological Resources,
- Cultural Resources,
- Hazards and Hazardous Materials,
- Public Services and Utilities, and
- Water Resources

All but one of the significant, unavoidable environmental effects of the Project are associated with mainline rail transportation of crude oil. These significant impacts are summarized in the CEQA Findings and constitute the impacts for which this Statement of Overriding Considerations is made because there are no legally feasible mitigation measures that the County can implement that can avoid or lessen the project's significant environmental effects on the issue areas, noted above. There are no significant, unavoidable adverse environmental impacts from project construction and one significant, unavoidable adverse environmental impact from operations on the refinery site due to diesel particulate matter ("DPM") emissions, which exceed the San Luis Obispo Air Pollution Control District's ("SLOAPCD") daily threshold of 1.25 lbs per day. It is uncertain if there are feasible mitigation measures that would be

adequate to reduce the DPM emissions ~~reductions~~ in the vicinity of the SMR to ~~reduce this impact to~~ a level of less than significant ~~with mitigation~~. Therefore, it has remained a significant, unavoidable adverse environmental impact.

The Planning Commission finds and determines in approving the Project that the Final EIR has disclosed the significant effects of the Project, and identified means of avoiding or lessening those significant effects. The Planning Commission recognizes that, even with the incorporation of mitigation, significant and unavoidable impacts will result from implementation of the Project.

Having (1) reduced the environmental effects of the proposed project by adopting all feasible mitigation measures and a program to monitor the implementation of mitigation measures for project-related impacts, (2) recognized all significant, unavoidable impacts, and (3) balanced the benefits of the Project against the Project's significant and unavoidable impacts, the County Planning Commission pursuant to CEQA Guidelines sections 15093 and 15092 hereby determines that the benefits of the proposed project outweigh the significant, unavoidable adverse impacts based on the following overriding considerations:

1. **The Rail Spur Project would provide additional economic benefits to the local and regional economy -** The Rail Spur Project consists of a modification of the existing Santa Maria Refinery. The Rail Spur Project would benefit the local and regional economy in several ways that include the following:

    - Direct Expenditures for Project Construction - The project would involve a capital investment of approximately $40,000,000 – $60,000,000 dollars at the refinery in equipment and materials. This would include direct purchases of equipment and materials, and payments to construction contractors that cover equipment, materials, and other costs. This estimate does not include construction labor payroll.

    - Increased Employment - At its peak, construction of the project would create up to 200 jobs for construction workers. Given current employment patterns in the County, it is expected that a large majority (up to 90%) of the construction workers would come from the local work force. Accordingly, it is likely that a large portion of the construction payroll will be spent in the local economy. Project operations would create 8 to 12 new permanent, full-time jobs. These new jobs would increase the payroll beyond the current level of approximately $44,299,000, with a corresponding increase in employee expenditures in the local economy.

    - Added Tax Revenue - Following completion of construction, the County would likely reassess the value of the refinery for property tax purposes. Following reassessment, it is expected that the refinery's annual property taxes would increase. Other state and local taxes likewise would increase.

2. **The Rail Spur Project would enhance the economic viability of the refinery** - Currently, Phillips 66 faces challenges with respect to crude supply for the refinery. Phillips 66 does not itself produce crude oil and must purchase all crude from third parties. The refinery accesses crude that can be delivered via their local pipeline network or via truck. In addition, recently, the All American Pipeline that is used to deliver crude oil produced offshore in or adjacent to Santa Barbara County was shut down, and the pipeline operator is in the process of determining a date when the pipeline could return to operation. Loss of this

pipeline severed the refinery from crude oil produced offshore in or adjacent to Santa Barbara County.

The Rail Spur Project would enhance the competitiveness and vitality of the refinery by increasing the refinery's access to crude markets across North America that are available by rail. By enhancing the refinery's competitiveness, the Rail Spur Project would help to sustain the economic benefits that the refinery contributes to the local economy.

When the refinery was built, it was owned by Union Oil Company of California. Most of the local crude production also was owned by Union Oil, so a single pipeline system was sufficient to deliver all of the crude oil needed to feed the refinery. However, Phillips 66 (the current refinery owner) does not produce crude oil and must purchase crude oil for the refinery from others. This change in relationship between the refinery and the sources of crude oil limits Phillips 66's ability to source competitively-priced crude oil. (EIR at 2-37 to 2-38.)

In addition, the ability of the refinery to receive more distant crude by a variety of modes of transportation is an important factor in being able to negotiate long-term contracts at competitive prices for both local and other North American crudes, thereby increasing the stability of the refinery. A relatively isolated refinery (due to current limited transportation options) such as the Santa Maria Refinery, faces challenges in establishing long-term contracts for crude oil at competitive prices, which can cause swings in refining margins. These swings in the refinery's profitability can affect employment numbers at the refinery, which would, correspondingly, reduce local purchases made by refinery workers, which affects sales tax revenue for the County~~es paid~~, and other direct and indirect payments and contributions to the County and the community. Thus, the County would benefit by greater stability in refinery operations which would be facilitated by approval of this project because of the enhancement of ~~transportation options~~crude delivery options for the refinery. –The Project would improve the future prospects for stability at the refinery by enabling it to access competitively-priced crude oil produced across North America that is available by rail.

The San Luis Obispo County Planning Commission hereby determines that the specific overriding benefits of the proposed project described above outweigh the significant, unavoidable adverse effects on the environment, and that the significant, unavoidable adverse effects are therefore acceptable based on the overriding considerations listed above.

The above benefits and considerations outweigh the significant and unavoidable adverse environmental impacts, and such benefits override, outweigh, and make "acceptable" any remaining unavoidable environmental impacts of the project (CEQA Guidelines Section 15092(b)). All of these benefits and considerations are based on the facts set forth in the findings, the Final EIR, and the record of proceedings for the Project. Each of these benefits and considerations is a separate and independent basis that justifies approval of the Project, so that if a court were to set aside the determination that any particular benefit or consideration will occur and justifies Project approval, this Planning Commission determines that it would stand by its determination that the remaining benefit(s) or consideration(s) is or are sufficient to warrant Project approval.

5.0 FEDERAL PREEMPTION OF MAINLINE RAIL MITIGATION MEASURES

The federal government has historically, and heavily, regulated rail transportation in the U.S., beginning with the Interstate Commerce Act of 1887. In 1995, Congress enacted the Interstate Commerce Commission Termination Act (ICCTA), which replaced the Interstate Commerce Commission with the Surface Transportation Board. The ICCTA also included a broad statement of preemption of state and local regulation of rail transportation. In essence, this means that the federal government through the Surface Transportation Board has preempted local authority over all transportation by rail carrier and therefore the County is unable to require local regulation of such rail transportation:

As outlined in the ICCTA the jurisdiction of the [Surface Transportation] Board includes:

1. transportation by rail carriers, and the remedies provided in this part with respect to rates, classifications, rules (including car service, interchange, and other operating rules), practices, routes, services and facilities of such carriers; and

2. the construction, acquisition, operation, abandonment, or discontinuance of spur, industrial, team, switching, or side tracks, or facilities, even if the tracks are located, or intended to be located, entirely in one State, is exclusive. Except as otherwise provided in this part, the remedies provided under this part with respect to regulation of rail transportation are exclusive and preempt the remedies provided under Federal or State law.

This law preempts state and local regulation "that may reasonably be said to have the effect of managing or governing rail transportation, while permitting the continued application of laws of general application having a more remote or incidental effect on rail transportation." (*People v. Burlington Northern Santa Fe Railroad* (2012) 209 Cal.App.4th 1513, 1528.). A project falling under the Surface Transportation Board's jurisdiction is not subject to CEQA or to local regulation, except for ministerial permits and generally applicable codes protecting the public health and safety such as electrical, plumbing, and fire codes. Other federal laws such as the Hazardous Materials Transportation Act, Federal Railroad Safety Act, the Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations, etc., also likely preempt the ability of the County to impose mitigation measures on various aspects of crude by rail operations.

The Applicant has asserted that the ICCTA preempts the County from subjecting the rail component of the proposed project to CEQA review and from mitigating any of the potential impacts identified from project-related mainline activities. UPRR has generally concurred, pointing to cases where courts have found that local conditions imposed on permits unreasonably burdened rail carriage and were therefore preempted.

Opponents of this and other recently proposed rail-related projects state the regulatory authority granted by the ICCTA is not limitless, does not preempt CEQA, that CEQA is an information statute which does not interfere with interstate commerce, and that CEQA requires that all significant impacts of a project be mitigated if reasonably feasible.

In the case of this Project, it is clear that for activities performed within the Santa Maria Refinery (SMR) site the County is not preempted by federal law since these activities would not occur on

UPRR property, would not involve infrastructure or trains operated by UPRR, and could not reasonably be characterized as managing or governing rail transportation. However, federal law would likely limit the ability of the County to regulate the type and design of locomotives since they are owned and operated by UPRR to transport goods throughout the nation and because regulation of the types of locomotives that could be used for this project would likely interfere with interstate commerce. The impacts of the activities that occur on the Project Site are described and evaluated in the FEIR, and the County as CEQA Lead Agency has the authority to impose mitigation measures or conditions of approval to reduce potential impacts within the boundaries of the SMR.

As lead agency, the County determined that it would analyze potential project-related impacts that may occur along UPRR's mainline in order to meet the information disclosure requirements of CEQA and to fully inform County decision-makers of the consequences of their decisions. While the FEIR describes these potential impacts of project-related train movements along the UPRR mainline throughout the state, the County Department of Planning and Building, based on input from legal counsel, understands the County as CEQA Lead Agency is likely preempted from imposing mitigation measures disclosed in the FEIR on UPRR equipment and train movements statewide on the mainline. This information was included in the FEIR to ensure full disclosure of impacts and mitigations. Exhibit B-2 of the staff report lists the mitigation measures that are preempted by federal law.

Since the County is likely preempted from imposing the mitigation measures for the significant impacts associated with project-related train movements along the UPRR mainline throughout the state, these impacts have been determined to be significant and unavoidable impacts as part of the CEQA findings.

6.0 CLASSIFICATION OF ENVIRONMENTAL IMPACTS

The FEIR classified the environmental impacts in to four categories, which are described below.

- **Class I.** Class I impacts are significant and unavoidable. To approve a project resulting in Class I impacts, the CEQA Guidelines require decision makers to make findings of overriding consideration that "... specific legal, technological, economic, social, or other considerations make infeasible the mitigation measures or alternatives identified in the EIR..."

- **Class II.** Class II impacts are significant but can be mitigated to a level of insignificance by measures identified in this EIR and the project description. When approving a project with Class II impacts, the decision-makers must make findings that changes or alternatives to the project have been incorporated that reduce the impacts to a less than significant level.

- **Class III.** Class III impacts are adverse but not significant.

- **Class IV.** Beneficial impacts.

7.0 FINDING FOR IMPACTS IDENTIFIED AS BENEFICIAL

Class IV impacts are impacts that are beneficial. Beneficial impacts are ones that result in a net environmental benefit as of a result of the proposed project. The EIR did not identify any Class IV impacts of the project.

8.0 FINDINGS FOR IMPACTS IDENTIFIED AS LESS THAN SIGNIFICANT

The findings below are for Class III impacts. Class III impacts are impacts that are adverse, but not significant. Pursuant to Section 15091(a)(1) of the State CEQA Guidelines, the Planning Commission finds that each of the following effects associated with the project have been avoided or will have a less than significant impact, as identified in the Final EIR. The less than significant effects (Impacts) are stated fully in the Final EIR. The following are brief explanations of the rationale for this finding for each impact:

8.1 AGRICULTURAL (CLASS III)

AR Impact 2 (AR.2) - Loss of Farmland	
The Rail Spur Project would result in the permanent conversion of approximately 22.3 acres of Farmland of Statewide Importance	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The SMR has historically had low intensity agricultural use (grazing), and the Rail Spur Project would allow for continued low intensity agricultural use on non-project areas, and would therefore not produce significant impacts.
Supportive Evidence	The site has not historically been grazed near the allowable capacity for industrial parcels, and the intensity of existing grazing activities (0 to 30 head) could easily be continued on remaining undeveloped areas of the Project Site. Because the proposed operations are similar to existing industrial operations at the refinery, no additional land use incompatibility issues are expected to result from the Rail Spur Project that would significantly affect grazing activities. Therefore, no significant impacts to existing grazing activities would occur.

8.2 BIOLOGICAL RESOURCES (CLASS III)

BIO Impact 10 (BIO.10) - Monarch Butterfly Impacts	
Long term air quality impacts could result in impacts to known overwintering monarch butterfly habitat located approximately one-mile east of the Rail Spur Project.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	Rail Spur Project impacts from the mainline rail activities related operational rail traffic and construction would not impact monarch butterflies at nearby areas.
Supportive Evidence	Because of the unknown effects of pollutants on the monarch species, impacts to this species have been inferred based existing conditions elsewhere along the UPRR route where diesel and particulates likely exceed the levels that are expected with construction and operations of

BIO Impact 10 (BIO.10) - Monarch Butterfly Impacts	
	the Rail Spur Project. For comparison purposes, the UPRR railroad is directly located adjacent to overwintering habitat located at the Pismo Preserve and at overwintering locations near Carpentaria. Given the level of short-term air and noise pollutants associated with operational activities along this route due to commuter rail traffic and cargo traffic, it is reasonable to assume that this short-term activity would expose monarchs to a higher level of pollutants than the long-term operation of the Rail Spur Project. Considering the long-term continued success of the overwintering populations at these locations given their proximity to pollutants from the UPPR mainline and the existing vehicle traffic adjacent to their locations, it is inferred that the potential impacts due to construction and operational activities of the Rail Spur Project would be less than significant.

BIO Impact 12 (BIO.12) - Mainline Wildlife Impacts	
Crude oil transportation along the UPRR mainline could result impacts to wildlife in the vicinity of the mainline.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	Rail Spur Project impacts along the mainline rail related to operational rail traffic would not impact wildlife along the mainline routes.
Supportive Evidence	The Rail Spur Project would use existing mainline rail routes that have been in service for long periods of time and carry substantial levels of existing freight and passenger train traffic. The addition of three trains per week (six one-way trips per week, as amended) to these existing mainline routes would not be expected to substantially increase the incident of wildlife collisions since there would be a relatively small increase in hourly average train traffic. Given that the trains would use existing mainline routes, the relatively small increase in train traffic that would result from the project and the low estimated probabilities of collisions with wildlife, the impact of train-wildlife collisions on the mainline would be considered less than significant.

8.3 GEOLOGICAL RESOURCES (CLASS III)

GEO Impact 4 (GEO.4) - Precluded Mineral Resources Extraction	
The Project could potentially preclude the future extraction of valuable mineral resources.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Rail Spur Project would not preclude the future extraction of valuable mineral resources.
Supportive Evidence	The Project Site is within an area classified as MRZ-3 by the California Geological Survey, which contain known or inferred mineral occurrences of undetermined mineral resource significance. Only Portland cement concrete (PCC)-grade criteria were considered in classifying MRZ-3 areas. MRZ-2 areas, which are areas with a high likelihood for the occurrence of significant mineral resources, have been mapped by the California Geological Survey in combination with areas having current land uses deemed compatible with potential mining. The closest such area to the Project Site is located approximately 0.6 mile southeast of the Project Site. Similarly, the Project Site is not located in an EX or EX-1 area, designated as aggregate production areas, as designated by the County of San Luis Obispo. The closest EX area is

GEO Impact 4 (GEO.4) - Precluded Mineral Resources Extraction	
	located approximately three miles southwest and six miles southeast of the Project Site, respectively, along the Santa Maria River. As a result, the Project would not preclude the future extraction of valuable mineral resources and impacts are considered less than significant.

8.4 HAZARDS AND HAZARDOUS MATERIALS (CLASS III)

HM Impact 1 (HM.1) - Spills and Fires at the SMR	
The proposed rail spur unloading facility would increase the risk of an oil spill, fires and explosions at the refinery and on the project site that could impact the public.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	Rail Spur Project releases of crude oil from unloading equipment at the SMR would not produce public risks.
Supportive Evidence	Implementation of the project could result in spills at the Project Site due to mechanical failure, structural failure, corrosion, or human error during pipeline use and oil transportation to and from the Rail Spur. Given the low speed the trains would be moving at the site (3 mph) it is unlikely that a tank car could be impacted enough to result in a spill. The most likely spill related event would be a release during the unloading process due to a loading line failure. The unloading racks are equipped with oil spill drain boxes which would feed below-grade 16-inch-diameter drain lines routed to three parallel 20,000 gallon rectangular storage tanks located in a vault for containment. The total capacity of the containment system would be about 273,000 gallons (this includes the drain boxes, curbed area, pipelines and storage tanks). The containment system has been designed to move any spilled oil away from the rail cars and into the 60,000 gallon storage tanks. The loss of a loading hose could result in a maximum spill of about 27,300 gallons of crude oil (the capacity of one rail car). This system would effectively control spills that would from the loading operations. The loading area would also be equipped with a fire protection system that would consist of fire detection equipment hydrants, controls and piping. Downstream of the two unloading facility meter assemblies, a new 24-inch above ground pipeline would be routed along an existing internal dirt road on the Phillips 66 property between the unloading facility and the refinery. This pipeline would connect with the existing refinery crude oil storage tanks. Several crude oil spill scenarios were modeled to evaluate worst-case thermal radiation hazards associated with a large crude oil fire. Modeled scenarios ranged from small releases from a tank car, full release of rail car contents, and full release of the pipeline volume. None of these flammable hazard zones have the potential for offsite impacts associated with the worst-case unloading facility crude oil spill and fire. Since the worst case hazard zones are within the SMR boundaries, no sensitive receptors would be impacted. Therefore, potential hazards associated with the unloading facility are considered less than significant since the worst case hazard zones do not extend outside of the boundaries of the SMR.

HM Impact 3 (HM.3) - Change in Crude Slate Hazards	
A change in crude slate from rail deliveries could increase hazards at the refinery that would impact the public.	
Mitigation	No mitigation measures are required since the impact is less than significant.

HM Impact 3 (HM.3) - Change in Crude Slate Hazards	
Findings	A change in the crude slate due to the Rail Spur Project would not be expected to increase corrosion or operational hazards at the SMR.
Supportive Evidence	The SMR is designed to handle heavy sour crude, to only partially refine crude oil to extract intermediates and gases, and uses the heavier crude oil components to produce petroleum coke. For the SMR, key crude slate parameters that could impact hazards and potential releases at the refinery have to do with the corrosivity of the crude oil. This type of corrosion is referred to as naphthenic acid corrosion (NAC). Because of the lack of available naphthenic acid concentration data for crude oil, the petroleum industry uses a measurement known as the total acid number (TAN) to qualitatively measure the potential for an oil to produce such corrosion problems. High sulfur levels can lead to sulfide related corrosion. SMR currently processes sour, heavy crudes with elevated levels of sulfur and organic acids. The SMR follow the guidelines laid out in the American Petroleum Institute Recommended Practice "Guidelines for Avoiding Sulfidation Corrosion Failures in Oil Refineries". Phillips 66 also has a required standard for their refineries (M-42-RS-03 "Sulfidation Service Equipment."), which the SMR is in compliance with. Both these documents provide rules and guidelines to monitor, mitigate and prevent sulfidation corrosion of process equipment. With respect to organic acid corrosion, SMR follows generally accepted industry practices and the Phillips 66 Consensus Best Practice for "Naphthenic Acid Service Equipment." This document provides guidelines and recommendations for appropriate metallurgy and wide-spread risk based inspection including inspection frequency and methods, use of corrosion inhibitors and suggestions for possible equipment locations, material types, fluid velocities and temperature ranges where naphthenic acid corrosion may be expected to occur. SMR has a comprehensive inspection and monitoring program for naphthenic acid corrosion and has made numerous metallurgical upgrades of piping and equipment in response to program findings. The expected range of sulfur and TAN would be within the range of the crudes that are currently being processed at the SMR. Therefore, the change in crude slate would not be expected to change the sulfur or TAN levels compared to the crude sources that are currently being processed at the SMR. It is possible that the TAN could increase when compared to the typical crude blend. However, with the programs and management systems, discussed above, in place, this potential increase would not be expected to increase the hazards or likelihood of a release at the SMR. Therefore, the impact would be less than significant.

8.5 LAND USE AND RECREATION (CLASS III)

REC Impact 1 (REC.1) - Increase Demand for Recreational Opportunities	
The Rail Spur Project would increase use or demand for parks and recreational opportunities.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Rail Spur Project is not expected to induce population growth or increase demand on recreational resources in the project vicinity.
Supportive Evidence	The Rail Spur Project would expand and/or modify existing industrial uses at the Project Site and is not expected to induce population growth or increase demand on recreational resources in the project vicinity. No increase in demand for parks and recreational opportunities would result from use of the UPRR mainline rail routes for transporting crude oil to the SMR, as this would not constitute a change in use from existing UPRR operations. The project would, however, generate the need for as many as 200 temporary construction workers and 12 permanent operational employees to construct and operate the new facilities.

REC Impact 1 (REC.1) - Increase Demand for Recreational Opportunities	
	Phillips 66 anticipates that most or all of these employees would come from the local workforce (up to 90%). This increase would not cause a significant permanent increase in population or demand on local recreational resources. Any marginal increase in demand resulting from employment demands associated with development of the project could be easily met with existing recreational parks and recreation facilities in the project vicinity. Therefore, impacts would be less than significant.

REC Impact 2 (REC.2) - Access to Recreational Opportunities	
The Rail Spur Project would affect access to existing trails, parks or recreational opportunities.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Rail Spur Project would not create long term impact to trails, parks or other recreational opportunities due to visual impacts or oil spills.
Supportive Evidence	The Rail Spur Project would be predominantly located within an area designated for industrial use, which currently supports the Santa Maria Refinery and grazing activities outside of the active refinery area, as well as a small section of Agricultural designated land in the southeast portion of the Project Site where the emergency vehicle access is proposed. There are no trails, parks or other recreational opportunities within the Project Site other than the historic Anza corridor, which is not supported by any physical recreational facilities or uses within the Project Site. The Anza Trail staff of the National Park Service (NPS) concluded that the proposed modification of the existing refinery operation would not result in any impacts to Anza Trail resources, including historic resources and existing or planned recreational resources. Views of the Rail Spur Project from the Anza recreational trail would be generally precluded by intervening topography and development. Mitigation proposed in the EIR to minimize potential effects through construction of an earthen berm designed to appear as a natural dune landform consistent with surrounding undeveloped areas would reduce any visual impacts on the Anza Trail resources (refer to mitigation measure AV-1a). Therefore, impacts on recreational facilities due to visual or impacts on a trail, park or other recreational opportunity would be less than significant. The northern and southern UPRR mainline track from the SMR to the California border, would pass in close proximity to a number of recreational areas. Although it is unlikely, derailment of a train could result in the release of crude oil from rail tanker cars, which could affect a recreational area. This could prevent public access to these areas during the cleanup process. Depending upon the location and extent of the spill, the cleanup effort could take anywhere from a few days to months. During this period, public access to the affected recreational area could be limited, but would be temporary. Given the low probability of a spill impacting recreational areas and that access to a recreational area would be temporary, the impact would be considered less than significant.

8.6 NOISE AND VIBRATION (CLASS III)

N Impact 3 (N.3) - Mainline Noise	
Operational activities along the UPRR mainline tracks would generate transportation related noise levels.	
Mitigation	No mitigation measures are required since the impact is less than significant.

N Impact 3 (N.3) - Mainline Noise	
Findings	The Rail Spur Project operational increases in noise levels along the mainline would be less than the San Luis Obispo thresholds.
Supportive Evidence	Noise from locomotive engines and from trains during mainline transportation while traveling along the mainline were estimated using the FTA computational algorithms to estimate noise levels. With the addition of the Rail Spur Project crude oil trains, the CNEL noise level would increase by about 0.5 to 2.5 dBA. The higher increases would be for areas that have less existing train traffic, with the lower increases for areas that have higher levels of existing train traffic. In the Bay Area, Sacramento, and Los Angeles Basin where there are in excess of 20 freight and passenger trains per day, the increase in CNEL from two additional crude oil unit trains per day would be about 0.5 dBA. For all other areas along the mainline within California, an increase of between 1.0 and 2.5 dBA CNEL would be expected. These increases are less than the thresholds and would therefore be less than significant.

N Impact 4 (N.4) - Operational Vibrations	
Operational activities could produce vibration levels that exceed San Luis Obispo thresholds.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	Vibration levels from operational activities would not produce vibration levels that exceed San Luis Obispo thresholds
Supportive Evidence	Vibration from locomotive engines and from train cars during mainline transportation or from unloading operations at the site would produce vibrations. Train vibrations are a function of train type, locomotive type, track arrangement and configuration and of the soil types between the train tracks and the receptor. Although the perceptibility threshold for vibration is about 0.002 inches/sec, human response to vibration is not usually significant unless the vibration exceeds 0.003 inches/sec. Because of the heavy locomotives on diesel rail systems, the vibration levels can exceed the 0.01 inches/sec threshold defined in the EIR. The FTA has established a 0.004 inches/sec as an acceptable threshold. The FTA screening assessment for residential locations indicates that residences should be located more than 200 feet from a railway with diesel locomotives traveling at 50 mph. For the rail spur area located within the SMR, locomotive speeds would be substantially below this and distances to receptors would be substantially more than 200 feet. Therefore, vibration impacts from the rail spur operations would be less than significant. The addition of one train per day along the mainline would increase the frequency of trains passing by residential and other areas, but would not increase the peak vibration levels along the railway as freight trains already pass along the mainline track. Therefore, impacts from vibration would be less than significant.

8.7 POPULATION AND HOUSING (CLASS III)

P/H Impact 1 (P/H.1) - Population Growth	
The Project could induce substantial population growth in the area.	
Mitigation	No mitigation measures are required since the impact is less than significant.

P/H Impact 1 (P/H.1) - Population Growth	
Findings	The Project would not induce substantial population growth in the area.
Supportive Evidence	The project does not propose any use that would directly or indirectly induce population growth, such as the development of new housing units or recreational, commercial or retail uses that may stimulate population growth in the area. The project would not remove any existing obstacles to growth, such as water availability in the Nipomo Mesa area, and does not propose any expansions to existing infrastructure other than those necessary to serve the proposed unloading facility and related project components. The proposed transport of crude would not induce population growth in any area along the UPRR mainline route since the train would just pass though the areas to and from the SMR. Potential impacts would be less than significant.

P/H Impact 2 (P/H.2) - Displacement of People due to Hazardous Materials Transportation	
The project would increase the transfer of hazardous substances through residential areas, potentially resulting in the indirect displacement of people.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Project would not result in the indirect displacement of people.
Supportive Evidence	The Project Site consists of an existing oil refining facility and undeveloped adjacent areas currently used for grazing. No residential uses or structures are located on the Project Site and development of the Rail Spur Project would not directly displace any existing housing or people or require the development of replacement housing elsewhere. All crude oil is currently brought to the Project Site by pipeline, whereas the Rail Spur Project would enable crude delivery of up to three trains per week, or approximately 150 annual deliveries as amended, via the proposed rail spur extension. The ability to transfer crude oil by rail would increase exposure to potentially hazardous substances in residential areas adjacent to the UPRR mainline routes. However, development of the project is not expected to result in the displacement of people located along the proposed UPRR mainline routes. The transfer of crude oil by rail to the refinery does not significantly differ from existing uses of the rail line, including the refinery's existing use of the rail to deliver solid petroleum coke products from the Project Site. The U.S. Department of Transportation Federal Railroad Administration administers a comprehensive set of safety standards for rail operations in the U.S., particularly those involving the transport of hazardous materials, to minimize the potential for dangerous incidents. Therefore, development of the project is not expected to cause significant displacement of people along the proposed UPRR mainline routes. Potential impacts would be less than significant.

P/H Impact 3 (P/H.3) - Need for New Housing	
The project would generate temporary and permanent employment needs, which could result in the need for new housing in the project vicinity.	
Mitigation	No mitigation measures are required since the impact is less than significant.

P/H Impact 3 (P/H.3) - Need for New Housing	
Findings	The Project would not result in the need for new housing in the project vicinity.
Supportive Evidence	Construction of the project would require up to 200 workers during the peak of construction activities, while less intensive construction activities would require as few as eight employees. Construction workers are expected to consist of Phillips 66 construction contractors. After construction, the number of additional permanent employees required to operate the proposed rail spur and offloading facility would vary based on the frequency and timing of train deliveries, but is expected to be no more than 12 at any given time. At this time, the residential location of potential future employees is unknown. However, Phillips 66 expects that a large majority (up to 90%) of the workers would come from the local work force and would not generate the need for any new housing in the area. Construction activities would be short-term, with total construction estimated to occur over a nine to 10 month period and peak activities (necessitating up to 200 workers) limited to four to six months in time. Certain construction activities may require the utilization of some non-local workers with specialized skills. Nipomo, Arroyo Grande, and the surrounding areas have a variety of hotels and motels that would be adequate to serve short-term housing needs of any non-local construction contractors. Permanent employment demands that would result from the project are expected to be filled almost entirely from the local workforce. However, in the event non-local workers move to the area to fill the project's operational needs, 2010 Census data indicates that there is sufficient existing housing stock available in the project area to accommodate the potential increase and no new housing would be necessary. Based on the short construction schedule, anticipated utilization of the local work force and limited increase in permanent employment positions, potential impacts would be less than significant.

8.8 PUBLIC SERVICES AND UTILITIES (CLASS III)

PS Impact 1 (PS.1) - Solid Waste Disposal	
The Rail Spur Project would generate solid waste requiring disposal at landfills.	
Mitigation	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;

PS Impact 1 (PS.1) - Solid Waste Disposal	
	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.
Findings	The Project would not produce solid waste that exceed the landfill capacities.
Supportive Evidence	Waste from the construction activities would include waste generated by the workers as well as general construction waste. The EIR 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. The EIR 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.

PS Impact 2 (PS.2) - Electricity Supplies	
The Rail Spur Project would potentially impact electricity supplies.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Project would not impact electricity supplies.
Supportive Evidence	The Rail Spur Project would use a peak of about 1,000 kW, with the average consumption being about 900 kW. Assuming 150 trains per year and eight hours per train unloading, the amount of electrical use by the Rail Spur Project would be about 960 MW-hrs for the unloading operations. Electrical requirements at the SMR are met by an onsite cogeneration unit that produces both steam and electricity, and via purchases from Pacific Gas and Electric Company (PG&E). The Applicant indicates that the amount of electricity purchased would continue to decrease with increased crude oil throughputs due to the increased availability of onsite electrical generation. 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 as a worst case 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.

PS Impact 5 (PS.5) - Increase Police Services	
The Rail Spur Project would increase demand for police services at the SMR.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Project would not increase demand for police services at the SMR.
Supportive Evidence	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.

8.9 TRANSPORTATION AND CIRCULATION (CLASS III)

TR Impact 2 (TR.2) - Operations Traffic	
Traffic associated with operation of the Rail Spur Project could impact traffic on roadways in the Project vicinity due to increased traffic.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Project would not increase traffic on the roadways beyond the thresholds.
Supportive Evidence	Project operations would generate additional traffic due to the additional employees required to unload and manage the trains. Up to 12 additional employees would be needed to handle the unloading of a unit train at the SMR. It is also possible that the change in crude slate at the refinery would result in one additional sulfur truck trip per day. The AADT for the project roads ranges from about 3,200 to 56,000 as shown in the EIR. The addition of 26 daily one-way trips associated with the 12 employees and a sulfur truck would not result in any of these roadways exceeding their capacity numbers. Therefore, operational traffic would be less than significant.

TR Impact 3 (TR.3) - Mainline At-Grade Traffic Delays	
Crude oil trains servicing the SMR could cause traffic delays in the vicinity of at-grade crossing.	
Mitigation	No mitigation measures are required since the impact is less than significant.

TR Impact 3 (TR.3) - Mainline At-Grade Traffic Delays	
Findings	The Project would not cause significant traffic delays in the vicinity of at-grade crossing.
Supportive Evidence	The Rail Spur Project would involve up to three unit trains per week being delivered to the SMR via the Union Pacific Coast Line. Once a train arrives at the SMR it is expected to be onsite for about 12 hours. This means that the peak train travel associated with the Rail Spur Project would be one round trip per day. The unit trains that would be delivered to the SMR would be approximately 5,190 feet long and be comprised of 80 tanker cars, two buffer cars, and three locomotives. The amount of delay at any give intersection would be based upon the speed of the train, with delays as long as 6.5 minutes for a train traveling 10 mph to 1.3 minutes for a train traveling 50 mph. Depending upon the location of the at-grade crossing and the time the crude oil train made the crossing it could affect delay times at an intersection. The greatest chance for this would be if a train crossed the at-grade crossing during the AM or PM peak hours. Under normal operations, only one train would cross an at-grade crossing during the AM and PM peak hours, it would not affect the average delay time for the intersection over the peak three hour period. In addition, there would only be about an eight percent chance that a train would cross an intersection during the AM or PM peak hours for three trains per week assuming an equal probability of a train being present for all hours of the day. Therefore, the impacts of a crude oil train impacting traffic delays in the vicinity of an at-grade crossing would be less than significant.

TR Impact 4 (TR.4) - Mainline Trains and Public Transit Facilities	
Increased rail traffic on Union Pacific main rail lines could impact the performance of the public rail transit facilities.	
Mitigation	TR-4 The Applicant shall work with UPRR to schedule unit trains serving the Santa Maria Refinery so that they do not interfere with passenger trains traveling the Coast Rail Route.
Findings	The Project would not impact the performance of the public rail transit facilities.
Supportive Evidence	Trains would arrive from different oilfields and/or crude oil loading points depending on market availability. The exact location of the source of crude oil that would be delivered to the refinery is unknown and could change over time based upon market conditions and availability. Union Pacific Railroad (UPRR) would be responsible for delivering the trains to the SMR. Trains could enter California from 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). The EIR used an approach to assess impacts to passenger trains performance based upon available on-time performance and delay data for the various passenger trains that could be affected by the proposed project. In addition, Caltrans has conducted dynamic simulation modeling along portions of the coastal route that provides some insight into what could be the impacts of adding an additional one unit train per day to this portion of the mainline track. In some areas, UPRR has two tracks available one that is primarily used for freight and one used for passenger trains. Therefore, interference with passenger trains along this portion of the route should not be an issue. Another factor that would limit the impact of the crude oil train on passenger OTP is that freight trains are usually not operated according to a particular schedule, and can be slotted-in between scheduled passenger trains where capacity exists so as to not impede passenger train movements In the Bay Area, for example, UPRR has demonstrated the ability to regularly meet passenger

TR Impact 4 (TR.4) - Mainline Trains and Public Transit Facilities	
	train schedules. The passenger trains dispatched by UPRR are on time over 90% of the time. One can assume that UPRR will have little difficulty scheduling one additional crude oil train, given their success with the on-time performance for the passenger trains that operate on their tracks. For the northern route, the EIR analysis shows that the addition of one crude oil unit train to a track system that is currently handling between 26 and 75 trains per day, and has OTP values that are above 90% would not likely result in a significant effect on passenger trains operating in the Bay Area north of San Jose. The Caltrans conducted dynamic simulation modeling of rail traffic along the coast line from San Jose to San Luis Obispo which showed that the addition of two freight trains per day would not affect the on time performance of the Coast passenger trains. For the southern routes, the EIR analysis also indicated that the UPRR mainline track is not the major cause of delay for the passenger trains and would support the conclusion that the addition of a crude oil train traveling to the SMR from the south would not impact the end point on time performance of the coastal passenger trains. From Moorpark to the Colton rail yard, there is currently additional capacity for freight trains and therefore impacts on passenger trains would be minimal. Impacts would therefore be less than significant.

8.10 WATER RESOURCES(CLASS III)

WR Impact 4 (WR.4) - Stormwater Runoff	
Project operations would result in an increase in the amount of stormwater runoff at the site.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Project would not cause of stormwater runoff impacts at the site.
Supportive Evidence	Construction of the rail car unloading facility would include construction of a 32,860 square foot canopy. In addition, 1.7 acres of roads would be paved during construction. Such features would increase the amount of impermeable surfaces, resulting in increased stormwater runoff. Left unchecked, increased runoff could cause flooding and cause soil erosion. However, a stormwater detention/percolation basin would be constructed to prevent offsite runoff of increased surface flows from proposed unloading facility canopy. This basin would have a working capacity of about 193,000 gallons, which is more than enough to handle the 100-year 24-hour storm event. Runoff would be collected in downspouts constructed around the perimeter of the canopy and then transmitted to the detention/percolation basin, where the runoff would percolate into the permeable sandy soil. Runoff from paved roads would be dispersed over the Project Site, i.e., not concentrated, and would percolate into the sandy soils. Similarly, the rail spur bed and adjoining slopes would be compacted, thus reducing infiltration and increasing runoff. However, the runoff would also be dispersed along the length of the rail spur, i.e., not concentrated, and would percolate into the sandy soils. Based on a site reconnaissance of the Project Site, erosive gullying and rilling does not occur, even in sloped, disturbed areas, void of vegetation. Therefore, it is unlikely that increased runoff associated with the Project-related paving would cause flooding or increase erosion. Impacts are considered less than significant.

WR Impact 5 (WR.5) - 100-year Flood Plain	
The Project would not involve activities within the 100-year flood plain.	
Mitigation	No mitigation measures are required since the impact is less than significant.
Findings	The Project would not involve activities within the 100-year flood plain and would therefore not cause flood plain related impacts.
Supportive Evidence	Construction would not occur within the 100 year flood plain. The proposed rail spur and unloading facility are located approximately 500 feet north of the flood plain, at the closest point. Similarly, Project operations would not involve activities within the 100-year flood plain. Therefore, impacts are considered less than significant.

WR Impact 6 (WR.6) - Availability of Groundwater	
The Project would potentially change the quantity or movement of available ground water or adversely affect a community water service provider.	
Mitigation	WR-6 If possible, the Applicant shall use recycled water for construction and operational activities to reduce impacts to local groundwater supplies. Recycled water could be generated onsite and/or secured via truck transport or water pipeline from the South San Luis Obispo County Sanitation District.
Findings	The Project would not change the quantity or movement of available ground water or would not adversely affect a community water service provider.
Supportive Evidence	Operational activities would be expected to increase water use by approximately 250 gallons per day. An average single-family dwelling on the Nipomo Mesa would use approximately 460 gallons per day (0.51 AFY) (Water Systems Consulting 2011). Therefore, as the Rail Spur Project would use less than 500 homes, the Rail Spur Project would not be considered a "Project" under SB 610 criterion and a Water Supply Assessment would not be required for the Project. Water use during construction would be vary between 1,000 and 2,000 gallons per day during the grading operations. It is estimated that for the entire construction project about 180,000 gallons of water would be used. This water would be used primarily for dust control and revegetation. The estimated water demand in the Nipomo Mesa Management Area in 2013 was about 16,349 AF (NMMA 2014), and the Rail Spur Project would only increase demand by 0.3 AFY. In combination, the SMR water use would be less than the 1,550 AFY of water available for SMR use under a count agreed Stipulation Therefore, water supply related impacts are considered less than significant.

9.0 FINDINGS FOR IMPACTS IDENTIFIED AS SIGNIFICANT BUT MITIGABLE

Pursuant to §15091(a)(1) of the CEQA Guidelines, the Planning Commission finds that, for each of the following significant effects as identified in the Final EIR, changes or alterations (mitigation measures) have been required in, or incorporated into, the project which avoid or substantially lessen each of the significant environmental effects as identified in the Final EIR.

The significant effects (impacts) and mitigation measures are stated fully in the Final EIR. The following are brief explanations of the rationale for this finding for each impact:

9.1 AESTHETICS AND VISUAL RESOURCES (CLASS II)

AV Impact 1 (AV.1) - Reduction in View Quality	
The eastern extension of the proposed rail spur and its associated trains would reduce quality views of the open space as seen from portions of State Route 1, the California Coastal Trail, the De Anza Trail, and other public areas east of State Route 1, resulting in a potentially significant impact.	
Mitigation	AV-1a Prior to issuance of grading and construction permits, the applicant shall submit a revised site-grading plan to the Department of Planning and Building for review and approval showing the following: a. An earthen berm shall be constructed around the eastern perimeter of the rail spur. The berm shall be a minimum of 10 feet tall and a maximum of 20 feet tall above the existing grade and as shown on the Berm Location Concept Map shown below (Figure 4.1-11) for the purpose of reducing views of the rail spur and trains from State Route 1 and the California Coastal Trail / De Anza Trail. b. The berm shall be designed and constructed to appear as a natural dune landform and shall have gradually undulated horizontal and vertical dimensions (consistent with Policy 5: Landform Alterations). c. No other existing landforms which would provide visual screening of the facility shall be used as source of borrow material for the required berm. d. The berm shall be revegetated with native grasses and shrubs to match the surrounding natural landcover and plant community. No disturbance shall occur outside of the identified area of disturbance shown on the site-grading plan. AV-1b Prior to issuance of grading and construction permits, the applicant shall submit a revised site-grading plan to the Department of Planning and Building for review and approval showing the following: a. All new cut and fill slopes shall include slope-rounding and landform grading techniques to avoid an engineered appearance (consistent with Policy 5: Landform Alterations). AV-1c Prior to issuance of grading and construction permits, the applicant shall submit a Habitat / Landscape Revegetation Plan to the Department of Planning and Building for review and approval showing the following: a. All new slopes shall be revegetated with native grasses and shrubs to match the surrounding natural landcover and plant community.
Findings	The installation of earthen berms, landform grading and vegetation would reduce the aesthetic impacts of the eastern extension of the proposed rail spur and its associated trains as seen from portions of State Route 1, the California Coastal Trail, the De Anza Trail, and other public areas east of State Route 1, to a less than significant impact.
Supportive Evidence	Although the entire Project parcel is zoned industrial, the eastern portion of the project site serves as scenic open space for viewpoints along State Route 1, the California Coastal Trail, the De Anza Trail, and from streets within the Trilogy development. The westernmost portion of the project is in an area of heavy industrial use and as a result has little visual sensitivity. From viewpoints to the east of the SMR, the existing refinery can be seen, although intervening topography and distance limit views of much of the ground-level operations. Where visible, the existing refinery dominates views to the northwest and creates a strong industrial visual identity.

AV Impact 1 (AV.1) - Reduction in View Quality	
	The view looking west and southwest from State Route 1 is considered a scenic vista because of the panoramic composition of natural and agricultural land use patterns, sweeping views of the dunes and the coastline, and the Pacific Ocean beyond. The Rail Spur Project elements, where visible, would not block views of coastal visual resources such as the dunes, the ocean, riparian areas, or agriculture. The eastern extension of the rail spur and its associated trains would however reduce views of the open space seen in the mid-ground, an important visual contributor to the overall scenic vista, which has the potential to be a significant impact. The proposed unpaved access road from the rail spur to State Route 1 would appear as a typical farm road and would not affect scenic views. As seen from viewpoints south of the project such as Oso Flaco Road, views toward the project site are more dominated by agriculture in the foreground, with the Nipomo Mesa and inland hills rising up as a backdrop. Scenic vistas from these viewpoints are defined by the agricultural and natural land uses in the foreground, with the hills framing the background to the northeast. Because of the viewing distance and orientation, the Rail Spur Project elements would not block views of any of these coastal resources, and as a result would not have an adverse effect of scenic vistas as seen from Oso Flaco Road. Amtrak passenger trains would also have direct views of the project site, passing immediately adjacent to the existing refinery and coke processing facility. From these elevated viewpoints, scenic vistas include the varied natural and man-made land use patterns, the dunes, agriculture, open space and the surrounding hillsides. The proposed unloading facility would be seen as part of the existing industrial area and would have no effect on scenic vistas. By reducing visibility of the rail spur and associated trains in the current open space area, mitigation measures AV-1a through AV-1c would lessen the project's adverse effects on scenic vistas as seen from key public viewpoints on State Route 1, the California Coastal Trail, the De Anza Trail, and other public areas east of State Route 1. As a result, these measures would result in visual impacts considered to be less than significant.

AV Impact 2 (AV.2) - Effects on Views and SLOC Policy Goals	
The expanded industrial use and visibility of the rail spur and associated trains on the existing open space would cause the project to be more noticeable as seen from public viewpoints on State Route 1, the California Coastal Trail, the De Anza Trail, and other public areas east of State Route 1. This effect on the existing visual character would be inconsistent with the County of San Luis Obispo visual policy goals, resulting in a potentially significant impact.	
Mitigation	AV-2 Implementation of mitigation measures AV-1a through AV-1c required for Impact AV.1 would also reduce potential impacts to existing visual character and quality of the site and its surroundings.
Findings	The installation of earthen berms, landform grading and vegetation would reduce the aesthetic impacts of the rail spur and would be consistent with the County of San Luis Obispo visual policy goals.
Supportive Evidence	As seen from State Route 1, the Coastal Trail, the De Anza Trail and other eastern viewpoints, the rail spur and associated rail cars would represent a visual expansion of the adjacent industrial refinery use. This expansion of industrial elements would not be entirely unexpected at this location, however the current balance of visual character elements would be altered. The visual encroachment of the industrial refinery-related activities onto the adjacent visual open space would have an adverse effect on the existing character of the site, and would represent a potentially significant impact. By implementing mitigation measures AV-1a through AV-1c the impacts to the visual character and quality of the site and surroundings would be considered less than significant with mitigation. The required mitigation measures would cause the project to be less

	noticeable in the landscape, and as a result the perceived encroachment of industrial character into the current open space would be less evident.

AV Impact 3 (AV.3) - Light and Glare from SMR	
The project would create a new source of substantial light and glare which would adversely affect nighttime views in the area.	
Mitigation	AV-3a Prior to issuance of grading and construction permits, the applicant shall submit a comprehensive lighting plan to the Department of Planning and Building for review and approval showing the following: a. The Lighting Plan shall be based on a photometric study prepared by a qualified engineer who is an active member of the Illuminating Engineering Society of North America (IESNA). b. The Lighting Plan shall be prepared by a qualified engineer who is an active member of the IESNA using guidance and best practices endorsed by the International Dark Sky Association. c. The applicant shall provide the specific technical data and performance criteria required by the applicable safety policy used as the basis for the Lighting Plan. d. As part of the Lighting Plan, illumination levels shall be the minimum required by the specifically defined public safety policy and ordinances. e. As part of the Lighting Plan, direct views of all lighting sources shall be directed downward and shielded from view from public roads. f. As part of the Lighting Plan, lights shall be designed and constructed to reduce illumination of the adjacent slopes and dunes where applicable. g. As part of the Lighting Plan, no lights shall be placed east of any portion of the screening berm required in mitigation measure AV-1a. h. As part of the Lighting Plan, lighting for all rail spur perimeter fencing shall be equipped with motion sensors for activation rather than left on continuously. AV-3b Within six months following completion of construction, a Lighting Evaluation Report shall be submitted to the Department of Planning and Building for review and approval. The purpose of the Lighting Evaluation Report shall be to assess and correct any unexpected or residual lighting impacts following project completion. The report shall be prepared by a by a qualified engineer who is an active member of the IESNA who was not associated with the preparation of the Lighting Plan described in mitigation measure AV-3a. Preparation of the Lighting Evaluation Report shall be by a qualified engineer retained by the County of San Luis Obispo and funded by the project applicant. The Lighting Evaluation Report shall include the following at a minimum: a. A comprehensive assessment of the lighting resulting from the rail spur project and project operations as seen from State Route 1, Oso Flaco Road, the California Coastal Trail, De Anza Trail and public viewing areas to the east. The Lighting Evaluation Report shall assess the completed project during a variety of operational conditions including all typical procedures such as unloading, moving of trains, multiple trains present, etc. The Report shall evaluate and identify where, if any unexpected light impacts occur, such as but not limited to reflection off trains, adjacent landforms, buildings, unexpected sources, etc. b. The Lighting Evaluation Report shall make specific recommendations to reduce the effects of any unexpected or excessive residual lighting impacts identified in the report. Recommendations may include but not be limited to: repositioning lights, lowering heights, increasing sizes of cut-off shields, reducing types of luminaires, reducing wattage, and modifying operational procedures. AV-3c Existing Facility and Operations Lighting Evaluation. Prior to issuance of grading and construction permits, the applicant shall submit a comprehensive evaluation of the existing refinery facility and operations lighting to the Department of Planning and Building for review and approval showing the following: a. The Existing Facility and Operations Lighting Evaluation shall be prepared by a

AV Impact 3 (AV.3) - Light and Glare from SMR	
	qualified engineer who is an active member of the Illuminating Engineering Society of North America (IESNA). b. The Existing Facility and Operations Lighting Evaluation shall assess the sources and levels of all existing lighting associated with the refinery operations, and shall determine if any lighting levels exceeds the minimum required by applicable County of San Luis Obispo, state and federal safety regulations. c. If lighting levels exceed the applicable regulations, the Existing Facility and Operations Lighting Evaluation shall make specific recommendations to reduce the lighting levels to the minimum required. The Existing Facility and Operations Lighting Evaluation shall also identify and make recommendations to eliminate visibility of all point source lighting as seen from public roadways. The project applicant shall implement all recommendations made by the Lighting Evaluation Report and required by the Department of Planning and Building.
Findings	The utilization of light shielding, motion-activated lights, limited light location and an as-built evaluation, would reduce the light and glare impacts of the rail spur to less than significant.
Supportive Evidence	New outdoor lighting is proposed throughout the project. The unloading area would have 70 floodlights placed or mounted under the canopy at the unloading area. The lights associated with the unloading area would be used on an as-needed basis, when trains are being unloaded. This could occur at night between dusk and dawn, since trains could arrive at any hour. Trains would be on site approximately 10 to 12 hours, and unloading would last approximately 8 hours per train. Additional lighting is proposed along the perimeter fencing around the rail spur, which would extend approximately 0.9 mile east of the unloading area. This lighting would be placed on 15-foot tall poles, at 500 feet apart around the entire perimeter of the spur. Two floodlights would be placed on each pole. These security lights are proposed to remain on only when a train is at the refinery. The preliminary Applicant supplied lighting plans describe that Dark Skies Compliant light fixtures would be used, however no additional information is provided regarding the specific design, orientation and connection angles of project lighting as they relate to Dark Sky practices. The lighting proposed at the unloading facility would appear to be part of the existing coke processing area and would likely go unnoticed to the casual observer. Although the unloading facility lights would introduce light into a new area, they would not appear out of place given the relatively close proximity to the refinery and coke processing facility. The closest residence to the unloading area lights would be approximately 0.5 mile away east and south. The security lighting proposed for the rail spur perimeter would be seen from viewpoints along State Route 1 and portions of the Trilogy and Monarch Ridge Townhome developments. The security lighting would extend to just beyond the east terminus of the Rail Spur. The closest residence to the unloading area lights would be approximately 0.5 mile away. Since the final lighting plan is not complete at this time, the potential exists for visible glare and light trespass into the surrounding area due to improper design, and therefore the impact is considered potentially significant. By implementing mitigation measures AV-3a and AV-3b the impacts to nighttime lighting and glare would ensure that lighting would not produce light and glare impacts and would be considered less than significant with mitigation (Class II). The required mitigation measures would limit the amount of light that would spill over from the lighting fixtures.

AV Impact 4 (AV.4) - Light and Glare from Train Headlights at SMR	
Visibility of headlights and other operational and safety lights from trains on the rail spur would create a new source of light and glare which would adversely affect nighttime views in the area.	
Mitigation	AV-4 Implementation of mitigation measures AV-1a through AV-1c required for Impact AV.1 and mitigation measure AV-3b required for Impact AV.3 would also reduce potential impacts caused by trains operating on the rail spur.
Findings	The installation of earthen berms, and evaluations of as-built operations would reduce the light and glare impacts of the rail spur to less than significant.
Supportive Evidence	Due to safety requirements, train engines and other equipment operating at nighttime on the rail spur would have headlights and other lights turned on for an undetermined length of time. Because of the generally east-west orientation of the rail spur tracks, lights from train engines moving the tanker cars around would potentially be a highly visible new source of light and glare as seen from public viewpoints to the east. Implementation of mitigation measures AV-3a and AV-3b and AV-4 would reduce the project's adverse night lighting effects as seen from key public viewpoints on State Route 1, the California Coastal Trail, the De Anza Trail, and other public areas surrounding the Project Site by minimizing glare and light spillover into the surrounding area. As a result, the project impacts would be considered to be less than significant.

9.2 AGRICULTURAL RESOURCES (CLASS II)

AR Impact 3 (AR.3) - Impacts on Agricultural Areas Adjacent to SMR	
The project could result in effects that impair adjacent agricultural uses, including the generation of dust and contaminated air emissions, soil and water contamination, use of water within the Santa Maria Groundwater Basin, the spread of noxious weeds, and increased risk of fire or oil spills, which have the potential to adversely affect adjacent agricultural areas.	
Mitigation	AR-3 Implement WR-1 (BMPs for spills), WR-2 (SPCC Amended); AQ-1f (dust control measures), and BIO-9 (storm water materials free of invasive weed seeds).
Findings	Mitigation measures related to BMPs for spills, SPCC Plans amendments, dust control measures, and measures requiring storm water materials be free of invasive weed seeds would limit impacts on agricultural resources to less than significant.
Supportive Evidence	Project development could generate dust and contaminated air emissions, create hazardous materials contamination, increase water demands, spread noxious weeds, increase risk of fire or oil spills, and result in other effects, all with the potential to adversely affect on-site grazing activities and adjacent off-site agricultural uses. Although the potential for oil spills currently exists at the SMR, the Rail Spur Project increases the potential for leaks or spills due to operation of the unloading facility and associated pipeline. The potential for impacts from spills related to soil and water contamination, and destruction by accidental fires and spills is considered low but would still be considered potentially significant. Regarding dust, the applicant is required to comply with San Luis Obispo County APCD standards for control of particulate matter, which would reduce the generation and transport of dust during construction (see mitigation measure AQ-1f). Regarding the spread of noxious weeds, mitigation is identified in the Biological Resources section that addresses the potential spread of invasive plants (refer to BIO-9). Potential impacts on agricultural uses of other properties would be potentially significant prior to implementation of these mitigation measures. Based on implementation of mitigation measures referenced above, potential

	impacts to agricultural resources onsite and in the area would be less than significant

9.3 AIR QUALITY (CLASS II)

AQ Impact 1 (AQ.1) - SMR Construction Emissions	
Construction activities associated with the Rail Spur project would generate criteria pollutant emissions that exceed SLOCAPCD thresholds.	
Mitigation	AQ-1a Prior to issuance of grading and construction permits, and throughout project construction, as applicable, the Applicant shall implement the following construction emission reduction measures: a. Properly maintain all construction equipment according to manufacturer's specifications; b. Fuel all off-road and portable diesel powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road); c. Applicant shall include the following, in addition to complying with state Off-Road Regulations, in order to reduce peak daily/quarter ROG+NO_x emissions: 1) Use CARB Tier 4 certified diesel construction equipment off-road heavy-duty diesel engines and 2) Stagger the construction schedule to prevent peak day/quarter emissions from exceeding the threshold (for example, no site preparation during grading and soil transport); d. Use CARB 2010 or cleaner certified on-road heavy-duty diesel trucks to the extent feasible and comply with state On-Road Regulations; e. If construction or trucking companies that are awarded the bid or are subcontractors for the project do not have equipment to meet the above two measures, the impacts from the dirtier equipment shall be addressed through SLOCAPCD approved off-site or other mitigation measures; f. All on- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and job sites to remind drivers and operators of the 5 minute idling limit; g. Diesel idling within 1,000 feet of sensitive receptors is not permitted (Sensitive receptors are defined in the SLOCAPCD Handbook as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units); h. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors; i. Equipment shall be electrified when feasible; j. Substitute gasoline-powered or diesel hybrids in place of diesel-powered equipment, where feasible; and k. Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel. AQ-1b Prior to issuance of grading and construction permit, the Applicant shall ensure SLOCAPCD regulations that prohibit developmental burning of vegetative material within San Luis Obispo County are followed for the life of the project. AQ-1c Prior to issuance of grading and construction permit, the Applicant shall ensure that portable equipment and engines 50 horsepower or greater, used during grading and construction activities must have a California portable equipment registration (issued by the ARB) or a SLOCAPCD permit. Proof of registration must be provided to the SLOCAPCD prior to the start of grading or construction or a permit secured from the SLOCAPCD prior to the start of grading or construction. The following list is as a guide to equipment and operations that may have permitting requirements, but it is not exclusive: a. Power screens, conveyors, diesel engines, and/or crushers; b. Portable generators and equipment with 50-horsepower or greater engines; c. Internal combustion engines;

AQ Impact 1 (AQ.1) - SMR Construction Emissions	
	d. Unconfined abrasive blasting operations; e. Concrete batch plants; f. Rock and pavement crushing; g. Tub grinders; and h. Trommel screens. AQ-1d Prior to issuance of grading and construction permit, the Applicant shall ensure that all grading and construction equipment greater than 100 bhp be equipped with CARB Level 3 diesel particulate filters (DPF), or equivalent, to achieve an 85 percent reduction in diesel particulate emissions from an uncontrolled engine. If CARB verified Level 3 DPFs cannot be secured for all of the equipment greater than 100 hp then the applicant will offset the added DPM with measures including but not limited to schedule modifications, implementation of no idling requirement, or other applicable measures providing a total reduction equivalent to an 85 percent reduction from uncontrolled engines as approved by the SLOCAPCD. AQ-1e Prior to issuance of grading and construction permits, or during construction, if emissions of ROG+NO_x with the above mitigations still exceed the thresholds, the Applicant shall secure SLOCAPCD-approved onsite or off-site reductions in ROG+NO_x emissions to ensure that ROG+NO_x emissions do not exceed the SLOCAPCD quarterly thresholds. Coordination with the SLOCAPCD should begin at least six (6) months prior to issuance of grading and/or construction permits for the Project to allow time for refining calculations and for the SLOCAPCD to review and approve the Construction Activity Management Plan (CAMP) and on-site or off-site mitigation approach. AQ-1f Prior to issuance of applicable grading permit, the Applicant shall prepare a Dust Control Plan to be approved by the APCD and County Health and include requirements in the SLOCAPCD CEQA Handbook identified as fugitive dust mitigation measures and shall include a combination of the following, as approved by the SLOCAPCD and County Health: a. Reduce the amount of the disturbed area where possible. b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. c. All dirt stockpile areas should be sprayed daily as needed, covered, or a SLOCAPCD-approved alternative method will be used. (90 percent reduction from no dust control). d. Permanent dust control measures identified in the approved Project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities and shall use native species that have been shown to reduce particulate emissions to the extent feasible. e. Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established. f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOCAPCD. g. All roadways, driveways, etc. to be paved should be completed as soon as possible. In addition, equipment pads should be laid as soon as possible after grading unless seeding or soil binders are used. h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site. i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114. j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site. k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible

AQ Impact 1 (AQ.1) - SMR Construction Emissions	
	l. Apply water every 3 hours to disturbed areas within the construction site in order to achieve a 61 percent reduction in particulate emissions. In addition, when drought conditions are present, fugitive dust control measures need to be modified by utilizing soil binders or other equivalent measures, to conserve water resources while still providing the necessary emission reductions. m. In support of APCD standard fugitive dust mitigation measures, the applicant shall designate a Visible Emission Evaluation certified person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize nuisance violations from dust complaints (Rule 402) and to reduce visible emissions below the APCD's Rule 401 requirement that opacity not exceed 20% for greater than 3 minutes in any 60 minute period. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of the designated monitor shall be provided to the SLOCAPCD Compliance Division and the Department of Planning and Building prior to the start of any grading, earthwork, or demolition. n. All PM_{10} mitigation measures required shall be shown on grading and building plans. o. Between June 1 and November 30, when Valley Fever rates of infection are the highest, additional dust suppression measures (such as additional water or the application of additional soil stabilizer) will be implemented prior to and immediately following ground disturbing activities if wind speeds exceed 15 miles per hour (mph) or temperatures exceed 95 degrees Fahrenheit for three consecutive days. The additional dust suppression will continue until winds are 10 mph or lower and outdoor air temperatures are below 90 degrees for at least two consecutive days. The additional dust suppression measures will be incorporated into the Final Dust Control Plan. The Plan will be submitted to the County for review and approval. p. The primary project construction contractor will prepare and implement a worker training program that describes potential health hazards associated with Valley Fever, common symptoms, proper safety procedures to minimize health hazards, and notification procedures if suspected work-related symptoms are identified during construction. The worker training program will identify safety measures to be implemented by construction contractors during construction. Safety measures will include: 1) Providing HEPA-filtered air-conditioned enclosed cabs on heavy equipment. 2) Train workers on proper use of cabs, such as turning on air conditioning prior to using the equipment. 3) Providing communication methods, such as two-way radios, for use by workers in enclosed cabs. 4) Providing personal protective equipment (PPE), such as half-mask and/or full-mask respirators equipped with particulate filtration, to workers active in dusty work areas. 5) Providing separate, clean eating areas with hand washing facilities for construction workers. 6) Cleaning equipment, vehicles, and other items before they are moved offsite to other work locations. 7) Providing training for construction workers so they can recognize the symptoms of Valley Fever and promptly report suspected symptoms of work related Valley Fever to a supervisor. 8) Directing workers that exhibit Valley Fever symptoms to immediately seek a medical evaluation. q. Construction activities that will generate dust shall be limited to periods when good air quality is forecasted to the maximum extent feasible. The 6 day forecast for the CDF forecast zone shall be utilized as available from the APCD website, slocleanair.org. This information should be used by all on-site workers to plan construction activities for days when the air quality is forecast to be good. AQ-1g Prior to issuance of applicable grading permit, the Applicant shall submit a geologic evaluation under the CARB ATCM for Construction, Grading, Quarrying, and Surface Mining Operations, to determine if Naturally Occurring Asbestos (NOA) is present within the area that will be disturbed. NOA has been identified as a toxic air contaminant by the CARB. If NOA is not present, an exemption request must be filed with the SLOCAPCD. If NOA is found at the site, the Applicant must 1) comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the SLOCAPCD; and 2) conduct a geological evaluation prior to any grading. Technical Appendix 4.4 of the SLOCAPCD CEQA Handbook includes a map of zones throughout the County where NOA has been

AQ Impact 1 (AQ.1) - SMR Construction Emissions	
	found. More information on NOA is available at http://www.slocleanair.org/business/asbestos.php. AQ-1h Prior to issuance of demolition permits, if required, the Applicant shall comply with asbestos containing material (ACM) requirements. Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of ACM. ACM could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes and pipelines (transite pipes or insulation on pipes). If utility pipelines are scheduled for removal or relocation or a building(s) is proposed to be removed or renovated, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP). These requirements include but are not limited to: (1) notification to the SLOCAPCD; (2) an asbestos survey conducted by a Certified Asbestos Inspector; and (3) applicable removal and disposal requirements of identified ACM. More information on asbestos is available at http://www.slocleanair.org/business/asbestos.php. AQ-1i Should hydrocarbon contaminated soil be encountered during construction activities, the SLOCAPCD must be notified as soon as possible and no later than 48 hours after affected material is discovered to determine if an SLOCAPCD Permit will be required. In addition, the following measures shall be implemented immediately after contaminated soil is discovered: 1) Covers on storage piles shall be maintained in place at all times in areas not actively involved in soil addition or removal; 2) Contaminated soil shall be covered with at least six inches of packed uncontaminated soil or other TPH –non-permeable barrier such as plastic tarp. No headspace shall be allowed where vapors could accumulate; 3) Covered piles shall be designed in such a way to eliminate erosion due to wind or water. No openings in the covers are permitted; 4) During soil excavation, odors shall not be evident to such a degree as to cause a public nuisance; and, 5) Clean soil must be segregated from contaminated soil. The notification and permitting determination requirements shall be directed to the SLOCAPCD Enforcement Division.
Findings	With the implementation of construction related mitigation measure above, including clean diesel engines and dust control and onsite or offsite reductions in ROG+NO_x, impacts would be reduced to less than significant.
Supportive Evidence	Air emissions from construction equipment were estimated using the emission factors and equations from the CalEEMod 2013.2.2 software models for both onsite and offsite emissions, and the assumptions on the duration and personnel detailed in the EIR Section 2.0, Project Description. The emissions from construction activities would exceed the SLOCAPCD thresholds for the daily emissions of NO_x and ROG, the quarterly emissions of NO_x and ROG Tier 1, the daily emissions of diesel particulate matter, and the quarterly emissions of diesel particulate matter Tier 1. Therefore, impacts would be potentially significant. There would be no exceedances of the construction thresholds for fugitive dust emissions. Implementation of mitigation measures related to construction equipment controls for diesel particulate matter would reduce DPM to levels below the thresholds. Emissions of ROG+NO_x would remain above the daily and quarterly thresholds without offsite reductions or the staggering of the construction schedule. Staggering of the construction schedule to prevent rail spur construction from occurring at the same time as grading and soil transport would reduce the peak daily ROG+NO_x to below the thresholds. Extending the grading and soil transport activities to 5 months, instead of 4, would reduce the quarterly ROG+NO_x emissions to below the thresholds. With the implementation of offsite reductions through mitigation measure AQ-1e or scheduling staggering (AQ-1a), impacts would be less than significant.

AQ Impact 4 (AQ.4)- SMR Impacts of Toxic Emissions
Operational activities at the Refinery associated with the Rail Spur Project would generate toxic emissions that exceed SLOCAPCD thresholds.

AQ Impact 4 (AQ.4)- SMR Impacts of Toxic Emissions	
Mitigation	AQ-4a Implement measures AQ-2a (Tier 4 locomotives and/or offsets) and AQ-2b (idling restrictions). AQ-4b All trucks under contract to the SMR for moving coke and sulfur shall meet EPA 2010 model year NO_x and PM emission requirements and a preference for the use of rail over trucks for the transportation of coke shall be implemented to the extent feasible in order to reduce offsite emissions. Annual truck trips associated with refinery operations and their associated model year and emissions shall be submitted to the SLOCAPCD annually. AQ-4c If mitigation measure AQ-2a (the use of Tier 4 locomotives only) is not implemented, then crude oil train unloading and switching activities at the SMR shall be limited to the period of 7 a.m. to 7 p.m. to reduce the emissions during periods of calm meteorological conditions. Reports shall be submitted to the County and APCD indicating the time of arrival, the start and end time of train switching break-apart and unloading and departure time. These time limits do not apply to pull-in of the unit trains from the mainline. When a unit train is pulled in between 7 p.m. and 7 a.m., the locomotives shall shut down until the allowed unloading time starting at 7 a.m. No switching or breaking apart of trains or any other locomotive activity is allowed between 7 p.m. and 7 a.m. except for the minimum activity needed to move the unit train onto the SMR property.
Findings	Mitigation measures would reduce the severity of impacts to less than significant, Impacts associated with the 3 trains per week EIR alternative in the vicinity of the SMR would be less than significant with mitigation (Class II)
Supportive Evidence	Operational activities at the SMR would produce emissions of toxic materials from fugitive emissions sources containing Benzene, Toluene, etc, and from the diesel combustion used for the locomotives. As part of the EIR analysis a health risk assessment (HRA), utilizing the HARP2 modeling program, was conducted to estimate the impacts of the fugitive and locomotive diesel emissions, in combination with the existing SMR and truck traffic emissions, on nearby offsite worker and agricultural areas and residential parcels. The HARP2 model is a health risk assessment model and is recommended in CARB's Health Risk Assessment Guidance. The results of the HRA showed that acute and chronic (short term) impacts would have a health index of less than 1.0 at all parcel boundary points and at residential receptors and the offsite worker receptors located to the north and at the agricultural fields to the south of the SMR, and therefore not produce an impact. The results of the HRA for the three trains per week project showed that cancer (long term) impacts would be below the APCD thresholds for residential receptors and would be less than significant with mitigation. The use of all Tier 4 locomotives (AQ-2a) and limits on locomotive idling time (AQ-2b) would reduce DPM emissions, which are the main driver of the health risk cancer impacts. With the implementation of the mitigation, including the Tier 4 locomotives, idling restrictions and the use of 2010 trucks (mitigation measures AQ-2a, AQ-2b and AQ-4b), the cancer risks would be reduced to below the thresholds and impacts would be less than significant with mitigation. In addition, with just the limits on locomotive idling time, the cleaner trucks, and the limits on nighttime unloading (AQ-2b, AQ-4b and AQ-4c), and the three trains per week project, if the Tier 4 locomotives mitigation measure AQ-2a is preempted by Federal law and cannot be implemented, the highest cancer risk at a residential or sensitive receptor would also be below the thresholds and would be less than significant with mitigation and the three trains per week project.

AQ Impact 7 (AQ.7) - SMR Operational Odors	
Operational activities associated with the Rail Spur Project could generate odors.	
Mitigation	AQ-7 Prior to issuance of Notice to Proceed, the Applicant shall ensure that any new odor sources be added to the existing Refinery Odor Control Plan and submitted to the SLOCAPCD for review and approval before the start of construction. Mitigation shall

AQ Impact 7 (AQ.7) - SMR Operational Odors	
	include carbon canisters on all vacuum trucks, arrival and pre-departure inspection of all rail cars for fugitive leaks, monitoring of rail car top vents during unloading, and methods to reduce and eliminate odors associated with maintenance activities. Monitoring of odors from the rail facility and the other portions of the SMR potentially affected by a change in crude oil slate, shall be included in the Plan and shall be conducted by an independent third party monitor, retained by the County of San Luis Obispo Department of Planning, for the first three months of operation during each unit train visit. The APCD shall be notified of monitoring and unit train activity. Monitoring activities can be reduced, in coordination and agreement with the APCD, after the facility startup if odors are not determined to affect areas offsite. In addition to monitoring, the amended Odor Control Plan shall also detail control measures and/or operating procedures that will be implemented to reduce odor impacts if odors are a concern. The Plan shall also include an implementation schedule for incorporating additional measures if needed. The Plan measures shall include leak detection (if not already implemented), lower leak detection and repair threshold limits (to 100 ppm), increased component monitoring frequency (monthly), component replacement with lower leak levels and improved vapor control systems and these measures shall be discussed in the Odor Control Plan.
Findings	With the implementation of mitigation measure above, including the use of air emission control devices such as carbon canisters and rail car inspections, impacts would be reduced to less than significant.
Supportive Evidence	Sources of odors from the facility would be related to emissions of hydrocarbons, hydrogen sulfide and emissions of diesel exhaust. Emissions of fugitive hydrocarbons from the Rail Spur Project would be substantially less than that from the existing refinery. The Applicant indicates the expected H_2S content of the crude oil vapor could be about one percent by weight. The release of material that contains even small amounts of sulfur compounds (H_2S) or hydrocarbons produces an odor. Sulfur compounds, found in oil and gas, have very low odor threshold levels. The Applicant has proposed the use of carbon canisters. Emissions of odiferous H_2S from the canisters would be very low and would not produce offsite H_2S levels that could produce odors. Under worst case meteorological conditions and high H_2S levels, fugitive emissions (leaking components) could cause odor impacts offsite and odor emissions would be potentially significant. Mitigation measures would be addressed under the Refinery Odor Control Plan to reduce the emissions from valves and components. Addition measures, such as lower leak detection and repair thresholds or monitoring frequency, would reduce emissions, reducing offsite impacts to less than significant. Odor impacts associated with the project would therefore be less than significant

AQ Impact 8 (AQ.8) - SMR GHG Cumulative Emissions	
Cumulative criteria pollutant and GHG emissions at the SMR could exceed SLOCAPCD thresholds.	
Mitigation	AQ-8 Prior to issuance of the Notice to Proceed, the Applicant shall provide a GHG mitigation, monitoring and reporting plan. The plan shall investigate methods to bring the Rail Spur Project GHG emissions at the refinery to zero for the entire project each year. The plan shall indicate that, on an annual basis, if after all onsite mitigations are implemented, the GHG emissions from the Rail Spur Project still exceed zero, then SLOCAPCD-approved off-site mitigation will be required. Methods could include the contracting arrangement that increases the use of more efficient locomotives, or through other, onsite measures. Coordination with the SLOCAPCD should begin at least six (6) months prior to issuance of operational permits for the Project to allow time for refining calculations and for the SLOCAPCD to review and approve the mitigation approach.

AQ Impact 8 (AQ.8) - SMR GHG Cumulative Emissions	
Findings	With the implementation of measures to reduce or offset GHG emissions, impacts would be reduced to less than significant.
Supportive Evidence	The Throughput Increase Project would increase criteria, toxic pollutants, and GHG emissions over the current baseline. The cumulative emissions for the two projects would exceed the daily SLOCAPCD threshold for ROG+NO_x and diesel particulate matter, and the annual threshold ROG+NOx and GHG. Mitigation measures AQ-2a and AQ-2b require the Applicant to reduce ROG+NO_x and DPM emissions through the use of Tier 4 engines and reduced idling and on-site refinery measures. Any remaining ROG+NO_x emissions would be mitigated by either onsite or offsite emissions credits. Therefore, with the mitigation required by the Throughput Increase permit and the mitigation required for the Rail Spur Project, cumulative criteria pollutant emissions would be less than significant. Given that the Throughput Increase permit only requires the GHG emissions to be reduced to less than 10,000 metric tonnes per year, any increase in GHG emissions associated with the Rail Spur Project would be considered cumulatively significant. By requiring the Rail Spur Project to reduce GHG emissions to zero, as in mitigation measure AQ-8, the residual cumulative criteria pollutant emissions at the refinery would be less than significant.

9.4 BIOLOGY (CLASS II)

BIO Impact 1 (BIO.1) - Nipomo Mesa Lupine Impacts	
Proposed construction of the Rail Spur Project has the potential to impact Nipomo Mesa lupine, a state and federally endangered plant species.	
Mitigation	BIO-1 Prior to initiation of project activities, a floristic survey shall be conducted within the Rail Spur Project area in accordance with the California Department of Fish and Wildlife (CDFW) Protocol for surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (2009) and the Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed, and Candidate Species (USFWS 2000). The survey shall specifically focus on the presence/absence of Nipomo Mesa lupine and, if normal rainfall conditions are present during the survey, the findings would be only valid for a period of two years. The floristic survey shall be conducted during a blooming period with normal rainfall. A 'normal' rainfall period is equivalent to the monthly or annual average of precipitation over a 30 year time period for the area. The results of this survey shall be submitted to the County, United States Fish and Wildlife Service, and California Department of Fish and Wildlife within 30 days of completing the survey. If 'normal' rainfall conditions have occurred prior to the initiation of the survey, and the results of this survey effort determine that Nipomo Mesa lupine is absent from the Rail Spur Project area, no further mitigation for this species shall be required at this time. Because it is well documented that Nipomo Mesa lupine may occur as a result of site disturbance, floristic surveys shall be conducted on an annual basis until there is no further disturbance to the native soil as a result of construction activities. Should Nipomo Mesa lupine be identified during construction, or if Nipomo Mesa lupine is identified prior to the initiation of activities during 'normal' rainfall conditions, the project shall avoid the individual or population to the extent feasible. If avoidance is not feasible then the applicant would be required by law to coordinate with California Department of Fish and Wildlife to acquire a 2081 Incidental Take Permit for this species and comply with any conditions imposed by that permit. At a minimum, the applicant shall implement BIO-5a (Dune Habitat Restoration Plan) and include Conservation Measures to establish and monitor Nipomo Mesa lupine population(s) within the identified on-site mitigation area at a ratio of 3:1 for

BIO Impact 1 (BIO.1) - Nipomo Mesa Lupine Impacts	
	individuals. The mitigation area for Nipomo Mesa lupine may overlap with the mitigation area for sensitive community impacts, which shall be protected from any grazing activities in perpetuity.
Findings	With the implementation of restoration and mitigation areas, impacts would be reduced to less than significant.
Supportive Evidence	Nipomo Mesa lupine, a state and federally endangered plant species, is known to occur within the Project Site. Based on CNDDB records, the nearest known occurrence of this species is located adjacent to existing tank facilities. The current determination of presence/absence of Nipomo Mesa lupine within the Rail Spur Project area cannot be definitively determined based on the existing survey data. Although the presence of this species is unlikely due to the distance from historically mapped populations, the Rail Spur Project may result in potential impacts to Nipomo Mesa lupine, which would be considered a significant impact. With implementation of the above mitigation measures, any potential impacts to Nipomo Mesa lupine will be identified during an appropriate blooming period under a 'normal' rainfall period. A 'normal' rainfall period is equivalent to the monthly or annual average of precipitation over a 30 year time period for the area. Should this species be identified within the Rail Spur Project area, measures are proposed for avoidance or the development of mitigation at a 3:1 ratio and therefore direct impacts to Nipomo Mesa lupine would be less than significant

BIO Impact 2 (BIO.2) - Removal of Rare Plant Species	
Proposed construction of the Rail Spur and associated Emergency Vehicle Access route would result in the removal of plant species considered to be rare by the California Native Plant Society.	
Mitigation	BIO-2 Prior to project activities, the total number of California spineflower (Mucronea californica), sand almond (Prunus fasciculata var. punctata), Blochman's groundsel (Senecio blochmaniae), Blochman's leafy daisy (Erigeron blochmaniae), and dune larkspur (Delphinium parryi ssp. blochmaniae) shall be accurately estimated during the implementation of BIO-1. These population estimates shall be utilized as the basis for the in-kind replacement of these species described in Mitigation Measure BIO-5e. Should any additional populations of sensitive plant species that are considered rare by the California Native Plant Society (and not formally listed under the Endangered Species Act) be identified during the implementation of BIO-1 that were not previously observed in 2013, these species will also be replaced in-kind as part of the Dune Habitat Restoration Program and replacement success would be held to the same performance standards.
Findings	With the implementation of restoration and mitigation areas, impacts would be reduced to less than significant.
Supportive Evidence	Project impacts on plant species considered rare by the California Native Plant Society would occur as a result of the Rail Spur Project. Potential impacts may occur to species such as: California spineflower (Mucronea californica), sand almond (Prunus fasciculata var. punctata), Blochman's groundsel (Senecio blochmaniae), and Blochman's leafy daisy (Erigeron blochmaniae), and dune larkspur (Delphinium parryi ssp. blochmaniae). The population of these annual species is expected to fluctuate from year to year. However, given the estimated population and the relatively common occurrence of these species, with the implementation of mitigation measure BIO-2, including surveys and restoration areas at a 1:1 ratio, residual impacts are considered to be less than significant with mitigation (Class II). Implementation of the Dune Habitat Restoration Plan (DHRP) (BIO-5a) would further reduce any impacts to these species.

BIO Impact 3 (BIO.3) - Impacts on Ground Dwelling Wildlife	
Proposed construction and operational activities could result in disturbance and mortality to common ground-dwelling wildlife and sensitive ground-dwelling animal species.	
Mitigation	BIO-3 Prior to issuance of grading and construction permits, a qualified wildlife biologist shall prepare a Sensitive Species Management Plan, which outlines the procedures and protocols for capturing and relocating sensitive animal species including coast horned lizard and silvery legless lizard during all phases of grading. This plan shall be approved by the County and California Department of Fish and Wildlife. Implementation of the Plan is required where impacts to sensitive animal species and their habitats are unavoidable and located within a minimum of 100 feet of the Disturbance Area (or greater as determined by the California Department of Fish and Wildlife). Within 30 days prior to mobilization, grading or construction, a qualified wildlife biologist shall conduct a pre-construction survey of the area of impact to determine the presence of sensitive wildlife species. Individuals will be searched and captured using techniques appropriate to the species of concern and approved by the appropriate resource agencies. All captured individuals will be released as soon as possible into nearby suitable habitat that has been previously identified by the qualified wildlife biologist in consultation with the County and California Department of Fish and Wildlife. The size or age-class, location of capture, and the relocation site shall be recorded for each individual relocated from the site.
Findings	With the implementation of capturing and relocating sensitive animal species, impacts would be reduced to less than significant.
Supportive Evidence	Construction and operational activities are expected to have impacts on common and sensitive wildlife species that are known to occur within the Rail Spur Project area. With implementation of capturing and relocating sensitive animal species, direct impacts to common fossorial wildlife and sensitive fossorial animals would be less than significant.

BIO Impact 4 (BIO.4) - Impacts on American Badger	
Proposed construction activities could result in disturbance of American badger, potentially including mortality.	
Mitigation	BIO-4 At a minimum, the following measures shall be incorporated in the Sensitive Species Management Plan: 1. Prior to grading activities, a County-approved biologist shall conduct a survey to identify whether badgers are using any portion of the site near the area in which disturbance is proposed. The survey shall be conducted no less than 14 days and no more than 30 days prior to construction. The survey shall cover the boundaries of proposed disturbance and 100 feet beyond, including all access roads, and shall examine both old and new dens. If potential badgers dens are found, they shall be inspected to determine whether they are occupied by badgers. Occupation of the den shall be determined by one or more of the following methods: a. Use of a fiber-optic scope to examine the den to the end: b. Partially obstruct the den entrance with sticks, grass, and leaves for three consecutive nights and examine for signs that animals are entering or leaving the den; c. Dust the den entrance with a fine layer of dust or tracking medium for three consecutive nights and examine the following mornings for tracks. 2. Inactive dens within construction areas shall be excavated by hand with a shovel to prevent re-use of dens during construction. 3. If badgers are found in dens between August and January, a qualified biologist shall establish a 50 foot diameter exclusion zone around the entrance. To avoid disturbance and the possibility of direct take of badgers, no construction, grading, or staging of equipment shall be conducted within the buffer area until the biologist has determined

BIO Impact 4 (BIO.4) - Impacts on American Badger	
	that the badger(s) have vacated the den. 4. If badgers are found in dens between February and July, nursing young may be present. Therefore, a County-approved biologist shall establish a 200-foot diameter buffer around the den. No construction, grading, or staging of equipment shall be conducted within the buffer area until the biologist has determined that the badgers have vacated the den.
Findings	With the implementation of surveying and construction exclusion zones, impacts would be reduced to less than significant.
Supportive Evidence	Construction activities are expected to have impacts on common and sensitive wildlife species that are known to occur within the Rail Spur Project area, including American badger. With implementation of the above mitigation measures, a take of American badger can be avoided and direct impacts would be less than significant.

BIO Impact 5 (BIO.5) - Impacts on Sensitive Vegetation	
Proposed construction of the Rail Spur Project could result in a permanent impact to approximately 20.88 acres of vegetation types that are considered sensitive communities by the California Department of Fish and Wildlife following the National Vegetation Classification.	
Mitigation	BIO-5a Prior to issuance of any grading permits, the applicant shall retain a qualified biologist and/or botanist acceptable to the County to prepare a Dune Habitat Restoration Plan (DHRP) for review and approval by the County in consultation with the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS). The DHRP shall be signed by the retained qualified biologist and/or botanist and shall detail the methods for restoring or enhancing a minimum of 41.76 acres (2:1 for permanent impacts) of vegetation types considered to be sensitive communities by CDFW, with an emphasis on restoring known rare plant associations found within the BSA and those associations considered locally rare to the Guadalupe-Nipomo Dunes. The restoration area(s) shall be located within the Phillips 66 property boundary and protected from any grazing activity. The DHRP shall focus on restoring and enhancing sensitive communities, known rare plant associations, and species of locally rare plant associations, by removing invasive species (iceplant, veldt grass, and other invasive species) and planting appropriate native species, including but not limited to: mock heather, purple nightshade, Blochman's ragwort, Blochman's leafy daisy, California spineflower, sand almond and suffrutescent wallflower. Should Nipomo Mesa lupine be identified within the Rail Spur Project area as a result of BIO-1, and avoidance of this species is not feasible, the DHRP shall also include methods of restoring and enhancing Nipomo Mesa lupine at a ratio of 3:1 for permanent impacts to individuals. Regardless of whether Nipomo Mesa lupine is identified on-site as part of BIO-1, the DHRP shall also focus on restoring and enhancing sensitive communities and rare plant associations immediately adjacent to known Nipomo Mesa lupine populations in order to promote expansion of the existing population. At a minimum, the DHRP shall include the following elements: a. Identification of locations, amounts, size and types of plants to be replanted, as well as any other necessary components (e.g., temporary irrigation, amendments, etc.) to ensure successful reestablishment. b. Provide for a native seed collection effort prior to ground disturbing activities. Collection of native seed shall be propagated by a County-approved contractor. Plants shall include but not be limited to California Native Plant Society (CNPS) listed plant species that may be affected. c. Quantification of impact based on "as-built plans" and quantification of mitigation

BIO Impact 5 (BIO.5) - Impacts on Sensitive Vegetation	
	areas such that the replacement criteria are met (2:1 acreage ratio, or 3:1 for Nipomo Mesa lupine individuals). d. A program schedule and success criteria for a minimum five year monitoring and reporting program that is structured to ensure the success of the DHRP. e. Provide for the in-kind replacement of the following sensitive species that occur within the Rail Spur Project area, which may include: California spineflower (Mucronea californica), sand almond (Prunus fasciculata var. punctata), Blochman's groundsel (Senecio blochmaniae), Blochman's leafy daisy (Erigeron blochmaniae) and dune larkspur (Delphinium parryi ssp. blochmaniae). Should Nipomo Mesa lupine be identified onsite, in-kind replacement of this species shall also be included. Individuals that are removed or damaged shall be replaced in-kind at a 3:1 ratio (based on square feet cover) within the designated restoration area with 100% success in 5 years. f. Identification of access and methods of materials transport to the restoration area, including personnel, vehicles, tools, plants, irrigation equipment, water, and all other similar supplies. Access shall not result in new or additional impacts to habitat and special-status species. g. The required Dune Habitat Restoration Program shall incorporate an invasive species control program and be implemented by qualified personnel to ensure that the invasive species control program does not result in any additional impacts to Nipomo Mesa lupine, or other rare species. h. The restoration area shall be protected in perpetuity by an easement. The easement shall either be an open space easement, or a conservation easement if required by the California Department of Fish and Wildlife and United States Fish and Wildlife Service, or if chosen by the Applicant. The easement shall be in a form approved by County Counsel and CDFW and/or USFWS if required by those agencies. i. Upon successful completion of the Dune Habitat Restoration Program and subsequent approval by the permitting resource agencies, the applicant shall consider providing non-profit organizations such as California Native Plant Society and The Land Conservancy with long term access to the restoration site for the purposes of education, and long-term maintenance of the restoration site. Long-term maintenance activities would only occur if permitted by the applicant, and would require coordination with California Department of Fish and Wildlife and United States Fish and Wildlife Service. Access to the site is not guaranteed as a result of this measure. Funding for any future long-term maintenance activities shall be facilitated by the non-profit organization. BIO-5b Prior to initiation of construction, the applicant shall retain a qualified biologist or botanist acceptable to the County to supervise the implementation of the DHRP. The qualified biologist or botanist shall supervise plant salvage and/or seed collection (prior to construction), plant propagation, site preparation, implementation timing, species selected for planting, planting installation, maintenance, monitoring, and reporting of the restoration efforts. The qualified biologist or botanist shall prepare and submit four annual reports and one final monitoring report to the County for review and approval in consultation with California Department of Fish and Wildlife and United States Fish and Wildlife Service.. The annual and final monitoring reports shall include discussions of the restoration activities, project photographs, an assessment of success criteria attainment, and any remediation actions that may have been required in order to achieve the success criteria. BIO-5c Prior to issuance of grading and construction permits, the applicant shall define and clearly mark construction zone boundaries adjacent to known sensitive species occurrences with high visibility construction fencing, and shall mark groups of individual plants located within potential disturbance areas with highly visible flagging or fencing. BIO-5d Prior to construction (within 48 hours), the applicant's retained biologist or botanist shall provide instruction to construction personnel regarding avoidance of sensitive habitats and special-status plants located in the vicinities of areas experiencing ground disturbance. The training shall include presentation of photos of sensitive plant species and habitat, summary of regulations and conditions applicable to protection of the species, identification of areas where removal of the species is permitted pursuant to the final

BIO Impact 5 (BIO.5) - Impacts on Sensitive Vegetation	
	conditions of approval and DHRP, and any ramifications for non-compliance. BIO-5e During construction, where disturbance to sensitive habitat and sensitive plant species is unavoidable (and permitted by the County upon approval of the project), the top four inches of surface material shall be salvaged and stockpiled for restoration use in consultation with the County, California Department of Fish and Wildlife and United States Fish and Wildlife Service. Existing native vegetation shall also be removed and included as mulch in order to capture any existing native seed material. The salvaged material shall be used as the finish layer on fill slopes and other disturbed areas that will not require regular vegetation maintenance. BIO-5f During construction, the use of heavy equipment shall be restricted to within the identified work areas throughout the duration of construction activities and all construction personnel shall be advised of the importance of limiting ground disturbance and construction activities to within the identified work areas. A full-time biological monitor shall monitor shall map any populations or individual sensitive species that may bloom within, or directly adjacent to, areas of ground disturbance. Should Nipomo Mesa lupine be identified at any time during construction, the species shall be completely avoided and the County shall be contacted immediately. If avoidance is not feasible, or the species was inadvertently impacted during construction before identification by the biological monitor, the County and the applicant shall coordinate directly with the California Department of Fish and Wildlife and United States Fish and Wildlife Service. At a minimum, the impacts to any sensitive plant species shall be mitigated though implementation of BIO-5a.
Findings	With the implementation of restoration measures, impacts on sensitive vegetation would be reduced to less than significant.
Supportive Evidence	The EIR determined that the Rail Spur Project could permanently impact three sensitive communities (or vegetation types) as currently recognized by the California Department of Fish and Wildlife under the most recent classification system. These three vegetation types may be also generally referred to as Central Dune Scrub. The total acreage of potential impacts to these sensitive communities is 20.88 acres. The long-term impacts to this vegetation type resulting from removal of vegetation and permanent loss of habitat resulting from construction of the Rail Spur Project would be potentially significant. The identified mitigation would require restoration of 41.76 acres of habitat (2:1 acreage ratio for the permanent rail spur area). The restoration efforts, and five years of monitoring, would be documented by a biologist or botanist approved by the County, pursuant to an approved plan. The restoration area would be protected in the long term consistent with the required restoration plan. Therefore, with implementation of the above mitigation measures, direct impacts to CDFW sensitive communities (vegetation types) would be less than significant.

BIO Impact 6 (BIO.6) - Impacts on Coast Live Oak	
Proposed construction of the Rail Spur Project has the potential to impact individual specimens of coast live oak of 5-inch DBH or greater.	
Mitigation	BIO-6a At the time of application for grading and/or construction permits, the applicant shall prepare an Oak Tree Inventory, Avoidance, and Protection Plan as outlined herein. The plan shall be reviewed by a County-approved arborist prior to approval of grading and/or construction permits, and shall include the following items: a. Construction plans shall clearly delineate all trees within 50 feet of areas where soil disturbance would occur, and shall show which trees are to be impacted, and which trees are to remain unharmed. All inventoried trees shall be shown on maps. The species, diameter at breast height, location, and condition of these trees shall be documented in data tables.

BIO Impact 6 (BIO.6) - Impacts on Coast Live Oak	
	b. Prior to any grading or grubbing, all trees that are within fifty feet of construction or grading activities shall be marked for protection and their root zone shall be fenced. The outer edge of the tree root zone to be fenced shall be outside of the canopy 1/2 again the distance as measured between the tree trunk and outer edge of the canopy (i.e., 1-1/2 times the distance from the trunk to the drip line of the tree), unless otherwise shown on the approved construction plans. c. Prior to any grading or grubbing, a certified arborist shall be retained by the applicant to identify at risk limbs and perform all necessary trimming of oak tree limbs that could be damaged by project activities. Pruning shall be conducted as needed along all access roads and construction areas, including paved portions of County roads used for project equipment access. All pruning shall be conducted prior to construction equipment passage to minimize the potential for inadvertent damage to oak tree limbs. Removal of larger lower branches should be minimized to 1) avoid making tree top heavy and more susceptible to "blow-overs", 2) reduce having larger limb cuts that take longer to heal and are much more susceptible to disease and infestation, 3) retain wildlife habitat values associated with the lower branches, 4) retain shade to keep summer temperatures cooler and 5) retain the natural shape of the tree. The certified arborist shall document all pruning impacts in a report submitted to the County San Luis Obispo. d. A certified arborist shall be retained by the applicant to supervise all construction activities in areas containing oak trees in order to minimize disturbance to identified trees and their root zones wherever possible. The certified arborist will document all construction-related impacts to oak trees in an "as-built" report submitted to the County San Luis Obispo. e. Immediately following submittal of the oak tree impact "as-built" report to the County San Luis Obispo, the applicant shall implement mitigation for all identified pruning and construction-related oak impacts per current County San Luis Obispo ratios and methods for oak tree mitigation and replacement. County oak tree replacement standards require a project proponent to prepare and implement an oak tree replacement plan. The plan shall provide for the in-kind replacement, at a 4:1 ratio, of all oak trees removed as a result of the project. In addition, the plan must provide for the in-kind planting, at a 2:1 ratio, of all oak trees impacted but not removed. The replacement trees must be monitored for seven years after planting. BIO-6b Upon application for grading and construction permits, the applicant shall submit an Oak Tree Replacement, Monitoring, and Conservation Plan to the County Department of Planning and Building. The Plan shall include the following: a. The County-approved arborist shall provide or submit approval of an oak tree replacement plan at a minimum 4:1 ratio for oak trees removed and a minimum replacement ration of 2:1 ratio for oak trees impacted (i.e., disturbance within the root zone area). b. Replacement oak trees shall be from regionally or locally collected seed stock grown in vertical tubes or deep one-gallon tree pots. Four-foot diameter shelters shall be placed over each oak tree to protect it from deer and other herbivores, and shall consist of 54-inch tall welded wire cattle panels (or equivalent material) and be staked using T-posts. Wire mesh baskets, at least two feet in diameter and two feet deep, shall be use below ground. Planting during the warmest, driest months (June through September) shall be avoided. The plan shall provide a species-specific planting schedule. If planting occurs outside this time period, an irrigation plan shall be submitted prior to permit issuance and implemented upon approval by the county. c. Replacement oak trees shall be planted no closer than 20 feet on center and shall average no more than four planted per 2,000 square feet. Trees shall be planted in random and clustered patterns to create a natural appearance. As feasible, replacement trees shall be planted in a natural setting on the north side of and at the canopy/dripline edge of existing mature native oak trees (if present); on north-facing slopes; within drainage swales (except when riparian habitat present); where topsoil is present; and away from continuously wet areas (e.g., lawns, irrigated areas, etc). Replanting areas shall be either in native topsoil or areas where native topsoil has been reapplied. A seasonally timed maintenance program, which includes regular

BIO Impact 6 (BIO.6) - Impacts on Coast Live Oak	
	weeding (hand removal at a minimum of once early fall and once early spring within at least a three-foot radius from the tree or installation of a staked "weed mat" or weed-free mulch) and a temporary watering program, shall be developed for all oak tree planting areas. A qualified arborist/botanist shall be retained to monitor the acquisition, installation, and maintenance of all oak trees to be replaced. Replacement trees shall be monitored and maintained by a qualified arborist/botanist for at least seven years or until the trees have successfully established as determined by the County Environmental Coordinator. Annual monitoring reports will be prepared by a qualified arborist/botanist and submitted to the County by October 15 each year. d. The restored area shall be at a minimum equal in size to the area of oak habitat lost or disturbed.
Findings	With the implementation of restoration measures and long term monitoring of tree health, impacts on coast live oak would be reduced to less than significant.
Supportive Evidence	Based on current design plans for the Rail Spur Project, one mature coast live oak (Quercus agrifolia) may be impacted as part of the proposed Rail Spur Project. The specimen, along with other remnant oaks on the property, do not constitute an oak woodland, rather they are individual stands within dune scrub that serve as shading for cattle and optimal perching opportunities for foraging raptors, including red-tailed hawk and great horned owl, both of which have been regularly observed utilizing these trees. Implementation of identified mitigation would minimize potential impacts to oak trees, and will ensure that mitigation for all impacts will be conducted per County requirements, including replanting and long-term monitoring to ensure success. Therefore, potential impacts to coast live oak would be less than significant.

BIO Impact 7 (BIO.7) - Spill Impacts on Sensitive Habitats	
A rupture or leak from, pipelines, rails cars, or other facility related infrastructure during operation of the Rail Spur Project has potential to impact surrounding onsite sensitive habitats.	
Mitigation	BIO-7 Prior to issuance of grading and construction permits, the existing Santa Maria Refinery Spill Prevention, Control and Countermeasure Plan (SPCCP) shall be amended and submitted for review and approval to the County Planning and Building Department and the California Department of Fish and Wildlife, Office of Spill Prevention and Response. The Plan shall address protection of sensitive biological resources and revegetation of any areas disturbed during an oil spill or cleanup activities. The Plan shall incorporate, at a minimum, the following: a. An estimate of the worst case spill volume associated with the rail unloading operations. b. A description of the spill containment equipment for the facility that clearly demonstrates that the worst case spill can be contained within the rail facility boundaries. c. A description of the operating procedures for the rail unloading facilities that sever to prevent an oil spill. d. Measures taken to assure that the crude oil pipeline shall be designed such that any spill from the pipeline shall drain back to rail unloading area or shall otherwise be contained within the access roadway. e. Provide a list of onsite oil spill response equipment that is adequate to handle the worst case spill volume. f. Identify training requirement for oil spill response personnel, which includes annual spill drills. g. Identification and communication protocols and agreements for responsible parties tasked with emergency response, cleanup, and rehabilitation efforts of any wildlife

BIO Impact 7 (BIO.7) - Spill Impacts on Sensitive Habitats	
	species and habitat that may be impacted. h. Identification of known sensitive resources within any area that may be impacted by a potential oil spill or cleanup activities, and identification of staging areas and predetermined access and egress routes that pose little or no threat to sensitive biological resources. i. Identification of oil spill cost recovery procedures for state and local government agencies. j. Specific measures to avoid impacts to native vegetation and wildlife habitats, plant and animal species, and environmentally sensitive habitat areas during oil spill response and cleanup operations. For Rail Spur construction and operation, the Plan shall specifically address measures to 1) prevent oil spills from entering the adjacent property which includes a tributary to Oso Flaco Creek, and 2) in case a spill does enter any of these water features, shall include measures to prevent a spill from reaching the waters of Oso Flaco Lake. The plan shall describe the worst case scenario for maximum oil spill volume. k. When habitat disturbance cannot be avoided, the Plan shall provide protocol and methodologies for removing contaminated vegetation from sensitive areas. Low-impact site-specific techniques such as hand-cutting contaminated vegetation, hand raking, and shoveling of contaminated soils shall be specified to remove spilled material from particularly sensitive wildlife habitats. l. When habitat disturbance cannot be avoided, the Plan shall provide stipulations for development and implementation of site-specific habitat restoration plans and to restore native plant communities to pre-spill conditions. Procedures for timely re-establishment of vegetation that replicates the habitats disturbed (or, in the case of disturbed habitats dominated by non-native species, replaces them with suitable native species) shall also be included.
Findings	With the implementation of measures to ensure spill containment, response procedures, identification of sensitive species locations and avoidance measures and restoration procedures, impacts on sensitive habitats would be reduced to less than significant.
Supportive Evidence	Implementation of the project could result in spills at the Rail Spur Project area due to mechanical failure, structural failure, corrosion, or human error during pipeline use and oil transportation to and from the Rail Spur. The Rail Spur and the proposed pipeline are immediately adjacent to sensitive coastal scrub habitat and approximately 500 feet from a tributary channel to Oso Flaco Creek. Crude oil or oily water spills during the rainy season have the potential to affect large areas of coastal scrub and adjacent property with riparian habitat. In the unlikely event that spilled oil did reach sensitive habitat, the oiled vegetation and soils would likely need to be removed and taken to a landfill. Cleanup activities that result in the removal of vegetation would require restoration of native habitat following cleanup. The level of impact would depend on the type, size, and location of the spill, the types of habitats and species affected, and cleanup methods. The potential for oil spills is already present within the existing SMR, but the potential to impact sensitive habitats would increase as the Rail Spur project would be located in close proximity to coastal scrub habitat. Even though the likelihood of oil impacting sensitive habitat is low, it would be considered a potentially significant impact. With the implementation of mitigation measure BIO-7 and the design features of the rail spur and unloading racks, potential oil spill impacts within the SMR site would be less than significant

BIO Impact 8 (BIO.8) - Impacts to Nesting Birds and Burrowing Owls
Proposed construction and operational activities could result in disturbance and mortality to nesting migratory bird

BIO Impact 8 (BIO.8) - Impacts to Nesting Birds and Burrowing Owls	
species and overwintering burrowing owl.	
Mitigation	BIO-8a Prior to and during construction, the applicant shall avoid disturbance of bird breeding and nesting activities if construction activities are scheduled to occur during the typical bird nesting season (February 15 and September 1). A qualified biologist shall also be retained to conduct a pre-construction survey on a weekly basis throughout the breeding season only during construction for the purpose of identifying potential bird nesting activity. Should construction continue to occur beyond September 1, a qualified biologist shall conduct a bi-weekly survey during the wintering season for overwintering use by burrowing owl. If no nesting activities or overwintering burrowing owl are detected within the proposed work area, noise-producing construction activities may proceed and no further mitigation is required. If nesting activity or overwintering burrowing owl are detected during pre-construction nesting surveys or at any time during the monitoring of construction activities, the following shall occur: a. Work activities within 300 feet (500 feet if raptors) shall be delayed. CDFW and/or USFWS shall be contacted to determine the appropriate biological buffer distance around active nest sites. b. Construction activities will be prohibited within the buffer zone until a biologist determines that the young birds have fledged and left the nest, or overwintering burrowing owl is no longer utilizing the burrow. The results of the surveys shall be immediately submitted to the CDFW and the County, demonstrating compliance with the Migratory Bird Treaty Act of 1918. c. If destruction of occupied burrows is unavoidable during the non-breeding season, or if burrowing owls must be translocated during the non-breeding season, a Burrowing Owl Exclusion Plan shall be developed by a qualified biologist following the guidance of the CDFW Staff Report on Burrowing Owl Mitigation (2012). BIO-8b To mitigate for the loss of burrowing owl habitat, a minimum of 26.5 acres of suitable burrowing owl foraging and nesting habitat shall be provided in perpetuity through an easement prior to any project construction activities. If feasible, the protected lands shall occur within the boundaries of the Phillips 66 property or lands immediately adjacent to any known burrow site. At a minimum, the mitigation lands shall include similar vegetative attributes as the impact area, be of sufficiently large acreage and include the presence of fossorial mammals. Mitigation lands for burrowing owl may overlap with lands which are designated for restoration under the Dune Habitat Restoration Plan. Should there be any overlap, neither mitigation effort should negatively affect the goals and success criteria of the other. The location of the protected lands shall be determined in coordination with CDFW.
Findings	With the implementation of measures to avoid birds, and measures to relocate birds and provide habitat, impacts to nesting birds and burrowing owls would be reduced to less than significant.
Supportive Evidence	Vegetation within the Rail Spur Project area provides suitable nesting habitat for a variety of ground-nesting and shrub nesting bird species. Breeding by burrowing owls along the coast in Santa Barbara and San Luis Obispo Counties has not been documented since the late 1980's and possibly early 1990's (personal communication, Brad Schram). The entire Rail Spur Project area could be considered habitat for this species. Construction of the Rail Spur Project would result in a loss of 26.5 acres of available habitat for this species and operational project activities may also adversely affect these species. Depending on the actual timing, the project may result in direct disturbance of breeding and nesting special-status bird species during vegetation removal and ground disturbance, and generation of noise and equipment use during grading and construction activities would impact adjacent breeding and nesting of special-status bird species. During the construction and operation phase, noise and lighting from the Rail Spur could deter bird species from nesting and foraging within the area. Implementation of appropriate mitigation measures would reduce the potential for disturbance of nesting and breeding special-status birds, and therefore, this impact would be less than significant

BIO Impact 9 (BIO.9) - Spread of Invasive Species	
Proposed construction activities could result in disturbance and the introduction or spread of invasive plant species.	
Mitigation	BIO-9 Prior to issuance of grading and construction permits, the following measures shall be included on applicable plan sheets and the Dune Habitat Restoration Plan: a. During construction, the applicant will make all reasonable efforts to limit the use of imported soils for fill. Soils currently existing on-site should be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free is invasive plant species; or the material must consist of purchased clean material such as crushed aggregate, sorted rock, or similar. b. During construction, the contractor shall stockpile topsoil and redeposit the stockpiled soil within disturbed areas onsite after construction of the Rail Spur is complete, or transport the topsoil to a certified landfill or other allowable location for disposal if soil cannot be used within disturbed areas onsite. c. All erosion control materials including straw bales, straw wattles, or mulch used on-site must be free of invasive species seed. d. The required Dune Habitat Restoration Program shall incorporate an invasive species control program.
Findings	With the implementation of measures to limit soil import and criteria for erosion control materials, impacts from the spread of invasive species would be reduced to less than significant.
Supportive Evidence	Project construction activities would include a large amount of grading activities and stockpiling of soils within the boundaries of the Rail Spur Project area. Implementation of these project elements would require removing and replacing soil that contains seeds of invasive plant species. Disturbance of the soil containing invasive species seeds could facilitate the spread of invasive species in and out of the Rail Spur Project area. Implementation of mitigation measure BIO-9 would reduce the potential for the introduction and spread of invasive species; therefore, this impact would be considered less than significant

9.5 CULTURAL RESOURCES (CLASS II)

CR Impact 1 (CR.1) - Disturbance of Known Cultural Sites	
Grading and excavation associated with the construction of the emergency vehicle access road (EVA) could result in the disturbance and destruction of a portion of CA-SLO-1190.	
Mitigation	CR-1a Prior to issuance of grading and construction permits, the Applicant shall submit plans showing a modified road alignment for the Emergency Vehicle Access (EVA) road to the Department of Planning and Building for review and approval. Grading and construction of the EVA shall avoid all ground disturbing activities within the previously identified boundary of CA-SLO-1190. The plans shall note the boundaries of the site as an Environmentally Sensitive Area (ESA) and shall include a 50-foot buffer around the ESA. No grading, storage of materials or equipment, or use of equipment shall occur within the ESA. CR-1b Prior to issuance of grading and construction permits, the Applicant shall submit an Archaeological Monitoring Plan to the Department of Planning and Building for review and approval. The plan shall include, at minimum: a. List of personnel involved in the monitoring activities including a Native American monitor;

CR Impact 1 (CR.1) - Disturbance of Known Cultural Sites	
	b. Clear identification of what portions of the project area in relation to CA-SLO-1190 shall be monitored; c. Description of how the monitoring shall occur; d. Description of monitoring frequency; e. Description of resources expected to be encountered; f. Description of circumstances that would result in the "work diversion," in the case of discovery, at the project site; g. Description of procedures for diverting work on the site and notification procedures; and h. Description of monitoring reporting procedures. CR-1c A County approved archaeological monitor shall be present during all ground disturbing construction activities within intact native soil (i.e., undisturbed soils) within 300 feet of the previously identified boundary of CA-SLO-1190, and as noted in the approved Archaeological Monitoring Plan. CR-1d Upon completion of all monitoring and mitigation activities required by CR-1 through CR-5, and prior to final inspection or occupancy, whichever occurs first, the Applicant shall submit to the Department of Planning and Building a report summarizing all monitoring and mitigation activities and confirming that all recommended mitigation measures have been met.
Findings	With the implementation of road re-alignments to avoid the cultural resources and monitoring, impacts on cultural sites would be reduced to less than significant.
Supportive Evidence	The cultural resource background research did reveal the presence of previously identified prehistoric archaeological site CA-SLO-1190 adjacent to the EVA route. The cultural resources survey confirmed the presence of artifacts associated with CA-SLO-1190 within the proposed EVA route. With implementation of the recommended mitigation measures, the resource could be avoided, and this impact would be considered less than significant.

CR Impact 2 (CR.2) - Disturbance of Unknown Cultural Resources	
Grading and excavation associated with the project could result in the disturbance and destruction of unknown subsurface archeological resources.	
Mitigation	CR-2a Prior to any grading or construction, contractors involved in grading and grubbing activities shall receive training from a County-qualified archeologist. The training shall address the following issues: a. Review the types of archaeological artifacts that may be uncovered; b. Provide examples of common archaeological artifacts to examine; c. Review what makes an archaeological resource significant to archaeologists and local native Americans; d. Describe procedures for notifying involved or interested parties in case of a new discovery; e. Describe reporting requirements and responsibilities of construction personnel; f. Review procedures that shall be used to record, evaluate, and mitigate new discoveries; g. Describe procedures that would be followed in the case of discovery of disturbed as well as intact human burials and burial-associated artifacts; and h. Employees completing this training shall be given a special helmet sticker or card to show they have completed the training, where the sticker/card shall be kept with them at all times while at the work site. CR-2b Prior to issuance of grading and construction permits, the Applicant shall submit an

CR Impact 2 (CR.2) - Disturbance of Unknown Cultural Resources	
	Archaeological Monitoring Plan to the Department of Planning and Building for review and approval. The plan shall include, at minimum: a. List of personnel involved in the monitoring activities including a Native American monitor; b. Description of how the monitoring shall occur; c. Description of monitoring frequency; d. Description of circumstances that would result in the "work diversion," in the case of discovery, at the project site; e. Description of procedures for diverting work on the site and notification procedures; and f. Description of monitoring reporting procedures. CR-2c A County approved archaeological monitor shall be present during all ground disturbing construction activities within intact native soil (i.e., undisturbed soils) as noted in the approved Archaeological Monitoring Plan.
Findings	With the implementation of training and monitoring, impacts to unknown subsurface archeological resources would be minimized and impacts would be reduced to less than significant.
Supportive Evidence	Although no potentially significant archaeological resources were identified within the project area during the cultural resources survey of the project, there is the possibility that unrecorded buried archaeological material could exist and be encountered during grading, clearing, grubbing, and/or other construction activities. If intact cultural remains are encountered during grading, clearing, grubbing, and/or other construction activities, the potential for destruction of these potential unknown finds would be a potentially significant impact on cultural resources. Given the extent of disturbance within the project area, archaeological monitoring shall focus on areas of intact native soils, which would be identified in the Archaeological Monitoring Plan prepared for the project. In addition to preparation and implementation of an Archaeological Monitoring Plan, cultural resources shall be included in the environmental training session for all construction staff to reduce the potential destruction of unanticipated resources. With implementation of the above measure, this impact would be considered less than significant

CR Impact 3 (CR.3) - Disturbance to Human Remains	
Unanticipated disturbance to human remains due to construction.	
Mitigation	CR-3 If human remains are exposed during construction, the Applicant shall notify the County Environmental Coordinator immediately and comply with State Health and Safety Code Section 7050.5, which states that no further disturbance shall occur until the County Coroner has been notified and can make the necessary findings as to origin and disposition of the remains pursuant to Public Resources Code 5097.98. Construction shall halt in the area of the discovery of human remains, the area shall be protected, and consultation and treatment shall occur as prescribed by law.
Findings	With the implementation of notification requirements, impacts to unknown human remains would comply with current laws and impacts would be reduced to less than significant.
Supportive Evidence	According to CEQA, "Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section (7050.5) Health and Safety Code." The PRC also ensures the protection of human remains (Sections 5097.94, 5097.98, and 5097.99). Section 22.10.040 of San Luis Obispo County's Land Use Ordinance has similar stipulations stating that "(i)n the event archeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the County Coroner

CR Impact 3 (CR.3) - Disturbance to Human Remains	
	shall be notified in addition to the Department so proper disposition may be accomplished." The Coroner will determine the origin of the remains and, if determined to be of Native American origin, notify the Native American Heritage Commission, which will determine and notify a most likely descendant. The most likely descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. If human remains were encountered during grading, the potential for disturbance of these remains would be potentially significant. Implementing mitigation measure CR-3 would reduce the impact of potentially encountering and disturbing human remains during grading and excavation to less than significant.

CR Impact 5 (CR.5) - Disturbance to Paleontological Resources	
Unanticipated disturbance to paleontological resources.	
Mitigation	CR-5 If any paleontological resources are encountered during ground-disturbing activities, activities in the immediate area of the find shall be halted and the discovery assessed. A qualified paleontologist shall be retained to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology. A paleontological resource impact mitigation program for treatment of the resources shall be developed and implemented if paleontological resources are encountered.
Findings	With the implementation of notification and inspection procedures, impacts to paleontological resources would be reduced to less than significant.
Supportive Evidence	At present, there are no known paleontological resources or unique geologic formations or sites located within the project area. However, it is possible that paleontological resources could be discovered during ground disturbing activities associated with project construction. If unanticipated paleontological resources were disturbed it could potentially be a significant impact. Implementing mitigation measure CR-4, if needed, would reduce the impact of potentially encountering and disturbing paleontological resources during grading and excavation to less than significant.

9.6 GEOLOGICAL RESOURCES (CLASS II)

GR Impact 1 (GR.1) - Seismic Shaking Equipment Damage	
Seismically induced ground shaking could damage proposed structures and infrastructure, potentially resulting in loss of property, risk to human health and safety, and oil spills.	
Mitigation	GR-1a At the time of application for grading and construction permits, the proposed rail spur, unloading facility, and oil pipeline infrastructure shall be designed and constructed to withstand anticipated horizontal and vertical ground acceleration in the Project area, based on the California Building Code. The calculated design base ground motion for project components shall consider the soil type, potential for liquefaction, and the most current and applicable seismic attenuation methods that are available. GR-1b At the time of application for construction permits, all surface facilities and equipment shall have suitable foundations and anchoring design, surface restraints, and moment-limiting supports to withstand seismically induced groundshaking. GR-1c A Registered Civil Engineer and Certified Engineering Geologist shall complete an updated geotechnical investigation specific to the proposed rail spur and oil pipeline site,

GR Impact 1 (GR.1) - Seismic Shaking Equipment Damage	
	as previous on-site geotechnical investigations were completed in other areas of the refinery. All geotechnical recommendations provided in the report shall be followed during grading and construction at the Project Site. The updated geotechnical evaluation shall include, but not be limited to, an estimation of both vertical and horizontal anticipated peak ground accelerations, as well as an updated liquefaction analysis. GR-1d The geotechnical report shall be completed prior to completion of the final Project design and shall be submitted to the County of San Luis Obispo Building Division for review and approval. The Project design must conform to the recommendations within the updated geotechnical evaluation. The geotechnical recommendations would likely include, but not be limited, to the following: a. Proposed structures shall be designed and constructed to withstand anticipated horizontal and vertical ground acceleration in the Project area, based on the California Building Code. b. Proposed structures shall be designed and constructed to withstand the effects of liquefaction, as applicable, based on the California Building Code. c. The Project Site shall be cleared of unsuitable materials and graded to provide a firm base for compacted fill, as applicable. Ground surfaces to receive compacted fill shall be prepared by removing organics, rubble, debris, existing disturbed fill, artificial fill, unconsolidated materials, and soft or disturbed soils. Removal of unconsolidated materials would likely include several feet of overexcavation. d. All fill material shall be placed in uniform lifts not exceeding 8 inches in its loose state and compacted to a minimum of 90 percent relative compaction, as determined by the latest ASTM Test Designation D-1557. e. Due to the low cohesion of the onsite soils (i.e., dune sands), the potential need for mechanical stabilization of fill slopes shall be evaluated and implemented, as applicable, to attain the acceptable factors of safety for stability. Mechanical stabilization may include Mechanically Stabilized Earth (MSE), which includes use of engineered geogrids placed at 2-foot vertical spacing within fill slopes. Cut slopes may similarly require construction of overlying stability fills, using MSE. f. Surface runoff shall be directed away from slopes and foundations and collected in lined ditches or drainage swales, via non-erodible engineered drainage devices. Fill slopes and stability fills, as applicable, shall be provided with subsurface drainage for stability. GR-1e At the time of application for grading and construction permits, all proposed slope, building pad, and rail track bed construction shall be properly engineered, with fill placed in accordance with requirements of the current County of San Luis Obispo Building and Construction Ordinance (Title 19 of the San Luis Obispo County Code), and California Building Code. GR-1f During construction, the proposed aboveground oil pipeline shall be anchored to prevent pipeline movement, as determined by a California Registered Civil Engineer, in accordance with California Building Code, San Luis Obispo County requirements, and the American Public Works Association Greenbook. GR-1g At the time of application for construction permits, the facilities and equipment, including spill containment vaults and Project-related pipelines, shall be designed for predicted, site-specific seismic loading in accordance with applicable codes, including the California Building Code. GR-1h The Applicant shall cease rail car unloading and pipeline oil conveyance following any perceptible (i.e., felt by humans) seismic event and inspect all project-related facilities, equipment, and pipelines for damage prior to restarting operations. GR-1i Consistent with California Building Code Section 3401.2, all project-related facilities, equipment, and pipelines shall be maintained in conformance with the California Building Code edition under which it was installed. Annual inspections shall be completed by a California Registered Civil Engineer to verify that project components have not been damaged or compromised by seismic induced ground shaking, corrosion, soil erosion, soil settlement, or other geologic hazards.

GR Impact 1 (GR.1) - Seismic Shaking Equipment Damage	
Findings	With the implementation of seismic design, inspection and maintenance requirements, impacts to equipment due to seismic shaking would be reduced to less than significant.
Supportive Evidence	San Luis Obispo County is located in a geologically complex and seismically active region that is subject to earthquakes and potentially strong ground shaking. The proposed rail spur, unloading facility, and associated oil pipeline would be susceptible to damage as a result of an earthquake on these regional faults. Potential seismic impacts and associated damage to structures from a major earthquake on the nearby Orcutt-Casmalia or Hosgri faults, or any other regional fault, would be considered potentially significant. Implementing mitigation measures GR-1a through GR-1i would ensure equipment design can withstand seismic shaking, and would reduce the severity of seismic-related impacts to less than significant

GR Impact 2 (GR.2) - Increased Erosion	
Project grading would result in changes in topography, potentially unstable slopes, and potential increased erosion.	
Mitigation	GR-2 During construction and operations, the Applicant shall implement a Storm Water Pollution Prevention Plan using Best Management Practices and monitor and maintain stormwater pollution control facilities identified in the Storm Water Pollution Prevention Plan, in a manner consistent with the provisions of the Federal Water Pollution Control Act (National Pollutant Discharge Elimination System Program). Stormwater management protection measures and wet weather measures shall be designed by a California registered, Qualified Storm Water Pollution Prevention Plan Developer. In addition, a California registered, Qualified Storm Water Pollution Prevention Plan Practitioner shall oversee and monitor construction and operational Best Management Practices and stormwater management, in accordance with the State General Construction Permit and the Central Coast Regional Water Quality Control Board. Conventional measures typically recommended by the State Water Resource Board and the California Department of Transportation include the following: a. Implement permanent erosion and sediment control measures: Minimize grading, clearing, and grubbing to preserve existing vegetation; Use mulches and hydroseed, free of invasive plants, to protect exposed soils; Use geotextiles and mats to stabilize soils; Use drainage swales and dissipation devices; and Use erosion control measures outlined in the California Stormwater Quality Association Best Management Practice Handbook. b. Implement temporary Best Management Practice mitigation measures: Use silt fences, sandbags, and straw wattles; Use temporary sediment basins and check dams; and Use temporary Best Management Practices outlined in the California Stormwater Quality Association Best Management Practice Handbook. c. Implement tracking control Best Management Practices to reduce tracking sediment offsite. Use stabilized construction entrance and exit with steel shakers; Use tire wash areas; and Use tracking control Best Management Practices outlined in the California Stormwater Quality Association Best Management Practice Handbook. Personnel at the site shall be trained in equipment use and containment and cleanup of an oil spill. Dry cleanup methods, such as absorbents, shall be used on paved and impermeable surfaces. Spills in dirt areas shall be immediately contained with an earthen dike and the contaminated soil shall be dug up and discarded in accordance with local and state regulations.

GR Impact 2 (GR.2) - Increased Erosion	
Findings	With the implementation of storm water pollution measures, inspection and maintenance requirements, impacts due to increased erosion would be reduced to less than significant.
Supportive Evidence	Slope gradients within the proposed area of ground disturbance are predominantly gentle, with localized steep slopes along the proposed pipeline alignment. The proposed railcar unloading area consists of a relatively flat graded area used by the existing coke facility; however, the proposed rail spur alignment roughly trends along a broad east-west trending ridge with undulating topography. Approximately 135,771 cubic yards of cut and 114,075 cubic yards of fill would be required to establish the proposed rail spur final grade. As a result, the topography would be altered, primarily along the proposed rail spur alignment. Areas to be graded would initially be cleared of vegetation, thus exposing the sandy soils to increased wind and water erosion during construction. Areas not paved during construction would be susceptible to increased wind and water erosion following construction. Implementation of Mitigation Measures GR-1c, GR-1d, and GR-1e would ensure that the Rail Spur Project is consistent with goals and policies of the County's Safety Element relating to geologic hazards. Implementing mitigation measures GR-1c, GR-1d, GR-1e, and GR-2 would reduce the severity of slope stability- and erosion-related impacts to less than significant.

GR Impact 3 (GR.3) - Expansive Soils	
Expansive soils, if present, could damage proposed foundations.	
Mitigation	GR-3 Implement Mitigation Measure GR-1c to confirm the absence of expansive soil.
Findings	With the implementation of geotechnical evaluations and associated requirements, impacts due to expansive soils would be reduced to less than significant.
Supportive Evidence	Soil expansion generally occurs in clay rich soils as a result of wetting of the soil. The soils subsequently contract when dry, resulting in widespread cracking of the soil. This alternating sequence of soil expansion and contraction can result in damage to overlying foundations. However, because the Project Site soils consist of dune sand, the likelihood of expansive soils is low. However, in the absence of site-specific soils testing, impacts are potentially significant. Implementing mitigation measure GR-1c would reduce the severity of potential expansive soil-related impacts to less than significant

9.7 NOISE AND VIBRATION (CLASS II)

N Impact 1 (N.1) - Construction Noise	
Construction activities would generate noise that could exceed San Luis Obispo thresholds.	
Mitigation	N-1 The Applicant shall ensure that all construction activity at the Project Site is limited to the hours of 7:00 A.M. to 9:00 P.M., Monday through Friday, and 8:00 A.M. to 5:00 P.M. on Saturdays and Sundays. This restriction shall be a note placed on all construction plans.
Findings	With the implementation of limits on evening and nighttime construction activities, impacts due to construction noise would be reduced to less than significant.
Supportive	Noise impacts during construction would result from construction equipment with internal

Evidence	combustion engines (e.g., backhoes, cranes) operating at the site for grading, earth moving and the installation of project related equipment. The County Code exempts construction activities from the noise standards between the hours of 7:00 a.m. and 9:00 p.m., Monday through Friday, and between 8:00 a.m. and 5:00 p.m. Saturdays and Sundays. If construction activities were to occur outside of these times they would be subject to the County noise standards. As the data in the EIR shows, all of the nighttime noise levels at the sensitive receptors would exceed the 45 dBA hourly threshold. Therefore, if construction was to occur outside of the allowable hours specified in the County Code, the impacts would be significant. Limiting the hours of construction activities to the hours specified in the County Code would reduce the impact of construction noise to less than significant

N Impact 2 (N.2) - Operational Noise	
Operational activities would generate noise levels that exceed San Luis Obispo thresholds.	
Mitigation	N-2a Prior to issuance of the Notice to Proceed, the Applicant shall develop for review and approved by the County Department of Building and Planning a Rail Unloading and Management Plan that addresses procedures to minimize noise levels at the rail spur, including but not limited to the following: 1) All locomotives operating to the east of the unloading rack area between the hours of 10 P.M. and 7 A.M. shall be limited to a combined total of 100 locomotive-minutes (e.g., 2 locomotives for 50 minutes each or 1 locomotive for 100 minutes, etc. including switching and idling); 2) Arriving trains that enter the refinery between the hours of 10 P.M. and 7 A.M. and are not being immediately unloaded shall shutdown all locomotives once the train is on the refinery property; 3) No horns, annunciators or other signaling devices are allowed unless it is an emergency. If horns and annunciators are needed for worker safety, then warning devices shall be developed, to CPUC standards, to alert the safety of plant personnel when trains are in motion without an audible warning device; 4) No horns are to be used on the mainline siding track adjacent to the refinery unless it is an emergency; 5) Any train repairs shall be conducted only between the hours of 7 A.M. and 7 P.M.; and (6) The Plan shall include a copy of the agreement between the Applicant and UPRR demonstrating the two parties have entered into a legally binding contractual arrangement ensuring implementation of the above requirements. N-2b Prior to issuance of the Notice to Proceed, the Applicant shall provide to the County Department of Planning and Building evidence that each unloading pump and associated electric motor can achieve a noise level no greater than 71 dBA at 50 feet, including the installation of pump enclosures, or similar devices if necessary. N-2c Prior to issuance of the Notice to Proceed, the Applicant shall submit to the County Department of Planning and Building for review and approval a Noise Monitoring Plan that outlines procedures for regular noise monitoring of the operational aspect of the Rail Spur facility. The Plan shall specify at a minimum the duration and location of monitoring activities with and without trains present at the SMR site. The monitoring locations shall include at least one location within 100 to 200 feet of the unloading activities and a monitoring location located at the property line of the nearest noise-sensitive receptor. The noise monitoring shall be conducted within one month of rail spur operations commencing. The results of the monitoring shall be reported to the County within one month of monitoring completion. If the results of the noise monitoring indicate that noise levels are above the thresholds, then the Applicant shall amend the Rail Unloading and Management Plan with additional mitigation measures that would reduce noise levels below County thresholds. Additional mitigation could include, but not be limited to, additional limits on the times of unloading activities.
Findings	With the implementation of limits on unloading activities, nighttime activities and ensuring equipment is low-noise equipment, impacts from operational noise would be reduced to less than significant.
Supportive	Noise generated during operations would result from a number of different sources and

Evidence	activities. These would include train trains arriving; trains switching activities; pumps operating to unload rail cars, transformers, an HVAC system and an air compressor. Noise levels could increase at night by as much as 10.9 dBA at the closest area to the Project Site. However, for noise-sensitive receptors, the largest nighttime noise increase would be along Olivera Street (which has residences considered noise-sensitive receptors) and at the west end of Louise Lane. Noise levels at Monadella Street would increase above the allowable nighttime noise threshold of 45 dBA. The exceedances of the noise thresholds at noise-sensitive receptors are a potentially significant impact. Mitigation measures recommended to reduce exceedances include modifications to the operational procedures to minimize locomotive use of the east end of the rail spur and a reduction in pumping noise. Limiting the activities east of the unloading area closer to receptors, ensuring stationary equipment operates at or below the prescribed noise limits, and conducting monitoring to ensure compliance would ensure that impacts are less than significant.

9.8 PUBLIC SERVICES AND UTILITIES (CLASS II)

PS Impact 3 (PS.3) - SMR Fire Protection and Emergency Response Services	
The Rail Spur Project would increase demand for fire protection and emergency response services at the SMR.	
Mitigation	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

PS Impact 3 (PS.3) - SMR Fire Protection and Emergency Response Services	
	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.
Findings	With the implementation of updated response plans, reimbursement agreements and training of SMR responders and Cal Fire/County Fire responders, impacts would be reduced to less than significant.
Supportive Evidence	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. Depending upon the extent of the event, Cal Fire and other local fire jurisdictions would need to respond. 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 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. 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.

9.9 TRANSPORTATION AND CIRCULATION (CLASS II)

TR Impact 1 (TR.1) - Construction Traffic	
Traffic associated with the construction phase of the Rail Spur Project could impact traffic on roadways in the Project vicinity due to construction traffic.	
Mitigation	TR-1 Prior to issuance of grading permits, the Applicant shall develop a Construction Traffic Management Plan for review and approval by the County Public Works Department and CalTrans. The plans shall include at least the following items: a. A scheduling plan showing operational schedules to minimize traffic congestion during peak hours. The plan shall limit project related traffic to and from the refinery during the peak AM and PM hours. This plan shall note the schedule for completing various construction activities, and to the extent feasible avoid an overlap of the construction of the rail spur/unloading area and pipeline construction. The plan shall show the hours of operation to minimize traffic congestion during peak hours. b. Willow Road shall be use for truck deliveries to and from the refinery.

TR Impact 1 (TR.1) - Construction Traffic	
	c. Monitoring program for street surface conditions so that damage or debris resulting from construction of the Project can be identified and corrected by the Applicant. d. A traffic control plan showing proposed temporary traffic control measures, if any. e. A delivery schedule for construction materials, including an evaluation of the feasibility of transporting construction materials to the site by rail.
Findings	With the implementation of construction traffic time limits, monitoring of street surface conditions and planning, impacts due to construction traffic would be reduced to less than significant.
Supportive Evidence	The project would generate construction traffic, with trucks transporting equipment and materials to and from the site and employees accessing the site. Trucks would access the site via Willow Road and the Highway 101/Willow Road interchange. Willow Road is designated as a truck route by the County of San Luis Obispo for the SMR. The highest intensity of construction traffic would occur during the construction of the unloading area and pipelines which would generate up to 595 daily one-way passenger car equivalent trips. This overlaps with the portions of the grading, soil transport, and rail construction phases. The worst case of this overlap would be simultaneous grading with construction of the rail line, the pipeline, and the unloading area. These activities occurring simultaneously would result in up to 1,369 daily PCE trips. All of the study intersections operate acceptably at LOS C or better with the addition of construction traffic. The eastbound 95th percentile queue at the Willow Road/Pomeroy Road intersection would exceed ten vehicles during the PM peak hour with the project. This is the queue that would not be exceeded 95 percent of the time. This is a potentially significant impact. The preparation and implementation of an adequate construction traffic management plan would limit peak hour trips and would reduce impact TR.1 to less than significant.

9.10 WATER RESOURCES (CLASS II)

WR Impact 1 (WR.1) - Construction Water Quality	
Project grading and construction could degrade surface water and groundwater quality.	
Mitigation	WR-1 During construction, oil and other chemical spills shall be contained and cleaned according to measures outlined in the California Stormwater Quality Association Best Management Practice Handbook. Best Management Practices would likely include, but not be limited, to the following: a. Ensure minor spill containment and clean up equipment is readily available in areas of demolition, construction, and operations. b. Store petroleum products in covered areas with secondary containment dikes. c. If vehicle maintenance and fueling occur onsite, use a designated area and/or secondary containment, located away from drainage courses, to prevent the run-on of storm water and the runoff of spills. d. Regularly inspect onsite vehicles and equipment for leaks, and repair immediately. e. Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids. f. Use absorbent materials on small spills.
Findings	With the implementation of construction BMPs, availability of spill containment equipment, vehicle fueling and maintenance procedures and secondary containment, impacts due to construction water quality would be reduced to less than significant.

WR Impact 1 (WR.1) - Construction Water Quality	
Supportive Evidence	Project demolition, grading, and construction could result in incidental spills of petroleum products or other contaminants that could adversely affect water quality from demolition equipment, excavation and grading equipment, concrete washout, construction chemicals, cleaning solvents, pesticides, and construction debris. Any of these contaminants would potentially impair local surface water runoff. Implementing mitigation measures GR-2 (Storm Water Pollution Plan) and WR-1 would ensure appropriate containment and response to spills and would reduce construction impacts to surface and groundwater quality to less than significant.

WR Impact 2 (WR.2) - Spill Impacts on Surface and Ground Water	
A rupture or leak from the tanker rail cars, unloading facility, or oil pipeline during operation of the Rail Spur Project could substantially degrade surface water and groundwater quality.	
Mitigation	WR-2 Prior to the County's issuance of a Notice to Proceed, the existing Santa Maria Refinery Spill Prevention Control and Countermeasure Plan (SPCCP) shall be amended to reflect operation of the rail car unloading facility and associated oil pipeline. See mitigation measure BIO-7 for the detailed SPCCP requirements for the rail unloading operations.
Findings	With the implementation of operational BMPs, availability of spill containment equipment, vehicle fueling and maintenance procedures and secondary containment, impacts from spills would be reduced to less than significant.
Supportive Evidence	Rail car unloading and conveyance of oil through a proposed aboveground pipeline could result in spills due to geologic hazards, mechanical failure, structural failure, corrosion, or human error. Such spills could potentially result in onsite surface water quality and/or shallow groundwater quality impacts. Small leaks or spills, which are contained and remediated quickly, may have minor or negligible impacts to water resources. In contrast, large spills such as from unloading facility equipment, rail cars, or the oil pipeline, could potentially spread to local drainages and/or groundwater and could degrade water quality, with potential long-term impacts to beneficial uses and biological resources. Although the potential for oil spills currently exists at the SMR, the Rail Spur Project increases the potential for leaks or spills, and associated water quality impacts, due to operation of the unloading facility and associated pipeline. Mitigation measures WR-2 would assure that spills are contained within the rail unloading facility and that adequate spill response equipment is at the SMR and that spills are cleaned up quickly, which would reduce impacts to water quality. Implementing mitigation measures WR-2 along with the design features of the rail spur and unloading racks, potential oil spill impacts within the SMR site would reduce spill-related impacts to surface and groundwater quality to less than significant.

10.0 FINDINGS FOR IMPACTS IDENTIFIED AS SIGNIFICANT AND UNAVOIDABLE

The finding below is for Class I impacts. Class I impacts are impacts that are significant and unavoidable. The significant effects (Impacts) are stated fully in the Final EIR. The following is a brief explanation of the rationale for this finding for this impact:

10.1 AGRICULTURAL RESOURCES (CLASS I)

AR Impact 5 (AR.5)- Mainline Spill	
The project could result in effects that impair adjacent agricultural uses along the UPRR mainline in the event of a derailment and/or spill, including the generation of contaminated air emissions, soil and water contamination, and increased risk of fire, which have the potential to adversely affect adjacent agricultural areas.	
Mitigation	AR-5 Implement mitigation measures PS-4a through PS-4e (noticing, railcar design, first responder funding and training) and BIO-11 (Oil Spill Contingency Plan).
Findings	Mitigation measures would reduce the severity of impacts, but impacts to agricultural resources along the mainline due to a train derailment and/or spill would remain significant and unavoidable.
Supportive Evidence	The addition of up to three train round trips per week on the UPRR mainline routes would increase the potential for spills or fire-related impacts on adjacent agricultural soils in the event of an accident, derailment or other upset conditions during transport along the mainline routes. The mainline rail routes pass through numerous prime, statewide or local important farm lands. Some short-term impacts could be minimized through site remediation, clean-up, and restoration of the agricultural resources (i.e., replanting, removal of contaminated soils). However, impacts related to water source contamination and loss of some specialty crops (i.e., old growth vines that have value in their age) would be more difficult to mitigate. The loss of some crops, prime soils, and other agricultural resources may not be mitigable through restoration and replacement in kind. Therefore, impacts to agricultural resources associated with an oil spill along the mainline routes would be considered potentially significant. Implementation of mitigation measures would reduce the likelihood of an oil spill and the ability of first response agencies to respond to a crude oil spill. Even with implementation of these mitigation measures oil spill impacts to agricultural resources along the mainline rail routes would remain significant and unavoidable depending upon the location of the spill.

10.2 AIR QUALITY AND GREENHOUSE GASES (CLASS I)

AQ Impact 2 (AQ.2)- Emissions of ROG+NO_x and DPM within SLOC (SMR and Mainline)	
Operational activities associated with the Rail Spur Project within SLOC (i.e., on the project site (SMR) and on the mainline within SLOC) would generate criteria pollutant emissions that exceed SLOCAPCD thresholds.	
Mitigation	AQ-2a Prior to issuance of Notice to Proceed, the Applicant shall provide a mitigation, monitoring and reporting plan updated annually. The plan shall investigate methods for reducing the onsite and offsite emissions, both from fugitive components and from locomotives or from other SMR activities (such as the diesel pumps, trucks, and compressors to reduce DPM). In addition, locomotive emissions shall be mitigated to the extent feasible through contracting arrangements that require the use of Tier 4 locomotives or equivalent emission levels. The plan shall indicate that, on an annual basis, if emissions of ROG+NO_x and DPM with the above mitigations still exceed the thresholds, as measured and confirmed by the SLOCAPCD, the Applicant shall secure SLOCAPCD-approved onsite and/or offsite emission reductions in ROG+NO_x emissions or contribute to new or existing programs to ensure that project-related ROG+NO_x emissions within SLO County do not exceed the SLOCAPCD thresholds. Coordination with the SLOCAPCD should begin at least six (6) months prior to issuance of the Notice to Proceed for the Project to allow time for refining calculations and for the SLOCAPCD to review and approve any required ROG+NO_x emission reductions. AQ-2b Prior to issuance of Notice to Proceed, the Applicant shall implement a program, including training and procedures, to limit all locomotive onsite idling to no more than 15 consecutive minutes except when idling is required for safety purposes. Locomotive idling

AQ Impact 2 (AQ.2)- Emissions of ROG+NO_x and DPM within SLOC (SMR and Mainline)	
	records shall be maintained and provided to the SLOCAPCD on an annual basis, along with training materials and training records.
Findings	Mitigation measures would reduce the severity of impacts, but impacts to air quality within SLOC would remain significant and unavoidable.
Supportive Evidence	Emissions of ROG+NO_x would be exceeded for both the daily and the annual emissions thresholds, which would be considered a significant impact. Diesel particulate emissions would exceed the daily threshold, which would be considered a significant impact. Both fugitive dust and CO emissions would be emitted at levels below the thresholds. The primary source of the emissions of ROG+NO_x and diesel particulate would be the diesel powered train locomotives while operating on the refinery site and along the mainline within SLOC. Use of Tier 4 engines for the locomotives and limiting idling time at the refinery to no more than 15 consecutive minutes, as per the mitigation measures, reduces the annual ROG+NO_x and DPM emissions. Even with this mitigation ROG+NO_x and DPM emissions would remain significant for the peak day emissions. Even with these emission reductions the Applicant would still need to provide emission reduction credits for ROG+NO_X. With the implementation of the mitigation measures including the application of ROG+NO_x emission reduction credits, impacts for criteria ROG+NO_x pollutants would be reduced to less than significant. Impacts from DPM would remain above the thresholds. For the mainline rail emissions in SLOC it is possible that contractually the Applicant could require the use of lower emission locomotives such as Tier 4 locomotives. However, since these are operated by UPRR on UPRR track a requirement that the Applicant enter into this type of contractual provision may be preempted by Federal law. Due to the possible preemption by Federal law which could prevent the mitigation measures from being implemented (outside of the SMR facility boundary), emission reduction credits and reductions in DPM through the use of Tier 4 locomotives might not be achievable and impacts from criteria pollutant emissions within SLOC would remain significant and unavoidable

AQ Impact 3 (AQ.3)- Mainline Emissions of ROG and NO_x outside of SLOC	
Operational activities of trains along the mainline rail route outside of SLOC associated with the Rail Spur Project would generate criteria pollutant emissions that exceed thresholds.	
Mitigation	AQ-3 Prior to issuance of the Notice to Proceed, the Applicant shall provide a mitigation, monitoring and reporting plan. The plan shall investigate methods for reducing the locomotive emissions through contracting arrangements that require the use of Tier 4 locomotives or equivalent emission levels. The plan shall indicate that, on an annual basis, if the mainline rail emissions of ROG+NO_x with the above mitigations still exceed the applicable Air District thresholds, the Applicant shall secure emission reductions in ROG+NO_x emissions or contribute to new or existing programs within each applicable Air District, similar to the emission reduction program utilized by the SLOCAPCD, to ensure that the main line rail ROG+NO_x emissions do not exceed the Air District thresholds for the life of the project. The Applicant shall provide documentation from each Air District to the San Luis Obispo County Planning and Building Department that emissions reductions have been secured for the life of the project prior to issuance of the Notice to Proceed.
Findings	Mitigation measures would reduce the severity of impacts, but impacts to air quality in areas outside of SLOC would remain significant and unavoidable.
Supportive Evidence	Trains traveling to the Refinery could come from the north or the south using the UPRR coastal track. Emissions of ROG and NO_x would be emitted at levels above the daily CEQA thresholds established by most of the air districts along the routes. The source of these emissions would be the diesel powered locomotives. This would be considered a significant

AQ Impact 3 (AQ.3)- Mainline Emissions of ROG and NO_x outside of SLOC	
	impact. Implementation of the use of Tier 4 engines in mitigation measures AQ-3 would serve to reduce emissions on the mainline track. With these reductions the criteria emissions associated with the mainline rail operations would remain significant in some air districts and would be reduced to below the respective thresholds in other air districts. The remaining ROG and NO_x emissions could be mitigated by obtaining emission credits within each of the Air Districts where their respective thresholds would still be exceeded. However, it is unknown if these other Air Districts could require emission credits since train travel through their jurisdiction does not require any permitting action. Also it is unknown, if all of the potentially affected Air Districts have available emission reduction credits that can be purchased. Since mitigation measure AQ-3 may not be implemented due to Federal preemption, and it is uncertain if the other Air Districts could require emission reduction credits, the impacts associated with the mainline rail operation would remain significant and unavoidable.

AQ Impact 5 (AQ.5)- Mainline Impacts of Toxic Emissions	
Operational activities of trains along the mainline rail route associated with the Rail Spur Project would generate toxic emissions that exceed thresholds.	
Mitigation	AQ-5 Implement measure AQ-3 (Tier 4 Locomotives and/or Offsets).
Findings	Mitigation measures would reduce the severity of impacts to less than significant, but due to the potential for Federal preemption, the mitigation measures might not be applied and therefore impacts due to toxic emissions along the mainline would remain significant and unavoidable.
Supportive Evidence	Movement of the locomotives on the mainline to and from the SMR would contribute to health risks along the mainline due to the emissions of DPM. Modeling of rail emissions was conducted for a hypothetical rail mainline for a range of locomotive speeds and distances from the mainline. For three trains per week, trains traveling about 20 mph or greater the cancer risk would be below the SLOCAPCD threshold for cancer for areas outside of the railroad right-of-way. For slower speeds (when more emissions occur per length of rail due to the slower speeds), cancer risks would exceed the SLOCAPCD thresholds for cancer beyond the railroad right-of-way. There are areas along the mainline rail route that have reduced speed limits for trains that pass in proximity of sensitive receptors. For example, in the City of Davis, trains are limited to a speed of 10 miles per hour. For most of the mainline route trains are expected to have an average speeds between 30 and 40 mph, and in these areas the health risk impact would be less than significant. The use of Tier 4 locomotives would serve to reduce the toxic emissions associated with the locomotive operations along the mainline. With this mitigation the health risk would be less than the SLOCAPCD threshold for cancer for all speeds. However, given that the County may be preempted by Federal law from requiring the use of Tier 4 locomotives, the health risk impacts along the mainline rail routes would be significant and unavoidable.

AQ Impact 6 (AQ.6)- GHG Emissions (SMR and Mainline in California)
Operational activities associated with the Rail Spur Project would generate GHG emissions that exceed SLOCAPCD thresholds.

AQ Impact 6 (AQ.6)- GHG Emissions (SMR and Mainline in California)	
Mitigation	AQ-6 Prior to issuance of the Notice to Proceed, the Applicant shall provide a GHG mitigation, monitoring and reporting plan. The plan shall indicate that, on an annual basis, if GHG emissions exceed the thresholds, the Applicant shall provide GHG emission reduction credits for all of the project GHG emissions. Coordination with the San Luis Obispo Planning and Building Department should begin at least six (6) months prior to issuance of operational permits for the Project to allow time for refining calculations and for the San Luis Obispo Planning and Building to review and approve the emission reduction credits.
Findings	Mitigation measures would reduce the severity of impacts to less than significant, but due to the potential for Federal preemption, the mitigation measures might not be applied and therefore impacts due to GHG emissions within California would remain significant and unavoidable.
Supportive Evidence	Emissions of GHG at the refinery and along the mainline would result from onsite activities (locomotives, etc.), vehicles (employee automobiles and occasional truck deliveries of materials), locomotives along the mainline, and from electricity consumption (to run pumps and other equipment). The total GHG emissions within SLOC associated with the Rail Spur Project would not exceed the SLOCAPCD thresholds for GHG emissions. However, emissions within California would exceed the thresholds and therefore would be considered significant. Since the State does not have a GHG threshold, this EIR has used the SLOCAPCD threshold for determining the significance of GHG emissions. Since the operation of the crude oil trains at the SMR would be on Phillips 66 property and the trains would be operated by Phillips 66, the County can require that GHG emissions within the SMR associated with the trains be mitigated using emission reduction credits. For the mainline rail GHG emissions it is possible that contractually the Applicant could require GHG emission reduction credits. However, the County may also be preempted by Federal law from requiring emission credits for main line rail GHG emissions. Due to the possible preemption by Federal law which could prevent the mitigation measure from being implemented (outside of the SMR facility boundary), emission reduction credits might not be achievable and impacts would remain significant and unavoidable.

10.3 BIOLOGICAL RESOURCES (CLASS I)

BIO Impact 11 (BIO.11)- Mainline Spill Impacts	
Crude oil transportation along the UPRR mainline could result in a crude oil spill that impacts sensitive plant and wildlife species and wetlands.	
Mitigation	BIO-11 The Applicant's contract with UPRR, shall include a provision to provide that UPRR has an Oil Spill Contingency Plan in place for all mainline rail routes in California that could be used for transporting crude oil to the SMR. The Oil Spill Contingency Plan shall at a minimum include the following: 1. A set of notification procedures that includes a list of immediate contacts to call in the event of a threatened or actual spill. This shall include a rated oil spill response organization, the California Office of Emergency Services, California Department of Fish and Wildlife, Oil Spill Prevention and Response, and appropriate local emergency responders. 2. Identification of the resources that could be at risk from an oil spill equal to 20% of the train volume. The resources that shall be identified in the plan, and shown on route maps, include but are not limited to the following: a. Habitat types, shoreline types, and associated wildlife resources in those locations; b. The presence of state or federally-listed rare, threatened or endangered species; c. The presence of aquatic resources including state fish, invertebrates, and plants

BIO Impact 11 (BIO.11)- Mainline Spill Impacts	
	including important spawning, migratory, nursery and foraging areas; d. The presence of terrestrial animal and plant resources; e. The presence of migratory and resident state bird and mammal migration routes, and breeding, nursery, stopover, haul-out, and population concentration areas by season; f. The presence of commercial and recreational fisheries including aquaculture sites, kelp leases and other harvest areas. g. Public beaches, parks, marinas, boat ramps and diving areas; h. Industrial and drinking water intakes, power plants, salt pond intakes, and important underwater structures; i. Areas of known historical and archaeological sites (but not their specific description or location); j. Areas of cultural or economic significance to Native Americans (but not their specific description or location). k. A description of the response strategies to protect the identified site and resources at risk. l. A list of available oil spill response equipment and staging locations along the mainline tracks and shall include. m. A program for oil spill training of response staff and a requirement for annual oil spill drillings. 3. The oil spill contingency plan must be able to demonstrate that response resources are adequate for containment and recovery of 20% of the train's volume within 24 hours. In addition, within six hours of the spill the response resources shall be adequate for containment and recovery of 50% of the spill, and 75% of the spill within 12 hours. The Applicant's contract with UPRR, shall include provision that UPRR's Oil Spill Contingency Plan shall be reviewed and approved by California Department of Fish and Wildlife, Office of Spill Prevention and Response prior to delivery of crude oil by rail to the Santa Maria Refinery. In addition, the Applicant's contract with UPRR, shall include provisions to provide a copy of UPRR's Oil Spill Contingency Plan to all first response agencies along the mainline rail routes in 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.
Findings	Mitigation measures would reduce the severity of impacts, but impacts to biological resources due to a crude oil spill along the mainline would remain significant and unavoidable.
Supportive Evidence	Transportation of crude oil along the UPRR mainline transects a very wide range of natural habitats and urban areas. Based on the database query along the UPRR mainline, there are currently a minimum of 167 sensitive plant species occurrences, a minimum of 219 sensitive animal species, a minimum of 411 streams and rivers, a total of 20 sensitive habitats and a minimum of 26 water bodies and 578 wetlands documented within 300 feet of the mainline. The UPRR mainline also transects a variety of "non-sensitive" habitats that may not be unique or threatened but serve as suitable habitat to a wide range of wildlife species for the purposes of foraging and breeding. Direct impacts or secondary impacts to biological resources as a result of any trail derailment crude oil spill would be a significant impact depending upon the location of the spill. Implementation of mitigation measures would serve to reduce the likelihood of an oil spill and the ability of first response agencies to respond to a crude oil spill by having equipment properly staged, and workers properly trained in oil spill response. Even with implementation of these mitigation measures oil spill impacts to biological resources along the mainline rail routes would remain significant and unavoidable depending upon the location of the spill. Note that the County may be preempted by federal law from implementing these mitigation measures.

10.4 CULTURAL RESOURCES (CLASS I)

CR Impact 6 (CR.6)- Mainline Spill Impacts	
Train traffic associated with the importation of crude oil to the project site could result in a derailment or a material spill, which could result in the disturbance and destruction of cultural resources along the mainline routes.	
Mitigation	CR-6 As part of the Applicant's contract with UPRR, it shall require that a qualified archaeologist, architectural historian, and paleontologist who meet the Secretary of the Interior's Professional Qualification Standards prepare an Emergency Contingency and Treatment Plan for Cultural and Historic Resources along the rail routes in California that could be used to transport crude oil to the SMR. The treatment plan shall include, but not be limited to, the following components: a. Protocols for determining the cultural resources regulatory setting of the incident site; b. Provide various methodologies for identifying cultural resources, as needed, within the incident site (e.g., California Historical Resources Information System records search, agency contact, field survey); and c. If cultural resources are present, identify measures for their avoidance, protection, and treatment. The Treatment Plan shall be in place prior to delivery of crude by rail to the Santa Maria Refinery.
Findings	Mitigation measures would reduce the severity of impacts, but impacts to cultural resources due to a crude oil spill along the mainline would remain significant and unavoidable.
Supportive Evidence	Cultural resources are known to occur throughout California and undoubtedly in the vicinity of existing rail lines that would be used to transport crude oil to the SMR. In the event of a train derailment or an oil spill, potentially significant adverse impacts to cultural resources could occur, including the destruction or disturbance of archaeological, historic, and paleontological resources as a result of the cleanup and restoration activities. Clean up of an oil spill would likely require the use of bulldozers, frontend loaders, and other construction equipment to remove any contaminated soil. Use of this type of construction equipment could impact both known and unknown cultural, historic, and paleontological resources. Total avoidance in the event of a derailment or a spill would not be feasible; therefore, if cultural resources are affected, the impact could be significant. Implementing mitigation measure CR-6 would potentially reduce potential impacts; however, there is the potential that a derailment or a spill may destroy a significant cultural or historic resource, and remediation actions may not result in the recovery of significant resources. In the event this occurs, the residual effect would be significant and unavoidable. Note that the County may be preempted by federal law from implementing these mitigation measures.

10.5 HAZARDS AND HAZARDOUS MATERIALS (CLASS I)

HM Impact 2 (HM.2)- Mainline Accident Impacts	
The potential for a crude oil unit train derailment would increase the risk to the public in the vicinity of the UPRR right-of-way.	
Mitigation	HM-2a Only rail cars designed to FRA, July 23, 2014 Proposed Rulemaking Option 1: PHMSA and FRA Designed Tank Car as listed in Table 4.7.6, shall be allowed to unload crude oil at the Santa Maria Refinery. HM-2b For crude oil shipments via rail to the SMR a rail transportation route analysis shall be conducted annually. The rail transportation route analysis shall be prepared following the requirements in 49 CFR 172.820. The route with the lowest level of safety and security

HM Impact 2 (HM.2)- Mainline Accident Impacts	
	risk shall be used to transport the crude oil to the Santa Maria Refinery. HM-2c The Applicant's contract with UPRR, shall include a provision to require that Positive Train Control (PTC) be in place for all mainline rail routes in California that could be used for transporting crude oil to the SMR. HM-2d The refinery shall not accept or unload at the rail unloading facility any crude oil or petroleum product with an API Gravity of 30° or greater. Implement mitigation measures PS-4a through PS4e (noticing, railcar design, first responder funding and training).
Findings	Mitigation measures would reduce the severity of impacts, but impacts to the public in the vicinity of the mainline due to a crude oil spill along the mainline would remain significant and unavoidable.
Supportive Evidence	Crude oil transported by rail could ignite and burn or explode given a train derailment and subsequent spill. This scenario could impact populated areas along the mainline routes. A quantitative risk analysis was prepared following the guidelines of the American Institute of Chemical Engineers, Center for Chemical Process Safety to access the risks of a train accidents on populated areas. In order to identify the frequency of an accident and oil spill from a crude oil train on each of the possible routes, the analysis took into account major risk factors, including route specific FRA track class, method of operation, tank car safety design, and the proposed volume of crude oil trains over the route. In addition, several crude oil spill scenarios were modeled to evaluate worst-case thermal radiation hazards associated with a large crude oil fire. Modeled scenarios ranged from small releases from a tank car, to the complete loss of multiple tank cars. Because maximum risks from proposed transport of crude oil are above the significant risk threshold, impacts would be considered potentially significant. These risk profiles represent the cumulative risk along the entire route. The risk within any individual City or County would be considerably less. The risk is primarily driven by the high threat urban areas (Los Angeles Area, Bay Area, and Sacramento) since these are the locations where fairly long stretches of track are in close proximity to heavily populated areas. Mitigation measures HM-2a through HM-2d would reduce the potential for a rail accident and loss of containment, and would also improve emergency response in the event of an accident. Even with this reduction in risk, the risk associated with the Rail Spur Project along the UPRR right-of-way in the event of a release of crude oil that resulted in a fire or explosion would still be significant and unavoidable. Note that the County may be preempted by federal law from implementing these mitigation measures.

10.6 PUBLIC SERVICES AND UTILITIES (CLASS I)

PS Impact 4 (PS.4)- Mainline Fire Protection and Emergency Response Impacts	
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.	
Mitigation	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 Impact 4 (PS.4)- Mainline Fire Protection and Emergency Response Impacts	
	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.
Findings	Mitigation measures would reduce the severity of impacts to less than significant, but due to the potential for Federal preemption, the mitigation measures might not be applied and therefore impacts due to the increased demand for fire protection and emergency response services along the mainline would remain significant and unavoidable.
Supportive Evidence	The Rail Spur Project would increase demand for fire protection and emergency response services due to increased transportation and handling of crude oil along the mainline. While unlikely events, rail accidents, crude oil spills, fires along the mainline could occur. Depending upon the extent of the event, local fire jurisdictions would need to respond. 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. A single significant event along the mainline 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. 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. However, it is not certain that implementation of various impending 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 significant and unavoidable.

10.7 WATER RESOURCES (CLASS I)

WR Impact 3 (WR.3)- Mainline Spill Impacts	
A rupture or leak from a rail car on the UPRR mainline track could substantially degrade surface water and groundwater quality.	
Mitigation	WR-3 Implement mitigation measures PS-4a through PS-4e (noticing, railcar design, first responder funding and training) and BIO-11 (Oil Spill Contingency Plan).
Findings	Mitigation measures would reduce the severity of impacts, but impacts on water quality due to a spill along the mainline would remain significant and unavoidable.
Supportive Evidence	The northern and southern UPRR mainline track from the Santa Maria Refinery to Roseville and Colton, respectively, would traverse numerous creeks, washes, rivers, wetlands, and sloughs. In addition, the routes are located in proximity to numerous lakes and marine waters. Although it is unlikely, derailment of a train could result in the release of crude oil from rail tanker cars, which could cause substantial degradation to surface water and/or groundwater quality depending upon the location of the spill. Spills into water ways and infiltration into groundwater could impact sources of drinking water, threatening water supplies for local populations or impact wetlands and other natural areas along with their inhabitants. Oiling could occur on vegetation and soil along the banks or shore of surface water bodies. In the event of a crude oil spill UPRR would rely first upon local emergency response agencies (police and fire). If needed, UPRR has standing contracts with emergency response firms that are available around the clock to manage any release of crude oil. UPRR maintains spill response contracts with companies throughout their rail network in California. Depending upon the location, and extent of a spill local response teams, UPRR response personnel and State and Federal response agencies would be involved in the containment and cleanup operations. Depending upon the location of an oil spill along the UPRR mainline tracks, there may be no oil spill containment or cleanup equipment immediately available, and it could take some time for emergency response teams to mobilize adequate spill response equipment. Depending upon the location of the spill this could allow enough time for the spill to impact water resources. Therefore, oil spills along the UPRR mainline tracks could be significant depending upon the location of the spill. Implementation of mitigation measure BIO-11 and PS-4a through PS-4e would serve to reduce the likelihood of an oil spill and the ability of first response agencies to respond to a crude oil spill. Even with implementation of these mitigation measures oil spill impacts to water resources, mainline rail oil spills impacts to water resources along the UPRR mainline tracks would remain significant and unavoidable, depending upon the location of the spill. Note that the County may be preempted by federal law from implementing BIO-11 and PS4a through PS-4e.

11.0 CUMULATIVE AND GROWTH INDUCING IMPACTS

11.1 CUMULATIVE IMPACTS

State CEQA *Guidelines* §15355 defines cumulative impacts as

> *"two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts". Further, "the cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."*

The Guidelines require the discussion of cumulative impacts to reflect the severity of the impacts and their likelihood of occurrence. However, the discussion need not be as detailed as the analysis of impacts associated with the project, and should be guided by the rule of reason. Cumulative impacts associated with this project are discussed in the topical analysis sections provided in Chapter 4 of the Final EIR. The cumulative development scenario is identified in Chapter 3 Cumulative Scenario and Methodology.

Discussed below is a summary of the issue areas where cumulative impacts were identified to be significant and unavoidable for the project.

Agricultural Resources – There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3 of the EIR. This level of crude oil train traffic would increase the probability of an oil spill along these mainline routes. In the event of an accident along stretches of track in proximity to prime, statewide or local important farm land, a spill of transported crude could occur, potentially damaging any agricultural areas, soils, crops, water sources, and uses within the area of the spill. An accident also create a fire hazard in agricultural areas, which could spread substantially beyond the areas directly adjacent to the tracks. Some short-term impacts could be minimized through site remediation, clean-up, and restoration of the agricultural resources (i.e., replanting, removal of contaminated soils). However, impacts related to water source contamination and loss of some specialty crops (i.e., old growth vineyards that have value in their age) would be more difficult to mitigate. The loss of some crops, prime soils, and other agricultural resources may not be mitigable through restoration and replacement in kind. Therefore, potential cumulative impacts to agricultural resources associated with an oil spill would be considered significant and unavoidable.

Air Quality – All cumulative projects within SLOC must comply with SLOCAPCD rules and regulations that include air emission reduction strategies for the basin. These, in concert with individual project mitigation measures, will help reduce air quality impacts. However, until the San Luis Obispo area as a whole attains all federal and state standards, it is likely that the criteria pollutant air emissions from the cumulative projects would be regionally significant and unavoidable. The Rail Spur Project would be required to provide emission reduction credits for all the significant construction and operational criteria pollutant emissions at the refinery, the County may be preempted from mitigating the mainline rail emissions within San Luis Obispo County. These additional project related criteria pollutant emissions would be considered cumulatively significant and unavoidable since the area is in non-attainment with some of the federal and state standards air quality standards.

For the Rail Spur Project mitigation measure have been provided that would require the Applicant to obtain emission credits for all main line rail NO_x emissions. If these emission credits were obtained then the Rail Spur Project's contribution to the cumulative NO_x and ROG/VOC emission impacts would be less than significant. However, the County may be preempted by Federal law from mitigating rail emissions outside of the SMR, and therefore may not have the authority to require offsite emission credits for the UPRR mainline emissions. In this case the Rail Spur Project's contribution to cumulative NO_x emissions associated with the URPP mainline emissions would also be significant and unavoidable in all of the air basins that the train would cross. The Rail Spur Project's ROG/VOC emissions would be cumulatively significant in the Bay Area and the San Luis Obispo County air basins.

For areas outside the County, cumulative toxic air emission for trains operating on the same tracks could be potentially significant and unavoidable.

For GHG emissions, the Applicant would be required to provide emissions reduction credits for all GHG emissions within California. However, the County may be preempted by Federal law from mitigating rail emissions outside of the SMR, and therefore may not have the authority to require offsite emission credits for the UPRR mainline emissions. Therefore, when compared to the SLOCAPCD significance threshold of 10,000 metric tonnes CO2e, the Project's contribution to GHG impacts would be cumulatively considerable, and there would be a significant cumulative GHG impact associated with the Project.

If Phillips 66 elects to utilize the rail spur to its capacity, this could then redirect some crude oil from proposed area cumulative projects to other destinations, most likely south to Los Angeles. Depending on the mode of transportation, if all of the crude oil were transported to Los Angeles area refineries, this could also increase emissions in the area and would also be a cumulatively significant impact.

Biological Resource – There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3 in the EIR. This level of crude oil train traffic would increase the probability of an oil spill along these mainline routes. The mainline rail routes pass through a number sensitive biological areas including water body crossings. In the event of an accident along these stretches of mainline rail routes, a crude oil spill of significant amounts of transported crude could occur, potentially impact sensitive biological resources. Depending upon the location of an oil spill along the UPRR mainline tracks, there may be no oil spill containment or cleanup equipment immediately available, and it could take some time for emergency response teams to mobilize adequate spill response equipment. Depending upon the location of the spill this could allow enough time for the spill to impact sensitive habitats, and plants and animal species that may occur within these habitats. Therefore, oil spills along the UPRR mainline tracks could be cumulatively significant depending upon the location of the spill.

Cultural and Historical Resources – There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3 in the EIR. This level of crude oil train traffic would increase the probability of an oil spill along these mainline routes. An oil spill along these stretches of mainline track could cause adverse impacts to cultural, historic and paleontological resources if an oil spill were to occur in a location where these resources were present. Clean up of an oil spill would likely require the use of bulldozers, frontend loaders, and other construction equipment to remove any contaminated soil. Use of this type of construction equipment could impact both known and unknown cultural, historic, and paleontological resources. Therefore, cumulative impacts to cultural, historic and paleontological resources in the unlikely event of an oil spill along these stretches of mainline tracks could be significant and unavoidable depending upon the location of the spill.

Hazards and Hazardous Materials – There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3 in the EIR. This level of crude oil train traffic would increase the probability of an oil spill along these mainline routes. Using the QRA conducted for the Rail Spur Project in the EIR, a cumulative risk analysis was developed for the mainline routes. The analysis in the EIR shows that the cumulative risk would be significant. For some routes, depending upon what tank car design USDOT adopts, the cumulative risk along the routes could be reduced to less than significant. However, since these are proposed regulations at this time, the cumulative risk would remain significant and unavoidable.

Public Services and Utilities – There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3 in the EIR. This level of crude oil train traffic would increase the probability of an accident along these mainline routes. 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. 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 and cumulative impacts would remain significant and unavoidable.

Water Resources - There is the potential for cumulative impacts associated with the crude by rail project discussed in Chapter 3 in the EIR. This level of crude oil train traffic would increase the probability of an oil spill along these mainline routes. Depending upon the location of an oil spill along the UPRR mainline tracks, there may be no oil spill containment or cleanup equipment immediately available, and it could take some time for emergency response teams to mobilize adequate spill response equipment, which could allow enough time for the spill to impact various surface water bodies, as well as plants and animal species that may occur within these habitats. Therefore, oil spills along the UPRR mainline tracks could be cumulatively significant depending upon the location of the spill.

11.2 GROWTH INDUCING IMPACTS

Section 15126.2(d) of the California Environmental Quality Act Guidelines requires that Environmental Impact Reports provide a discussion of the growth-inducing impacts of the proposed project. Growth-inducing impacts could be caused by projects that foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth-inducing impacts can also be caused by removing obstacles to population growth such as an expansion of a wastewater treatment plant. Growth-inducing impacts can result from population increases that require the construction of new community services facilities.

In general terms, a project may induce spatial, economic, or population growth in a geographic area if it meets any of these four criteria:

- Removal of an impediment to growth (e.g., establishment of an essential public service or the provisions of new access to an area);
- Economic expansion or growth (e.g., changes in revenue base, employment expansion);
- Establishment of a precedent-setting action (e.g., an innovation, a change in zoning or general plan amendment approval); or
- Development or encroachment in an isolated area or one adjacent to open space (being different from an “infill” type of project).

Should a project meet any one of the above listed criteria, it can be considered growth inducing. The impacts of the Rail Spur and Crude Unloading Project (Rail Spur Project) are evaluated below with regard to these four growth-inducing criteria.

Removal of an Impediment to Growth: Future development at the Rail Spur Project site would involve the unloading of crude oil from a unit or manifest train. The Rail Spur Project would not result in the establishment of an essential public service nor would it provide new access to a previously inaccessible area. The Rail Spur Project would not be responsible for, nor contribute to, the expansion of utility services into a previously unserved area or an under-served area. Water for construction and operation of the Rail Spur Project would be provided by groundwater wells that are used by the SMR, and an existing Pacific Gas and Electric Company (PG&E) electrical line~~s~~ would be used to provide power to the Rail Spur Project. As a result, The Rail Spur Project would not cause significant growth inducement under this criterion.

Economic Growth: Economic growth is evaluated to the extent that it would relate directly or indirectly to a physical impact on the environment. Economic growth could occur in the area during construction of the Rail Spur Project. Employment due to construction would be limited to mostly short-term temporary labor. The construction is expected to last about ~~four~~ nine to 10 months, which could produce some short-term economic growth. It is expected that most of the construction workers would come from the local contractor pool within 20 to 30 miles of the project site. Therefore, no growth in hotel services would be expected to occur.

Minimal new operational employment would be associated with the Rail Spur Project. Only twelve employees would be needed during the time train are being unloaded at the SMR, and some of the staff would be existing SMR employees. Given the limited increase in local expenditures associated with the Rail Spur Project, the economic growth associated with future development at the proposed project site would not be significant from an environmental standpoint.

Precedent-Setting Action: The purpose of the Rail Spur Project is to provide a source for crude for SMR. The San Luis Obispo County Zoning Ordinance allows refining at the project site with a Coastal Development Permit. The Rail Spur Project would be within the property boundaries of the SMR and, therefore, would not be a precedent-setting action that would create significant growth inducing impacts.

Development of Open Space: Development of open space is considered growth inducing when it encroaches upon urban-rural interfaces or in isolated localities. The Rail Spur Project site is located on lands that are zoned specifically for refining operations, which by its nature requires the delivery of crude oil for refining. Therefore, the project would not cause new encroachment upon current open spaces.

12.0 ALTERNATIVES

CEQA, §15126.6(a), requires an EIR to "describe a reasonable range of alternatives to a project, or to the location of a project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives". Through the scoping process, if an alternative was found to be infeasible, as defined above, then it was dropped from further consideration. In addition, CEQA states that alternatives should "…attain most of the basic objectives of the project..." Please refer to Chapter 5, Alternatives Analysis, of the EIR for a detailed discussion of the alternatives. The following alternatives were selected for more detailed review.

12.1 NO PROJECT ALTERNATIVE

CEQA requires an evaluation of the No Project Alternative so that decision makers can compare the impacts of approving the project with the impacts of not approving the project. According to CEQA Guidelines §15126.6(3)(B), for a development project the No Project Alternative is the circumstances under which the project does not proceed. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed.

Under the No Project Alternative, the predictable action would be for crude oil to continue to be delivered to the refinery by pipeline and truck (trucks deliver crude to the Santa Maia Pump Station (SMPS) where it is then sent via pipeline to the Santa Maria Refinery (SMR). Since the delivery of crude to the SMR is primarily from local sources via pipeline, in the long-term, if local supplies were to decline, then the amount of crude processed at the SMR could decline under the No Project Alternative. However, new local sources of crude oil could be developed in the future that would offset any decline.

Under the No Project Alternative, it is possible that crude oil shipments via truck to the Santa Maria Pump Station (SMPS) could increase. Crude oil shipments via truck to the SMPS have averaged about 6,800 barrels per day. This could increase to about 26,000 barrels per day, which was the permitted Santa Barbara County APCD limit at the time the NOP was issued for the Rail Spur Project. This increase (19,200 barrels per day) could add about 100 truck trips per day of crude travelling to the SMPS for crude unloading.

The SMR is currently receiving Canadian crude that is trucked from the Paloma Rail Unloading Terminal in Bakersfield. Under the No Project Alternative it is likely that additional out of state crudes would be brought to various rail unloading terminals in California and transferred to trucks for delivery to the SMPS. The crude oil would then be moved via pipeline from the SMPS to the SMR.

The transfer from rail to truck could also occur at a number of locations within the State. There are a number of new rail unloading facilities that have been approved in the Bakersfield area, such as Alon and All American Pipeline Company, as well as the existing Paloma Terminal, and the Kinder Morgan rail to truck facility in the Bay Area. While the Alon has been approved by Kern County, the approval has been appealed. Also, an expansion of the All American Terminal rail terminal has also been appealed.

Exactly what terminals might be used would depend upon available capacity and economics, and it is likely that crude would be delivered to multiple terminals and then trucked to the SMPS. Use of the All American Pipeline Company terminal would require the installation of truck loading facilities. The Alon facility is equipped with truck loading facilities, but some might have to be converted to crude service.

For the purposes of the No Project Alternative Analysis it has been assumed that crude oil unit trains would deliver the crude to one of the facilities near Bakersfield, transfer it to trucks, which would deliver it to the SMPS. The delivery of 19,200 barrels per day of crude (seven days per week) would require 2.5 crude oil unit trains per week to be delivered to one of the rail unloading terminals near Bakersfield. The trucks would leave these terminals and travel to Santa Maria using State Highway 166, to Highway 101 and exit at the East Stowell Road ramp. They would then travel southeast on Stowell Road to Rosemary Road to East Battles Road to reach the SMPS. The travel distance for the trucks would be about 110 miles one-way.

12.2 LOOP RAIL UNLOADING CONFIGURATION

The Loop Rail Unloading Configuration would be designed to handle up to five unit trains per week, with an annual maximum number of unit trains of approximately 250. Each unit train would consist of up to 80 tanker cars, which is the same as the Rail Spur Project. Each unit train would be capable of delivering about 52,000 barrels of oil to the SMR.

Construction of the Loop Rail Configuration Alternative would affect approximately 51.3 acres and would have an area of about 66.3 acres enclosed in the center of the loop. Due to the topography of the site approximately 350,000 cubic yards of cut and 218,000 cubic yards of fill would be required in order to provide level track and the required turn radius for the train. Approximately 80,000 cubic yards of excess cut may have to be trucked from the SMR, and the remainder of the excess cut could be used in other areas of the SMR.

The unloading facility would include an access platform and a system of pumps and meters, suction lines from the railcars, carbon beds for vapor treatment, and a common pipeline leading to the refinery's existing tank farm. The unloading system would be similar to the Rail Spur Project. It has been assumed that there would be two 10 car unloading systems. As the tanker cars are unloaded the train would be pulled around the loop until all 80 tanker cars have been unloaded. The total time needed or positioning, unloading, and departure of a unit train would be 10 to 12 hours. With this alternative an emergency access road would be constructed from the rail loop to State Route 1.

A new fire protection and safety 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. This would be the same fire protection system as the proposed Rail Spur Project.

An eastern Emergency Vehicle Access route would be constructed from the eastern end of the rail loop 3,000 feet to State Route 1. The secondary access road would be covered with crushed miscellaneous base (most likely decomposed granite or comparable surfacing) to support emergency vehicles as prescribed by Cal Fire but would not be paved.

12.3 REDUCED RAIL DELIVERIES

With this alternative the number of train deliveries to the SMR would be limited to a maximum of three per week, with an annual total of 150 trains. (The Proposed Rail Spur Project evaluated in the FEIR was a maximum of five trains per week. with an annual total of 250 trains.) All other aspects of this alternative would be the same as the Proposed Rail Spur Project evaluated in the FEIR.

The initial application submitted to the County by the Applicant was for five trains per week. During the Planning Commission Hearings, the Applicant amended the project to three trains per week and a maximum of 150 trains per year, consistent with the Reduced Delivery Alternative evaluated in the FEIR (see February 1, 2006 letter from Applicant to Planning Commission). These trains would deliver heavy crude for refinement at the Santa Maria

Refinery. All other aspects of this alternative would be the same as the Rail Spur Project as analyzed in the EIR.

12.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Section 15126.6 requires an EIR to describe a reasonable range of alternatives to a project or to the location of a project which could feasibly attain its basic objectives and evaluate the comparative merits of the alternatives. If the environmentally superior alternative is the "No Project" alternative, then the next most environmentally superior alternative must be identified in the FEIR.

The determination of environmentally superior alternative is somewhat complicated by the Federal preemption issue. If the County is preempted from requiring mitigation of the impacts on the UPRR mainline track and locomotives, then the No Project Alternative would be the environmentally superior alternative, and the next most environmentally superior alternative would be the Reduced Rail Delivery Alternative, which is the Applicant's subsequently amended project (to three trains per week from five).

The Reduced Rail Delivery Alternative, as opposed to the five-train per week Rail Spur Project would: reduce the probability of a train accident, reduce the exposure of sensitive receptors to train unloading noise, reduce GHG emissions, and reduce DPM and other criteria pollutant emissions. All of these reductions would result since fewer trains would be delivered to the SMR.

Therefore, the Reduced Rail Delivery Alternative (three trains per week) would be environmentally superior to the five-train per week Rail Spur Project as analyzed in the EIR. However, some impacts, including the hazard associated with train accidents would remain significant and unavoidable with the Reduced Rail Delivery Alternative.

13.0 MITIGATION MONITORING AND REPORTING PROGRAM

PRC §21081.6 requires the lead agency, when making the findings required by PRC §21081(1)(a), to adopt a reporting or monitoring program for the changes to the project that it has adopted, in order to ensure compliance during project implementation. A Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the project that requires the County to monitor mitigation measures designed to reduce or eliminate significant impacts, as well as those mitigation measures designed to further reduce environmental impacts that are less than significant.

The MMRP designates responsibility and anticipated timing for the implementation of project mitigation measures within the jurisdiction of the County. Implementation of the mitigation measures specified in the Final EIR and the MMRP will be accomplished through administrative controls over project planning and implementation. Monitoring and enforcement of these measures will be accomplished through verification in periodic Mitigation Monitoring Reports and periodic inspection by appropriate County personnel. The County reserves the right to make amendments to and/or substitutions of mitigation measures if, in the exercise of discretion of the County, it is determined that the amended or substituted mitigation measure will mitigate the identified significant environmental impact to at least the same degree of significance as the original mitigation measure it replaces, or would attain an adopted performance standard for mitigation, and where the amendment or substitution would not result in a new significant impact on the environment that cannot be mitigated.