The Mesa Refinery Watch Group

THE PHILLIPS 66 "RAIL SPUR" PROJECT:

Responses To The *"Recirculated Environmental Impact Report"* (REIR Issued 10/10/14)

Submitted By:
The Steering Committee of the Mesa Refinery Watch Group
On Behalf Of 500+ Citizens of SLO County

- Linda Reynolds (Chairperson): lreynolds151@gmail.com
- Martin Akel: akelassoc@earthlink.net
- John Anderson: johnanderson33@hotmail.com
- Kevin Beauchamp: Kevin.Beauchamp@kw.co
- Lee Edmonson: edmondson60@gmail.com
- Gary McKible: gary@mckible.com
- Mike Nelson: miken0105@gmail.com
- Tom Ryan: whitneyhiker888@yahoo.com
- Sam Saltoun: ssaltoun@verizon.net
- Laurance Shinderman: lshinderman@sbcglobal.net

Submitted To:
Mr. Murry Wilson, Environmental Resource Specialist/Project Planner
San Luis Obispo County Planning Department

Date Submitted: 11/20/14

CONTENTS

	Page
A. RESPONSES TO THE REIR	
1. The REIR's Structure And Timing For Response Are Inadequate	5
2. Project Description	
a. Discrepancies And Unanswered Questions	6
3. Aesthetics and Visual Resources	
a. Visual Impacts That Cannot Be Mitigated	7
b. Lighting Impacts That Cannot Be Mitigated	8
4. Agricultural Resources	
a. Impacts That Can Devastate The Reputation Of SLO County	9
5. Air Quality and Greenhouse Gases	
a. The Serious Environmental Threats - Five "Class I" Damaging Impacts	10 - 13
b. The Refining Of Tar Sands Leads To A Host Of Major Health Problems	14 - 15
c. The Use Of Emission Credits By Phillips 66 Is A Clear-Cut Danger To Citizens	16
6. Biological Resources	
a. A Myriad Of Impacts On Wildlife, Our Land, Tourism & Residents	17
7. Geological Resources	
a. REIR Lacks A Facility Inspection Plan To Counter Earthquakes & Liquefaction	18
8. Hazards and Hazardous Materials	
a. A Lack Of Critical Information In The REIR	19 - 21
b. The New DEIR Is Inconsistent With The County General Plan - Such As The Toxicity And Flammability Of The Crude To Be Shipped	22 - 23
c. The Historical Odds Of Rail Accidents Versus What's Actually Occurring	24 - 27
d. The Derailment Of Crude Oil Rail Trains Cannot Be Prevented Or Mitigated	28 - 29

(continued)

CONTENTS

	Page
A. RESPONSES TO THE REIR	
8. Hazards and Hazardous Materials, cont.	
e. Phillips' "New" Rail Cars - They're Not As Safe As They Claim	30 - 31
f. Phillips' New DOT-111 Rail Cars - The REIR Bans Them From The Santa Maria Refinery	32
g. It's Not Only The Accidents, It's The Long-Term Aftermath The County Would Face	33 - 34
h. The Danger Of Transporting Crude Oil Down The Cuesta Grade	35 - 36
i. Individual Points Of Failure For Derailments Are Unidentified Or Minimized	37
j. The Widespread Evacuation Required By A Major Rail Accident	38 - 39
k. Phillips' Refineries Are Not Invulnerable To Accidents	40 - 41
l. The Need To Specify The Places And People The Rail Project Puts At Risk	42 - 43
9. Land Use	
a. A Rail Yard & Terminal - A Vastly Intensified Land Use, Incompatible With Adjacent Residential Zoning	44 - 45
b. Major Technical Deficiencies In The REIR	46 - 49
c. Inconsistencies Between The Phillips 66 Project And Applicable County Land Use Policies	50 - 51
d. The REIR Ignores The Impact On Existing Recreation Areas	52 - 53
10. Noise and Vibration	
a. Unacceptable Noise Levels From The New Rail Terminal	54 - 56
11. Population and Housing	
a. An Obvious Disregard For The Existing Population Of South County	55 - 56
12. Emergency Response Services	
a. Underfunded, Undertrained, Under-equipped, Unprepared, Preempted	59 - 60
13. Transportation and Circulation; Vertical Coastal Access	
a. Misclassifications, Miscalculations And Misinterpretation Of Impacts In The REIR	61 - 63

(continued)

CONTENTS

	Page
A. RESPONSES TO THE REIR	
14. Alternatives	
a. The Only Alternative To Protect SLO County Is "No Project - No Rail Terminal"	64
15. Mitigation Monitoring Requirement	
a. SLO County - Shouldering The Vast Responsibility For Reporting & Monitoring An Enormous Range Of Mitigation Measures	65 - 68
16. An Inadequate Executive Summary	69
17. A Potentially Illegal, "Piecemealed" Project Which The REIR Fails To Address	70

A-1. The REIR's Structure And Timing For Response Are Inadequate

It took 6 months and 12 days for technical professionals to rewrite the initial DEIR on the Phillips 66 Rail Terminal project ... more than a half year.

The REIR report contains 889 daunting pages of highly technical information. It's extremely difficult for even a person seasoned in scientific details and government regulations to digest, let alone an average, non-technical citizen.

Yet, a Public Workshop was held just 26 days following its release. The public was supposed to have already become expert enough on those 889 pages to ask a full spectrum of comprehensive, educated questions. Unfortunately, many residents feel we weren't able to ask all the appropriate questions after such a short time.

And of course, all responses to those 889 pages, complete with facts and details, has to be submitted to the County just 19 days after that Workshop, on November 24th. That's yet another unreasonable deadline.

In addition - the REIR states that *"all comments on the previous DEIR were reviewed, and the revised DEIR was modified to address applicable comments."* We believe there were about 800 emails and letters sent in. MRWG 01

- But how is anyone supposed to know which comments were considered "applicable", and sort out where and how they are treated in the new REIR?

  The revised document should have clearly indicated in the margins or elsewhere what has been changed, but it doesn't. So the public has to start reading all over again and determine on their own what's the same and what's revised. Therefore the document is unfairly structured ... it hides the differences between the old and new EIRs, across almost 1,000 pages.

The bottom line - the timetable for the written comment period is grossly unfair and should be reset. It should not end after a mere 45 days. The public needs a far more reasonable chance to understand the 889-page document, figure out what has changed, and then submit their reactions. It took the authors more than 6 months to write it ... so the public deserves as much time to reply.

The Rail Terminal project would have a momentous impact on our County. We're sure that the Planning Commission doesn't want to be accused of hastening the proposal through without giving citizens the proper amount of time to respond. There is no good reason why the clock shouldn't be reset for a much longer period of time.

A-2. PROJECT DESCRIPTION:
Discrepancies And Unanswered Questions (Section 2.0)

1. **Year-Long Pollution & Congestion Accompanying Construction - Not Addressed:** The proposed Rail Terminal construction schedule begins in July 2015 and will last approximately 10 months. This will add an estimated 916 additional truck/worker trips to and from the construction site. Truck traffic will include heavy duty dump trucks, concrete trucks, water trucks, flatbed semi-trucks and various other construction equipment.

   The majority of these trips will be on Willow Road between the construction site and Highway 101, primarily during daylight hours. This will add significant air, noise, visual pollution and congestion to this area that has many thousands of existing residents.

   How will this year-long pollution and congestion be alleviated? This REIR does not address this. MRWG 02

2. **A Miscalculation - Length Of The Proposed Trains:** The REIR states that each of the inbound unit trains will consist of three locomotives, two buffer cars, and 80 tank cars. Each will be 90 feet long. Eighty-five components multiplied by 90 feet equals 7,650 feet. That is approximately 1.5 miles long (1.45 miles).

   At the November 6th Public Workshop held by the County on the REIR, the report's authors publicly stated that the trains would be "less than a mile long." This is an error of approximately 50%!

   Therefore, whatever impacts the report states are based on a train of "less than a mile long", must be recalculated based on the the accurate length ... which will surely change the noise and visual impacts at the SMR and along the mainline. The trains would be 50% noisier and take 50% longer to pass through the County. MRWG 03

3. **Discrepancy - Length Of Trains Vs. Length Of Tracks:** As stated above, each train will be 1.5 miles long (7,650 feet long). The proposal states that Phillips will only be building 6,915 feet of new track. They do not give specific dimensions for the length of any spur. But they do state that each track will (supposedly) be long enough to hold an entire train.

   The math does not add up even for one train. However, the REIR also states that the facility could hold a second train if needed. This discrepancy is not taken into account in the REIR. There must be a far greater understanding of exactly what Phillips is proposing ... track length and other dimensions that properly support statements in the REIR. MRWG 04

4. **Noise Generated By Train Repairs - Not Addressed:** The REIR states (section 2.3.1) that existing track 765 will be repurposed as a "bad order" track. Bad order tracks are used to repair railcars that require repair before they can be moved again. Repairs of railcars can be very noisy and time consuming depending on the type of repair. There is no description of the type of repairs to be done on-site at the refinery, when they will be done during the day (daytime or nighttime), the level of anticipated noise, nor whether and how that noise will be alleviated. MRWG 05

A-3. AESTHETICS AND VISUAL RESOURCES:
a. Visual Impacts That Cannot Be Mitigated (Section 4.1)

1. **A Misrepresentation Of What Will Be Visible:** Sections of the Rail Terminal Project would be seen from public roadways, walking paths and residences within the Trilogy community, looking west past Highway 1. This includes views from Via Concha Road, Louise Lane, and more. These views would include the unloading facility, railroad tracks and trains as they arrive and depart.

   However, the "Known Viewing Area" (KVA) photos presented in the REIR were taken at the intersection of Via Concha and Highway 1. The elevation at that point is only about 197 feet above sea level. Using that figure is misleading by 50%! For example, a more telling, accurate KVA would have been from the Trilogy homes adjacent to the second tee on the Monarch Dunes golf course. That elevation point is approximately 297 feet ... 100 feet (50%) higher! The view from that higher elevation, where the community actually resides, is far more encompassing of the Rail Terminal Project than specified in the REIR. MRWG 06

2. **A Misinterpretation Of "Public Means":** At the Public Workshop on November 6, 2014 to discuss the REIR, the report's authors' indicated that they interpreted the word "public" to be views only from Highway 1 west toward the ocean (i.e., views from the cars and trucks whizzing by at 55 mph or more on the highway). They felt that anything east of Highway 1 was "private."

   This is a major error in the way the visual impacts were determined. It was pointed out during that meeting that there are dozens of County-approved "public" areas in the Trilogy development east of Highway 1 ... including dozens of public streets, public sidewalks, and public trails. (There's even a "public" golf course.) These "public" sites must be taken into account regarding visual impacts. A recalculation of these sites, from the proper elevations, must be included in the next revised EIR. MRWG 07

3. **Inserting A Rail Terminal That Blocks The "Scenic Vista":** According to the REIR -- the view looking west from Highway 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 REIR indicates that the Rail Terminal and its associated trains would reduce views of the open space in the mid-ground -- which is an "important visual contributor" to the overall scenic vista. Therefore the REIR states, this would be a significant impact. MRWG 08

4. **A Major Increase In Onsite Activity:** The REIR states (4.5.1.4) that *"between 1994 and 2011* (an 18 year period in which the Nipomo Mesa residential communities were built) *the only discernible activity is within the coke yard."* Therefore, building a rail terminal and unloading facility, plus the arrival and departure of 520 trains per year, each a 1.5 miles long, will be a sea change in the amount of visible activity residents will be exposed to. MRWG 09

5. **A Mitigation Solution That Will Not Work:** To alleviate the damage to the "scenic vista", the REIR suggests (4.1) that an earthen berm be constructed around the eastern perimeter of the Rail Terminal. It theorizes that a berm 10 - 20 feet tall would block the views of the rail spur and trains. That solution simply will not work, given that homes in Trilogy are actually at an elevation approximately 100' higher than presented in the study. The visual destruction would remain. MRWG 10

A-3. AESTHETICS AND VISUAL RESOURCES:
b. Lighting Impacts That Cannot Be Mitigated (Section 4.1)

1. **New Lighting Introduced For 50 - 60 Hours Per Week:** New outdoor lighting is proposed throughout the Rail Terminal Project. The unloading facility lights would introduce light into a new area. The perimeter of the crude oil unloading area would have floodlights on 30-foot tall poles every 300 feet. The unloading area lights would be used during the unloading operations, which could be five times per week for about 10 to 12 hours per unloading (i.e., 50 - 60 hours per week). MRWG 11

2. **Residents Will Definitely See The New Lights:** The closest area residents would be approximately between one-half to one mile away ... well within sight during evening hours. The earthen berms that the REIR theorizes might be a mitigation approach, is a counter-intuitive solution. The berms would be 10' - 20' high. Yet the floodlights will be 30' high, 10' higher than the berms. Therefore, the impact of the lights will be visible from the elevated sites on Louise Lane, Eucalyptus Road, Tomas Court, etc. MRWG 12

3. **Pointing The Lights Downward Is Not A Solution:** We're told the new lights would be pointed downward. However, while the lights would point downward, they'd obviously be illuminating the offloading facility and tank cars beneath them. Those surfaces will be visible (despite the berm) - they will be lit up brightly to help employees go about their complex, dangerous work.

   The result - residents would see the bright reflected light on the surface of everything that's lit up at the unloading facility ... including the tracks, tank cars and the pumping station. Before them would be a brightly lit movie set, with all the machinery and characters in motion. And residents would have a front row seat. MRWG 13

   Looked at another way - imagine an aerial shot of a fully lit baseball stadium, with the stadium's lights pointing downward. The entire playing field and crowd are fully visible from the aerial position. In the case of Trilogy's residents, who reside at a much higher elevation than the Rail Terminal, Phillips' entire "playing field" will similarly be fully visible.

4. **Incompatibility With Residential Zoning:** All of this is highly incompatible with SLO County's having created and zoned the area next to the refinery as a residential community. To date, the community and refinery have lived harmoniously, with respect for the well-being of one another. The residents invested in their homes on the Mesa facing agricultural fields, dunes, the Pacific Ocean, and a relatively serene refinery, whose raw material was delivered by pipeline. MRWG 14

   But if the rail terminal is approved, the entire environment would change, in the reflected bath of bright lights. So no matter which direction Phillips promises to point their new lights, the Rail Project should not see the light of day.

A-4. AGRICULTURAL RESOURCES:
Impacts That Can Devastate The Reputation Of SLO County's Agricultural Businesses (4.2)

As members of the SLO County Planning Board and BOS recognize, agriculture is a primary driver of business in SLO County. But the recently released REIR contains impacts that can devastate that business and the excellent "ag" reputation of SLO County ... from strawberries to citrus to vineyards ... all of which provides stability to the local economy.

a. **Agricultural Impacts At The Santa Maria Refinery:** (4.2) *"In the event of an oil spill at the SMR due to the unloading operations there could be impacts to agricultural crops on adjacent properties. These impacts could be direct oiling of the crops or due to impacts to surface or groundwater. These impacts at the SMR were found to be less than significant with mitigation."*

b. **Agricultural Impacts Along The Mainline:** (4.2) However, a far greater danger (Class I) is posed to all of SLO County by crude oil trains potentially derailing along the mainline ...

- *"The addition of up to five 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 worst case spill from a unit train on the mainline tracks was assumed to be 180,000 gallons (about six tanker cars)."*

- *"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."* MRWG 15

- *"An accident along the mainline routes could also create a fire hazard in agricultural areas, which could spread substantially beyond the areas directly adjacent to the tracks. As shown in Figures 4.2-4 through 4.2-6, the mainline rail routes pass through numerous prime, statewide or local important farm lands. All of these agricultural areas could be impacted in the unlikely event of an oil spill in close proximity to these areas. In the event of an oil spill adjacent to these areas, there could be a complete loss of the agricultural resources due to fire or oil spill in the vicinity of the impact area."*

The Phillips 66 plan would add 520, 1.5 mile-long trains to SLO County, entering and leaving each year. That's why the REIR classifies the above threats as "Class I" impacts. There would be no way to prevent potential derailments and all of the outcomes from them. The only approach left would be to attempt to recover and clean up the results of major oil spills, fires, etc. ... none of which would likely be done completely or satisfactorily.

Such spoilage of SLO County's agricultural resources will also result in a destruction of our County's reputation for growing wine, strawberries, and other crops vital to tourism and our economy. **The REIR should be rewritten to expand upon the devastating impact oil spills, fires, etc., could have on the economy and reputation of the County's agricultural businesses.**

Therefore, the Rail Terminal project should be rejected. If there is no Terminal, there will be no impact on our agricultural resources.

A-5. AIR QUALITY AND GREENHOUSE GASES:

a. The Serious Environmental Threats - Five "Class I" Damaging Impacts (Section 4.3)

The original EIR recognized only two air quality impacts as "Class I" (i.e., impacts that cannot be mitigated to less than significant levels). However, in the REIR (section 4.3), the number of Class I impacts has more than doubled regarding those that are "significant and unavoidable" ... proving that the original analysis either purposely minimized these issues or was woefully inadequate in its observations.

In the new REIR, the following five project impacts were classified as Class I:

1. **(AQ.2):** Operational activities associated with the Rail Spur Project at the Refinery would generate criteria pollutant emissions that exceed SLOCAPD thresholds.

2. **(AQ.3):** Operational activities of trains along the mainline rail route outside of SLO County associated with the Rail Spur Project would generate criteria pollutant emissions that exceed thresholds.

3. **(AQ.4):** Operational activities at the Refinery associated with the Rail Spur Project would generate toxic emissions that exceed SLOCAPCD thresholds.

4. **(AQ.5):** Operational activities of trains along the mainline rail route associated with the Rail Spur Project would generate toxic emissions that exceed thresholds.

5. **(AQ.6):** Operational activities associated with the Rail Spur Project would generate GHG (greenhouse gas) emissions that exceed SLOCAPCD thresholds.

MRWG 16

The Key Issues ...

- **Heightened Recognition Of Specific Threats To Citizens' Health:** This REIR recognizes the serious nature of the health risks raised by this project. Increased risks in important health categories such as cancer, heart disease, respiratory disease (especially in the very young and very old) and premature death are recognized and in some cases the risks are quantified.

- **Heightened Recognition Of A Threat To Global Climate Change:** The impact of this project on California's and SLO County's programs to reduce the threat of global climate change is also quantified in this REIR and the increase in greenhouse gas emissions of this project are found to exceed thresholds.

- **Impractical And Unenforceable Mitigation Measures** Although there are mitigation measures discussed in this EIR for all five Class I impacts, the EIR's discussion of the measures, for the most part, makes it very clear they are not truly feasible or adequately enforceable.

  The main reason - SLO County is preempted from imposing requirements on the railroads as they operate on the mainline tracks within California. The County is also preempted from imposing emission requirements on the diesel engines that drive the locomotives that this project will bring to California and SLO County.

  The County can impose requirements on rail operations within the refinery. The EIR does list the limiting of locomotive idling as one such mitigation measure. But it is clear that meaningful enforcement of a limit on the idling of locomotives operating 24/7 over the entire life of this project would be infeasible as a practical matter.

(continued)

a. The Serious Environmental Threats - Five "Class I" Damaging Impacts, cont.

- **Not Taking Into Account All The Criteria For Determining Compliance With Air Pollution Standards:** An issue of great concern with the REIR is its singular reliance on emissions increase thresholds as the sole criteria for the determination of significance under CEQA. The County has identified a full list of criteria that can be used as a basis for determining "significance" under CEQA. An emissions increase threshold is only one of them.

  For a project locating in an area like the Nipomo Mesa, where residents are already exposed to high levels of fine particulate (and where both the state and the federal health standards for particulate matter are currently violated), other criteria for determining "significance" must also be considered.

  Two possible candidates from the list of criteria cited by the SLO County Air Pollution Control District would be:

  1. Is the project consistent with the most recent Clean Air Plan for San Luis Obispo County?

  2. How do the predicted ambient criteria pollutant concentrations resulting from the project compare to state and federal health standards, when applicable?

  Again, given that this project lies in the heart of a region where the state health standard for particulate matter is violated over 70 times per year and where the federal health standard has been violated in each of the last three years, a prima facie argument can be made that any increase in the emissions of particulate matter at this project site violates both of the CEQA significance criteria listed above, even if the emissions threshold specified by the County was not exceeded.*

  This conclusion is only enhanced by the fact that most of the particulate increases from this project are in the form of diesel exhaust, and the health effects of exposure to to diesel exhaust are very well documented. And need we point out that this is a "crude-by-rail" project ... the first ever to be proposed for SLO County.

  The use of these additional, critical criteria (in addition to the "emissions increase threshold" criterion) further strengthens the case for Class I findings ... specifically those related to the emissions of criteria pollution from the operation of the project in SLO County (AQ.2 above).

  And, it would also change the Class II finding for AQ.1, which is related to the emissions of criteria pollution from the construction of the project at the SMR ... changing it from Class II to Class I.

MRWG 16 cont

*Please see the following pages from the SLO County APCD's Annual Report, documenting how South County continues to routinely exceed state and federal particulate matter standards.

2013 ANNUAL AIR QUALITY REPORT

Karl A. Tupper
Compliance and Monitoring Division

SLO COUNTY apcd

BIG PICTURE

Gases

- Ozone
  - Fewest number of exceedences ever
  - Clear downward trend
- Nitrogen Dioxide
  - As usual, no exceedences
- Sulfur Dioxide
  - First federal exceedence ever
  - Occurred during refinery maintenance
    - Unlikely to reoccur

Particulate Matter

- Higher average levels countywide vs 2012
- South County
  - Most exceedence of state PM_{10} standard ever
  - No improvement
  - Pending non-attainment designation for state $PM_{2.5}$ standard

SUMMARY

- **East County continues to exceed state & federal ozone standards but shows improvement**
  - Due to transport
  - No exceedences elsewhere
  - Fewest exceedences since monitoring began
- **One exceedence of Federal SO_2 standard**
  - Circumstances associated with exceedence are unlikely to reoccur
- **South County** (Mesa2 & CDF) **continues to routinely exceed state & federal PM standards**
  - No sign of improvement
  - Few exceedences elsewhere
  - Expect non-attainment designation for state standard for $PM_{2.5}$ annual average

A-5. AIR QUALITY AND GREENHOUSE GASES:

b. The Refining Of Tar Sands Leads To A Host Of Major Health Problems (Section 4.3)

1. **The Arrival Of "Tar Sands" In SLO County:** The Nipomo refinery's superintendent has verbally told us that with the Rail Terminal Project, there's a definite possibility (we think probability) they will ship in "tar sands" crude oil ("oil sands") via rail from Alberta, Canada. Tar sands (a "heavy" crude) has substantially higher concentrations of sulfur, copper, nickel, nitrogen, lead and benzene than are found in conventional crude.

   In fact, a "comment letter" from California's Attorney General Kamala Harris in which she took a negative stand on crude-by-rail, contained a frightening description of tar sands ...

   - *"Tar sands bitumens contains 102 times more copper, 21 times more vanadium, 11 times more sulfur, six times more nitrogen, 11 times more nickel, and 5 times more lead than conventional heavy crude oil. These pollutants contribute to smog, soot, acid rain, and odors that affect residents nearby."* Of course, they also contribute to very serious health issues. MRWG 17

   (R.F. Meyer, E.D. Attanasi, and P.A. Freeman, "Heavy Oil and Natural Bitumen Resources in Geological Basins of the World," U.S. Geological Survey Open-File Report 2007-1084 - 2007 - p.14, Table 1.)
   http://beniciaindependent.com/wp-content/uploads/2014/10/2014-10-02-AGO-Valero-CBR-Project-DEIR-Comment-Letter-OCR.pdf

2. **Health Issue #1 - Higher Levels Of Sulfur Dioxide:** The main danger to communities is that facilities that refine tar sands could emit significantly higher amounts of sulfur dioxide. And that could lead to chest tightness, asthma, reduced lung function, respiratory weakness and cardiovascular issues, as well as cancer. Sulfur dioxide is especially dangerous for people who have preexisting heart and lung conditions. The health danger of "tar sands" (oil sands) is not addressed fully enough in the REIR. MRWG 18

3. **Health Issue #2 - Increased Quantities Of Petroleum Coke:** The refining of tar sands also yields a significantly higher amount of petroleum coke, known as "petcoke." Phillips' Nipomo refinery already produces petcoke. And it's left onsite as widespread, open hills of black granules and dust. This waste product can easily be blown into residential areas by onshore winds and breathed in by residents. Petcoke is linked to a potential increase in heart attacks and respiratory issues. MRWG 19

   The proposed Rail Terminal Project calls for two new tracks for the loading of coke product. And, In their "Summer 2014" flyer, Phillips announced three new hires. All three hires are for "coke operators." We must assume that Phillips intends to significantly increase its petcoke production at the SMR based on bringing in tars sand via rail ... but the REIR doesn't not address this increase at all.

4. **Onsite Trains - Kicking Up Even More Coke Dust:** Phillips proposes to now bring 520 trains in and out of the Nipomo facility. Each of these 1.5 mile-long trains will pass through the petcoke fields twice. Therefore, coke dust (of which there will likely be even more due to the refining of tar sands) will be launched into the air by the passing tanker cars. This dust will be carried by the onshore winds into the multiple communities on the Mesa. This is not addressed in the REIR, and it must be. MRWG 20

5. **Coke Dust Throughout The County:** Additionally, the tanker cars are not going to be washed down. So upon leaving the SMR they will be spewing dust up and down the Union Pacific tracks, poisoning the air on the mainline through SLO County. This is not addressed in the REIR, and it must be. MRWG 21

(continued)

b. The Refining Of Tar Sands Leads To A Host Of Major Health Problems, cont.

http://www.phillips66.com/EN/newsroom/feature-stories/Pages/AdvantagedCrude.aspx (Phillips and advantaged crude)
http://fuelfix.com/blog/2013/01/09/phillips-66-moving-bakken-oil-by-rail-in-1b-deal/ (Phillips shipping ND Bakken by rail)
http://www.mercurynews.com/ci_23366256/canadian-tar-sands-crude-heads-bay-area-refineries (Phillips shipping tar sands by rail; description of tar sands)
http://energy.cr.usgs.gov/oilgas/addoilgas/WEC07NBEHO.pdf (properties of tar sands)
http://www.republicreport.org/2014/keystone-xl-refinery/ (Phillips ownership of tar sands refineries)
http://www.fastcoexist.com/1680531/why-you-dont-want-your-local-oil-refinery-processing-materials-from-tar-sands (health issues; corrosiveness)
http://switchboard.nrdc.org/blogs/ddroitsch/mounting_evidence_that_tar_san.html (tar sands; cancer)
http://www.nrdc.org/energy/tar-sands-health-effects.asp (description of tar sands crude; health risks)
http://switchboard.nrdc.org/blogs/bolson/oil_companies_bet_on_tar_sands.html (tar sands, properties, risks)
http://www.huffingtonpost.ca/2014/01/03/bakken-oil-flammable-megantic_n_4534862.html (volatility of Bakken; flash point)
http://online.wsj.com/news/articles/SB10001424052702304834704579401353579548592 (Bakken - high combustion risk; unstabilized)
http://www.reuters.com/article/2014/01/03/us-usa-energy-bakken-idUSBREA010ZI20140103 (Jan. 2, 2014) (Canadian Crude Tech. Assn.)
National Resources Defense Council Bulletin
Oil Shale/Tar Sands Guide
http://www.ci.richmond.ca.us/DocumentCenter/View/26803 (causes of Richmond, CA 2012 Chevron refinery fire)
http://sierraclub.org/dirtyfuels/tar-sands/toxic-report.aspx (Sierra Club on tar sands)
http://www.epw.senate.gov/public/index.cfm?FuseAction=PressRoom.PressReleases&ContentRecord_id=57c67ed1-a1ae-5957-6194-ca167dcc42f1 (Barbara Boxer on tar sands)

A-5. AIR QUALITY AND GREENHOUSE GASES (Section 4.3):

c. The Use Of Emission Credits By Phillips 66 Is A Clear-Cut Danger To SLO County Citizens

The REIR states that the pollution generated by the project both within and outside SLO County on the mainline, could be significant and unavoidable. It's classified as a Class I impact. These pollutants include diesel particulate matter, which of course will come from the diesel locomotives on the 520 trains entering and leaving the County.

The report states (section 4.3) that one of the ways Phillips 66 would reduce these on-site emissions is by applying emission credits they earned years ago. This would be a "get out of jail free" card. Because then the locomotives could pump new pollution into the air regardless of the impacts ... and Phillips would not have to worry about it.

As SLO County Planners and Supervisors should know, the air quality on the Nipomo Mesa already exceeds federal and state standards (see section A-5a above). Yet, the REIR is written as if everything will be okay for the human beings who have to breathe the additional pollutants, because Phillips can offset it by using credits. MRWG 22

Even if Phillips has the legal ability to use those credits ... does that make it right to consciously, further poison the air that children, teenagers and adults will breathe?

The REIR must be rewritten to specifically identify that the use of emission credits, although technically feasible, will bring significant harm to the health of SLO County citizens. That is the true impact, and it must be clearly stated.

A-6. BIOLOGICAL RESOURCES:
A Myriad Of Impacts On Wildlife, Our Land, Tourism & Residents (Section 4.4)

1. **Impact On Wildlife:** Wildlife will be impacted by fuel management, vegetation removal, night lighting and storm run off of pollutants. Aquatic resources on the adjacent property could be impacted by hazardous material spills. (sec. 4.4-22) The REIR doesn't address how the loss of wildlife would affect people on the Mesa and tourism. Additionally, cleanups would involve heavy traffic and polluting diesel trucks, further damaging wildlife - this is not addressed. MRWG 23

2. **Impact On The Coastal Habitat:** The Rail Terminal and proposed pipeline are adjacent to sensitive coastal habitat and approximately 500 feet from a tributary channel to Oso Flaco Creek. The project could affect that area and negatively impact tourism (hikers, birdwatchers, etc., in Oso Flaco and Guadalupe Dunes). (4.4.-38, 4.4-39) Cleanups would involve heavy traffic and polluting diesel trucks MRWG 24

3. **Impact On The Monarch Butterfly Habitat:** Impacts from construction and operational activities on the Butterfly Habitat are unknown due to a lack of sufficient scientific information. A lack of information doesn't mean there won't be an impact. The Habitat is located in the Trilogy development. It's an area walkers, tourists and naturalists enjoy and are drawn to. It's been stated that the Monarchs often do not return when areas become polluted. Loss of the Habitat would cause a loss of tourists, and negatively affect local residents and SLO County overall. (4.4-43) The REIR does not address this. MRWG 25

4. **A "Significant" Impact:** The REIR states that if biological resources or natural habitat are effected due to a train derailment or oil spill the impact would be significant ... a Class 1 impact (4.4.44) The UPRR mainline transects additional sensitive resources that are not currently mapped due to private property constraints. Destruction of private property would harm home values. The reputation of our area as a rural, high quality area to live would be substantially harmed. That is not addressed in the REIR. MRWG 26

5. **Impact On Endangered Species & SLO County:** The highly localized Nipomo Mesa lupine (a federally endangered species) could be permanently lost due to a catastrophic crude-by-rail event. There are a minimum of 219 sensitive animal species documented within 300 feet of the rail. In the event of a derailment the negative impact to the drainages, channels, and wetlands would be substantial. MRWG 27

6. **Impact On SLO County Tourism:** SLO county has a minimum of 76 streams and crossings along the UPRR mainline. To clean a hazardous oil spill would require the mobilization of emergency response units and equipment. This would harm our reputation as a vacation area. Oil contaminated areas would alienate people who now travel to here for camping, hiking and our area's natural beauty. The REIR does not address these issues. MRWG 28

7. **Impact On SLO County Residents:** The Rail Terminal project will have a negative effect on our County as a whole. Damage to our unique plant species, animal species and waterways would harm our tourism economy. The residential growth (which been encouraged and approved by the SLO planning commission) would be negatively impacted. Homeowners are attracted to the area because the County has been willing to put a protective emphasis on our natural environment. This has been a significant attraction to people who want a quality of life with a protection of our natural habitat and biological resources. The County has not been an area where heavy industry is allowed to be developed next to our sensitive biological resources and developing residential areas. MRWG 29

The REIR should be rewritten to take the above, specific issues into account.

A-7. GEOLOGICAL RESOURCES:
REIR Lacks A Facility Inspection Plan To Counter Earthquakes & Liquefaction (Section 4.8)

The REIR* states that damage to structures from liquefaction** and ground accelerations from earthquakes "could be severe", are considered potentially significant, and could result in hazardous oil spills, risk of fire, and surface and groundwater contamination.

The REIR further states - *"As discovered* (from experience) … *existing building codes are often inadequate to completely protect engineered structures from hazards associated with large ground accelerations."* As is typical of large scale industrial facilities, there is no local permit oversight for the aging structures and equipment at the Santa Maria Refinery beyond initial construction permitting. MRWG 30

Given the severe potential consequences to nearby residences of a structural failure within the refinery operation should severe ground shaking or liquefaction occur, there should be a mechanism in place for periodic inspection and review of existing and newly-constructed facilities to account for corrosion and stressing of components over time.

The potential for nearby residents to suffer harm from an incompatible and intensified industrial facility is inconsistent with the goals of the San Luis Obispo General Plan. This must be addressed in the REIR.

* Page 4.8-12, section 4.6.4, paragraphs 3 & 4

**A saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress, usually earthquake shaking or other sudden change in stress condition, causing it to behave like a liquid

A-8. HAZARDS AND HAZARDOUS MATERIALS:

a. A Lack Of Critical Information In The REIR (Section 4.7)

1. **Lack Of Comparable Information Between Current Crude Being Processed And What Would Be Processed Under Crude-By-Rail:** (2.6 page 136) The crude oil currently being processed at the SMR comes from multiple sources, and the crude proposed under the Rail Terminal project will also come from multiple sources. The REIR must investigate the quality of those crudes and determine:

   1. How hazardous the current crude is.

   2. The Packing Group number assigned to current crude shipments.

   3. Exactly the types of crude that will be shipped by rail. The REIR lists all types of possibilities, but what specifically will be shipped - e.g., Canadian tar sands (oil sands). This is too critical to issues such as air pollution, volatility, etc. Phillips must not be allowed to be vague about the type of crude that will arrive by rail based on issues like "market conditions", etc.

   4. How the current crude compares to the crude Phillips 66 intends to bring in by rail. What are the specific differences in hazards and to what level? Will the "new" crude be more volatile? Will it give off more pollution during refining? Will it result in more polluting byproducts? Etc.

MRWG 31

2. **Lack Of Sufficient Train Accident Information:** (table 4.7.3) sets out a list of Local Safety Hazard Sites ("LSHS") in California taken from California Public Utility Commission ("CPUC"). The 14-mile long Cuesta Grade is one of the 16 sites listed. The REIR states that there have been no derailments on that LSHS during the period 2009 through 2013, which is only a 5-year period. It would be far more enlightening to know if there have been any derailments on the Cuesta Grade in the last 50 years.

   In fact - in 1959 two passenger trains collided in SLO County. The locomotive of one train slammed into the cars of the other, derailing both trains, ripping out 700 feet of track, and causing five injuries. One train caught on fire. Where did this occur? On the Cuesta Grade.

   Also - the data for train accidents overall (table 4.7.2) is over a 10-year period and taken from the FRA. On the other hand, data about local safety hazards in California is only over a 5-year period and taken from the CPUC. Why two different sources? This leads to the conclusion that insufficient data is being purposely supplied in the REIR.

MRWG 32

3. **Missing Information - Change In Increase Of Air Pollution From "Shuttlewagons":** (Page 4.7 – 15) Current SMR operations include the use of a "shuttlewagon", also referred to as a "switching locomotive." Per the REIR, the switching locomotive (which is currently used to move rail cars filled with petroleum coke) consumes less than 5 gallons of diesel fuel per week.

   The REIR should compare the current switching locomotive diesel usage to that of the proposed switching locomotive diesel usage handling 5 trains per week. This will properly inform the public of the increase in airborne diesel particulates from that source.

MRWG 33

(continued)

a. A Lack Of Information In The REIR, cont.

4. Missing Information - The Experiences Of Other Rail Terminals: Current SMR operations do not have any unloading of crude oil rail cars. Therefore, the SMR has no experience with such unloading. The REIR must include and comment on the dangers (pollution, fire, accidents, etc.) experienced by other "crude-by-rail" refineries throughout the U.S. and Canada. Only then will we learn the reality of the outcomes of the Rail Terminal project.

(Page 4.7 – 25) Additionally, an overview of DOT regulations at 49 CFR 195 are highlighted by bullet points. It is mentioned in the REIR that oil facilities are required to report accidents to the DOT such as:

- Explosions or fires not intentionally set by the operator.
- Spills of 5 gallons or more, or 5 barrels if confined to company property and cleaned up promptly.
- Daily loss of 5 barrels a day to atmosphere.
- Death or injury necessitating hospitalization.
- Estimated property damage, including cleanup costs, greater than $50,000.

MRWG 34

Here too, accident information on the above types of incidents at refinery facilities using the crude-by-rail methodology in the U.S. or Canada must be included in the REIR. It would indicate what would likely happen at the SMR if the Rail Terminal project is approved.

5. Missing Information - Input From The CPUC: (Page 4.7 – 31) A detailed listing of the CPUC (California Public Utilities Commission) regulations for railroads is not in Appendix H.5. Appendix H.5 merely contains a very brief summary of what is contained in the CPUC Regulations.

It appears that the REIR wants to "hide the ball" by placing a very brief summary in an Appendix, rather than to address the applicable language of the CPUC Regulations as they pertain to the issues discussed in the body of the REIR.

A complete discussion of the issues with respect to whether the proposed project is in compliance or is out compliance with CPUC Regulations must be a part of REIR Section 4.7.

MRWG 35

ROSB inspections are divided into 5 railroad disciplines:

1. Operating practices.
2. Track.
3. Signal & train control.
4. Motive power & equipment.
5. Hazardous materials.

The REIR should have sought input from the CPUC to determine what if any objections they have to related aspects of the Rail Terminal Project.

(continued)

a. A Lack Of Information In The REIR, cont.

6. **No Safety Criteria Available From SLO County:** (Page 4.7 – 38) SLO County does not have a process to address CEQA thresholds and the associated risks in this situation. This is very likely true because SLO County has never before addressed a crude-by-rail analysis and a rail terminal/unloading facility. Therefore, the REIR has applied the Santa Barbara County thresholds (as per the REIR).

   Given the enormity of the change in the business model that Phillips 66 proposes, and that SLO County does not have the same overall lifestyle, economy, environment, business conditions, etc., as Santa Barbara County -- the REIR must not simply rely on some other location's CEQA thresholds. MRWG 36

   SLO County must develop its own criteria to determine whether the Rail Terminal Project is acceptable.

7. **Missing Information - Additional Risk Factors:** (Page 4.7 – 45) Union Pacific Railroad (UPRR) uses a Rail Corridor Risk Management System (RCRMS) to determine the safest and most secure route for trains carrying 20 or more crude oil cars. The RCRMS analytical tool was developed in conjunction with the Department of Homeland Security (DHS) and the Federal Railroad Administration (FRA). The RCRMS takes into account 27 risk factors to assess rail route safety and security (per REIR). MRWG 37

   The 27 risk factors include volume of commodity, trip length, population density along the route, local emergency response capability, track quality and signal systems, network infrastructure characteristics, railroad operating characteristics, human factors, and environmental and terrorist-related parameters.

   The REIR should have included a complete list of the 27 risk factors that are part of RCRMS.

8. **Unfair Allocation Of Emission Reduction Credits:** Phillips 66 intends to utilize emission reduction credits as an offset to the increased emissions at the SMR resulting from the proposed Rail Terminal Project. This is unjust to residents of SLO county who would have to breathe significantly increased air pollution, as a result of using emission reduction credit documents to make that new air pollution "legal." MRWG 38

   Furthermore, where will the emission reduction credits come from to offset the increased air pollution for the entire life of the proposed Rail Terminal Project (i.e. 30 to 50 years)? That must be addressed in the REIR.

A-8. HAZARDS AND HAZARDOUS MATERIALS:

b. The New DEIR Is Inconsistent With The County General Plan - Such As The Toxicity And Flammability Of The Crude To Be Shipped (Section 4.7)

The Phillips 66 Rail Terminal project diverges too far from the County's General Plan. The bottom line is that the project needs to be consistent in every way with the County's vision of our way of life or it will lead us in the wrong direction for the future.

a. Example #1 - The Unknown Toxic Nature Of What Will Be Shipped To SLO County: For example, let's look at DEIR Section 4.7 (Hazards and Hazardous Materials), regarding the toxic nature of the crude oil that would be shipped by rail.

The chemical composition of the imported crude oil defined in the EIR lacks the detail needed to answer the County General Plan goal S-6. To quote: *"reduce the potential for exposure to humans and the environment by hazardous substances."*

The DEIR's apparent intent is to show that the crude oil being imported is no more of a hazard than the California heavy crude that's historically been processed here. But it fails to do that. MRWG 39

There are toxins that will be present in the imported feedstock that are not addressed at all. There will be byproducts found in the uncovered windblown coke or sulfur piles, or released into the air during refinery malfunctions. In particular, there are heavy metals concentrations – like mercury, lead, cadmium, chromium – carcinogens that are almost certainly present in the imported crude oil.

An environmental Impact Report is supposed to evaluate impacts, but how can impacts be known if we don't know how much or what kind of toxins are being shipped here?

The CalOSHA Management of Change process for new crude oil sources is valuable, but how can a project be approved on that basis alone, with no limiting parameters for decision makers to evaluate the potential hazards?

b. Example #2 - Diluting Heavy Crude Makes If Far More Flammable: The revised DEIR glosses over how the crudes and bitumens will be diluted for shipment so that they are liquid enough to be pumped into and out of railcars.

In the case of crudes derived from oil sands, the feedstock that will be arriving here might be over 30% diluent. So the chemical compositions described in the DEIR don't really tell us much about what's actually in the railcars.

The diluents used at production fields are often the same products the DEIR states are specifically excluded (like Natural Gas Liquids, Bakken region light ends, and so forth). How Phillips 66 will control what diluent is used isn't addressed. MRWG 40

IMPORTANT: Unlike conventional crude oil – which has an even distribution of carbon numbers from light volatile molecules to heavy molecules that can't even sustain combustion – diluted bitumen (or "dilbit") doesn't have an a comparable even carbon number distribution. Rather, it shows two distinct peaks on the carbon number curve.[1]

In testing it's been shown that dilbit may mimic conventional heavy crude as the DEIR comparison shows. But in a fresh oil spill, diluted bitumen is essentially just as volatile, flammable and explosive as the underlying diluent itself.[2]

(continued)

b. The New DEIR Is Inconsistent With The County General Plan - Such As The Toxicity And Flammability Of The Crude To Be Shipped

Those are just examples of where the new DEIR remains inconsistent with the County General Plan. These must be resolved. The County should not be approving a project that is not compliant with the General Plan, unless it can be clearly demonstrated that it's in the County's best interest to proactively override the Plan. MRWG 40 cont

Appendix G of the DEIR is intended to call out these areas of inconsistency, but it fails to do so convincingly in several important areas, such as the example we've given about poorly defined hazardous materials brought into the County.

This project must be compliant with our County's General Plan in every significant way.

[1] Blackmore, Tim, et al.: *Light Ends Composition in Dilbit and Conventional Crudes*, Figure 4. Alberta Innovates Energy and Environmental Solutions, March 2014

[2] Tsaprailis, Haralampos: *Properties of Dilbit and Conventional Crude Oils*, Appendix 3, Section 3.4. Alberta Innovates Energy and Environmental Solutions, May 2013, Revised February 2014

A-8. HAZARDS AND HAZARDOUS MATERIALS:
c. The Historical Odds Of Rail Accidents Versus What's Actually Occurring (Section 4.7)

Railroads and oil companies are shipping ever-larger amounts of crude by rail. And they're attempting to calm citizens' fears about rail accidents by citing outdated, historical statistics. For example ...

- The Association of American Railroads proudly notes that in the past, 99.9% of rail shipments of hazardous materials, including oil, reached their destination without a spill.

- And the fall 2013 Draft EIR for the Phillips Rail Project placed the likelihood of a train accident releasing oil in SLO county at once in every 226 years.

Unfortunately, current data is far more sobering. Looking strictly at oil shipments, spills are spiking. According to the Associated Press -- in 2009, before the oil drilling boom, just one rail oil spill was reported. But now, with the flood of new oil, the landscape is far different. Through November 2013, crude oil releases were reported from 137 rail cars versus just one car.

Here's another more current statistic. In the last five years, the number of tankers of crude transported by train in the U.S. has grown from under 10,000 to about 400,000 -- that's a 40-fold increase.

And over the next decade, rail oil shipments are forecast to increase from 1 million barrels each day to more than 4.5 million barrels every single day.

MRWG 41

Therefore, you can toss the industry's outdated "odds" out the window. All you need do is look out the window to learn the facts. Freight trains carrying crude oil, propane and other hazardous materials are going off their tracks at alarming rates. Why? Because more trains are carrying that material. The roll call of such events, just since 2013, is overwhelming in its quantity and intensity ...

- **March 2013, Parkers Prairie, Minnesota:** Fourteen cars on a mile-long train carrying tar sands derailed, leaking 26,000 gallons of crude.

- **July, Lac-Megantic, Canada:** A 72-car train carrying crude crashed and exploded, killing 47 people and flattening the center of their town.

- **October, Alberta, Canada:** Thirteen cars, carrying crude oil and liquified petroleum gas, came off the tracks, with many cars leaking, exploding or bursting into massive flames. Local officials declared a state of emergency and the entire community was evacuated.

- **November, Aliceville, Alabama:** Twenty cars on a train carrying crude derailed, spilling 750,000 gallons. Twelve cars exploded, going up in flame. The leaking oil fouled nearby wetlands.

- **December, Casselton, North Dakota:** A freight train traveling below the speed limit derailed and crashed into a crude oil train. Eighteen tankers exploded with a towering mushroom-cloud. Toxic fumes were released, causing all 2,300 residents to evacuate. 400,000 gallons of crude oil was spilled.

- **January 2014, New Brunswick, Canada:** A train derailed ... with five cars containing crude oil overturning, as well as four cars with liquified petroleum gas.

- **January, Plaster Rock, New Brunswick, Canada:** Later the same month in New Brunswick, another freight train derailed, including 8 cars containing propane gas and crude oil.

(continued)

The Historical Odds, cont.

- **January, Plaster Rock, New Brunswick, Canada:** Later the same month in New Brunswick, another freight train derailed, including 8 cars containing propane gas and crude oil.

- **January, Florida's Panhandle:** A train derailed spilling 30,000 gallons of corrosive, phosphoric acid. The acid had to be removed from a local stream and river.

- **January, Philadelphia, PA:** A train carrying six cars of crude oil derailed on a narrow bridge, leaving a tanker car and a boxcar dangling dangerously off the tracks, over a highway and river.

- **January, New Augusta, Miss:** Eighteen tank cars carrying highly flammable ethanol derailed, spilling fuel from the train. Citizens were evacuated to Red Cross shelters, and the local highway shut down.

- **February, Vandergrift, PA:** Nineteen cars carrying heavy crude derailed outside Pittsburgh, with four cars leaking approximately 4,000 gallons of oil. One car went through the wall of a nearby building.

- **March, Albany, NY:** Thirteen tank cars carrying crude oil went off the tracks in a local rail yard.

- **March, Western Minnesota:** Fourteen cars on a mile-long train from Canada derailed and leaked between 20 and 30 thousand gallons of crude oil.

- **April, Lynchburg, VA:** 17 cars of crude derailed and crashed along the James River, forcing the evacuation of a large part of downtown Lynchburg. The train was traveling only 24 mph, well below a new speed designed to improve rail safety. Three cars plunged into the river, spilling 25,000 gallons of oil. Flames and smoke shot 100 feet into the air and rolled down river. The river water was boiling. Fire fighters waited for the oil to burn out.

- **May, LaSalle, Colorado:** Six cars of a 100-car Union Pacific crude oil train derailed, leaking oil at the rate of 20 - 50 gallons per minute. MRWG 41 cont

- **May, Denver:** Six Union Pacific oil tankers "ripped apart from the train and flipped into a ditch." The accident polluted the groundwater with toxic levels of benzene.

- **June, McKeesport, PA:** Ten of 88 freight cars derailed on a bridge. Nearby residents reported - *"There was a thunderous boom. I never heard a train sound like that before. "I was freaking out."*

- **July, Seattle, WA:** As a 100-car, crude oil train left a rail yard, five cars toppled directly under a bridge. The train was going only 5 mph.

- **July, Wisconsin:** A freight train carrying diesel oil struck another freight train at a crossing, causing 3 engines and 10 cars to derail. Two crew members were sent to the hospital. 5,000 gallons of diesel fuel spilled from a locomotive. 100 residents were evacuated.

- **July, Alberta, Canada:** A 79-car train carrying oil and methanol and derailed. Five cars left the tracks, two of them containing crude oil. The train was on a line where they typically travel at slower speeds.

- **July, Brockville, Canada:** 25 cars linked to a freight train derailed, 12 of which contained fuel residue.

The Historical Odds, cont.

- **August, Hoxie, Arkansas:** Two Union Pacific trains carrying toxic chemicals collided head-on, killing two train crew and injuring two others. The subsequent fire burned for hours. According to the local director of the Office of Emergency Services - "It was a pretty violent hit. There are cars everywhere."

- **September, San Ardo, CA:** An Amtrak train heading south toward SLO County struck a pickup truck, which became lodged under the train. The truck was severely damaged and a train car window was shattered.

- **October, Waco, NE:** Twenty-eight railcars carrying coal derailed, with 27 landing on their sides.

- **October, Mer Rogue, LA:** An 18-wheel truck was stuck on the tracks. When a Union Pacific train slammed into it, two of the train's engines and 17 cars derailed, leaking dangerous chemical gas.

- **October, Saskatchewan, Canada:** A train carrying petroleum products and toxic material derailed. A "spectacular fireball" erupted from two cars, sending plumes of thick black smoke billowing into the sky. Residents were forced to evacuate.

- **November, Casselton, ND:** Eleven months later, in the very same town where massive destruction was caused by a crude oil train derailment, 12 empty crude oil tankers derailed next to an ethanol plant. The local sheriff said *"We deserve answers. I don't think any of us want to hear anymore that this is a coincidence."*

MRWG 41 cont

We should all admit, that with a documented history like that, the odds of future derailments are extremely high. The roll call of rail accidents will grow longer and longer.

And regarding oil spills -- more crude spilled from train accidents in 2013 than in the previous four decades combined.

The reality of what's actually happening and will continue to happen, flies in the face of the outdated, 99% odds and statistics handed out by railroads and oil companies. Simply put -- regardless of improvements in tank cars, far more crude oil shipped by rail equals far more trains derailing and far more disasters. It's all in the new numbers.

This was stated in a more colorful way by transportation consultant Steven Ditmeyer, a professor at Michigan State University. He said that it's in the industry's best interests to run safe railroads. But then he pointed to the Canadian Lac-Megantic disaster that killed 47 people. Regarding the railroads, he summed it all up with - *"sometimes they screw up."*

The bottom line is this -- the REIR calculates the odds of derailments in SLO County to be enormous. How those odds are calculated is not revealed. Yet, the REIR must take into account the REALITY of what is happening. Listed above are TWENTY-EIGHT significant, related derailments in just 21 months! If the REIR is to be balanced and truthful, that reality must be addressed. With 520 additional crude oil trains entering and leaving SLO County each year, the REIR must be honest with our citizens -- that allowing that to happen realistically presents an imminent danger.

(continued)

The Historical Odds, cont.

http://www.spokesman.com/stories/2014/jan/19/oil-by-rail-area-leaders-prep-for-disaster-while/
http://m.apnews.com/ap/db_289563/contentdetail.htm?contentguid=Yhrk2lho
http://www.mintpressnews.com/crude-spilled-2013-previous-four-decades-combined/177627/
http://m.apnews.com/ap/db_289563/contentdetail.htm?contentguid=Yhrk2lho
http://articles.chicagotribune.com/2014-03-25/news/chi-blue-line-crash-update-brakes-engaged-train-wasnt-speeding-20140325_1_train-crash-train-operator-cta-blue-line
http://blogs.wsj.com/canadarealtime/2014/03/26/tsb-data-show-increase-in-rail-accidents-involving-dangerous-goods-last-year/
http://www.huffingtonpost.com/2013/03/28/minnesota-oil-spill_n_2967118.html
http://usnews.nbcnews.com/_news/2014/01/31/22524183-50-evacuated-after-chemical-train-derailment-in-mississippi
http://bangordailynews.com/2014/01/07/news/world-news/evacuation-ordered-as-train-derails-catches-fire-in-new-brunswick/
http://www.cbsnews.com/news/fiery-tanker-train-derailment-in-canada/
http://usnews.nbcnews.com/_news/2013/03/28/17501526-train-hauling-oil-derails-spilling-30000-gallons-of-crude-in-minnesota?lite
http://bigstory.ap.org/article/oil-train-wreck-heightens-fire-chiefs-concerns;
http://online.wsj.com/news/articles/SB10001424052702304178104579535732934152004
http://www.komonews.com/news/local/Oil-train-derails-under-Seattles-Magnolia-Bridge-268442612.html
http://www.greeleytribune.com/news/11353788-113/crude-car-cars-davis
http://triblive.com/mobile/6248301-96/train-cars-containers
http://www.csmonitor.com/Environment/Latest-News-Wires/2014/0721/Oil-train-derails-spills-diesel-in-Wisconsin
http://online.wsj.com/news/article_email/two-oil-tank-cars-on-canadian-national-train-derail-in-rural-alberta-1404489061-lMyQjAxMTA0MDAwNDEwNDQyWj?tesla=y
http://railroaded.wordpress.com/2014/07/10/more-canadian-national-railway-derailments-in-alberta-and-ontario/
http://www.ottawasun.com/2014/07/10/brockville-train-derailment-affects-via-rail-service
http://www.sanluisobispo.com/2014/09/19/3253393_train-strikes-truck-in-san-ardo.html?rh=1
http://abc7.com/news/train-derails-after-crashing-into-stalled-big-rig/340019/
http://www.winnipegfreepress.com/opinion/columnists/trending-that-caught-dougs-eye-canadian-rail-disasters-278885041.html
http://kdvr.com/2014/09/22/derailed-railroad-delays-first-responders-on-riverside-oil-spill/
http://online.wsj.com/articles/arkansas-train-crash-kills-2-1408300396
http://www.klkntv.com/story/26824342/coal-train-derails-near-waco.
http://www.inforum.com/content/second-time-year-two-trains-derail-near-casselton-cass-sheriff-demands-answers

A-8. HAZARDS AND HAZARDOUS MATERIALS:

d. The Derailment Of Crude Oil Rail Trains Cannot Be Prevented Or Mitigated (Section 4.7)

What causes the train derailments that continue to occur, which only then cause tank cars to topple over and rupture, followed by oil spills, fires, explosions, pollution, etc.?

The actual causes of derailments are many. The reality is, SLO County cannot prevent or mitigate the causes. And regardless of whether or not truly "safer" tank cars are possible in the future, trains will continue derailing.

Here are the causes of actual derailments in 2013-14 alone (all are supported by documentation):

a. **Mechanical Failure:** Wheels or axles on rail cars simply break, causing cars to derail & split open.[1, 12, 13]

b. **Brake Malfunction:** Emergency brakes engage causing the trains to stop too sharply then derail.[3, 4]

c. **Broken Rails:** Aging, damaged rails cause trains to jump their tracks.[14, 16]

d. **Rails Warped By Heat:** Hotter temperatures are causing rails to warp, increasing the number of derailments. [19]

e. **Improper Track Design:** Tracks are "not up to standard" for contemporary trains, leading to derailments.[5]

f. **Theft:** Parts of rails are stolen (or vandalized). Trains come through and derail.[10]

MRWG 42

g. **Terrorism:** Terrorists plot to derail trains (e.g., an al-Qaeda plot was foiled last year in Ontario, CAN).[15]

h. **Other Trains Derail:** A train other than the crude oil carrier derails; the crude oil train crashes into it; and the crude oil train derails as well.[2]

i. **Unattended, Runaway Rail Cars:** Either engineers fail to set brakes properly or brakes malfunction on their own, causing runaway trains to head down inclines and ultimately derail and explode.[6]

j. **Rain/Flooding Causes Derailments:** Heavy rains or blocked waterways flood across tracks, causing the connection with trains to be unstable, and trains derail.[7]

k. **Heavy Winds:** Wind gusts of 60 mph or higher sweep trains off their tracks.[11]

l. **Human Error:** In addition to the "human error" causes listed above, there are additional human failures … such as the commuter train that derailed outside New York City in late 2013. The cause -- according to the engineer's representatives -- *"He may have lost focus at the controls in a momentary daze before the crash."* That engineer could have very well been driving a train pulling crude oil tankers.[8]

There's also a recent report from the Texas Department of Transportation. It states that 21% of the train derailments in that state have been caused by the human factor, such as not securing equipment, going too fast, or failing to secure brakes.[18]

(continued)

The Derailment Of Crude Oil Rail Trains Cannot Be Prevented Or Mitigated, cont.

In late February 2014, even after all the rail disaster publicity, problems continued to be identified. For example -- trains and tracks in and around Albany, NY were inspected. In one rail yard, after checking out just 120 tankers (i.e., little more than one train length), inspectors found three defective wheels and three defective brake shoes. And on two miles of track they found 36 defects including loose rails joints and fasteners. [17]

The Phillips Rail Terminal Project cannot take the above causations into account. SLO County cannot mitigate or lessen the causes of these ever-increasing derailments. Therefore, SLO County should not accept the risks of 520 crude oil trains arriving and departing each year.

MRWG 42 cont

The REIR speaks of "derailments." But it must be rewritten to address the causes of those derailments. It must address the potential causes in SLO County -- i.e., the track conditions on the UPRR mainline, the mechanical conditions of the UPRR trains, the environmental conditions, the potential for theft or terrorism related to delivery by rail in SLO County, etc. And, if SLO County is prevented from doing so based on Federal preemption, the REIR must state that as well -- it must state that the County can do virtually nothing to prevent the causes of crude oil train derailments.

[1]http://abcnews.go.com/International/wireStory/wheel-axle-failure-canada-train-derailment-21473121 (New Brunswick, Canada)

[2]http://online.wsj.com/news/articles/SB10001424052702303640604579294794222692778 (Casselton, N.D.)

[3]http://www.theglobeandmail.com/news/national/train-carrying-oil-and-gas-derails-blaze-prompts-evacuation-of-new-brunswick-town/article16240968/ (New Brunswick, Canada)

[4]http://www.edmontonsun.com/2013/10/23/evacuation-lifted-after-train-derailment-in-gainford-alberta (Alberta, Canada)

[5]http://www.reuters.com/article/2013/11/13/us-oil-train-risks-analysis-idUSBRE9AC02U20131113 (Alabama)

[6]http://bangordailynews.com/2013/07/10/news/state/montreal-maine-and-atlantic-railways-chairman-says-brakes-on-train-in-lac-magantic-quebec-may-not-have-been-set-properly/ (Quebec)

[7]http://metronews.ca/news/vancouver/906627/cn-rail-says-heavy-rain-caused-train-derailment-in-vancouver-area/ (Vancouver)

[8]http://www.kansascity.com/2014/01/14/4750950/no-conclusions-yet-in-ntsb-report.html (New York City)

[10]http://www.focus-fen.net/news/2014/01/19/324485/theft-causes-train-crash-in-west-bulgaria-roundup.html (Bulgaria)

[11]http://mtstandard.com/news/state-and-regional/wind-causes--car-train-derailment-near-helena--/article_9850548e-7cf0-11e3-b17c-0019bb2963f4.html (Helena, Montana)

[12]http://www.sunjournal.com/news/maine/2014/01/09/cracked-wheel-may-have-caused-new-brunswick-train/1476118 (New Brunswick, Canada)

[13]http://www.startribune.com/local/238370801.html (Casselton, North Dakota)

[14]http://www.kpax.com/news/cause-of-superior-train-derailment-determined/# (Superior, Montana)

[15]http://news.nationalpost.com/2014/01/11/massive-rcmp-probe-stopped-al-qaeda-linked-conspiracy-to-derail-passenger-train-newly-released-documents/ (Ontario, Canada)

[16]http://journaltimes.com/news/local/coal-train-derails-in-caledonia/article_cf7ec014-8121-11e3-81ce-001a4bcf887a.html?comment_form=true (Calendonia, WI)

[17]http://www.nytimes.com/2014/03/01/business/rail-inspections-ramp-up-in-albany-and-buffalo.html?

[18]http://www.kvia.com/news/report-details-el-paso-train-accidents-derailments-in-recent-years/25378292

[19]http://thinkprogress.org/climate/2014/05/28/3442095/fossil-fuel-trains-sun-kinks-derailments/

A-8. HAZARDS AND HAZARDOUS MATERIALS:
e. Phillips' "New" Rail Cars - They're Not As Safe As They Claim (Section 4.7)

Early this year (Feb. '14) in a flyer to SLO County residents, Phillips stated it is *"committed to the safety of everyone in the communities where we operate. (Our) crude railcar fleet is one of the newest and are all DOT-111 cars ... including 2,000 that meet or exceed the Association of American Railroads safety standards. We are committed to our crude-by-rail strategy."**

However, Phillips (and the REIR) fails to mention that it's the DOT-111 tank cars that have been involved in most or all of the previous derailments, explosions, fires and oil spills. While those cars may be state-of-the-art, the state-of-the-art has proven beyond doubt that it's not good enough.

- A May, 2013 Phillips press release reported on their new cars - *"During the first quarter (of 2013), the company took delivery of 400 railcars, which will transport crude to its refineries on the East and West Coasts."*

- Yet, two months later, U.S. Senator Charles Schumer warned - *"DOT-111 tank cars are tragically flawed, causing potential damage & catastrophic loss of hazardous materials during derailments."* He called for the *"Feds to require a phase-out plan of DOT-111 cars carrying oil. The DOT-111 tank car has proven particularly prone to spills, tears and fires in the event of a derailment, and it's simply unacceptable."*

- At the start of 2014, the oil industry newsletter "OilPrice.com" wrote that *"The main concern with these* (DOT-111) *tank cars is their tendency to puncture in the event of a crash."*

- On February 26, 2014 National Transportation Safety Board member Robert Sumwalt told a House Transportation subcommittee that rail tank cars being used to ship crude oil (DOT-111s) are an "*unacceptable public risk. Even cars voluntarily upgraded by the industry may not be sufficient."*

- A February '14 AP article quoted Ed Hamberger, the president and CEO of the Association of American Railroads, who said the industry has strongly urged the government to set new tank car standards. He said - "*We believe there needs to be a safer tank car.*"(This was stated well after Phillips had taken possession of their DOT 111 cars!) MRWG 43

- Paul Stancil, the National Transportation Safety Board's Certified Hazardous Materials Manager, has stated that *"Safety benefits are not realized if old and new tank cars are commingled."* So danger will remain even if newer cars are introduced in the future.

So despite Phillips' desire for SLO County residents and officials to believe their new DOT-111 cars are a non-issue, they are and remain a state-of-the art safety risk. At the local level, Phillips may be committed to the safety of our communities. But it appears that at the corporate level they're far more committed to their "crude-by-rail strategy."

And, regardless of if and when tank cars are made safer, it will not stop trains from derailing. When tank cars traveling at speed topple over, regardless of their construction, it's likely there will be explosions, spills and the long-term, undesirable aftermath. The only way to prevent this in association with Phillips' Santa Maria refinery, is to prevent crude-by-rail from ever taking root there. No Rail Terminal equals 520, 1.5 mile-long crude oil trains that will not be entering and leaving SLO County each year.

The REIR must be rewritten to clearly state how Phillips current fleet of railcars are all DOT-111s, and that this type of car can place the citizens of SLO County in danger. This backdrop is necessary based on the REIR's requirement for DOT-117 cars.

*As of October 22, 2014, the company had bought or ordered 3,200 railcars, and planned to boost its fleet to 3,700.

e. Phillips' "New" Rail Cars - They're Not As Safe As They Claim (Section 4.7)

http://www.reuters.com/article/2014/10/23/crude-freight-unloading-idUSL2N0SI03D20141023
http://www.schumer.senate.gov/record.cfm?id=345384&
http://oilprice.com/Energy/Crude-Oil/DOT-111-Safety-Major-Issue-in-Crude-By-Rail-Debate.html
http://bigstory.ap.org/article/rail-cars-used-ship-oil-called-unacceptable
http://abcnews.go.com/Business/wireStory/buffett-rail-tank-cars-upgrades-oil-22749202

A-8. HAZARDS AND HAZARDOUS MATERIALS:
f. Phillips' New DOT-111 Rail Cars - The REIR Bans Them From The Santa Maria Refinery (4.7)

In recent years, Phillips 66 rushed to take advantage of low cost crude and low cost transportation of that crude by purchasing thousands of their own rail tank cars. Each of these cars is the model DOT-111. This model has been involved in many derailments, during which the cars puncture or break open, spill crude oil, catch on fire and sometimes explode.

Yet this is the car Phillips continued to purchase. Their February, 2014 flyer to SLO citizens stated - *"Our fleet includes 2,000 newly acquired cars ... and all are DOT 111 cars."**

However, both federal officials and railroad executives have stated that DOT-111 tankers are totally inappropriate for delivery of crude oil.

Indeed, on July 23, 2014, U.S. Federal regulators determined that oil companies and railroads were dead wrong in their huge escalation of crude-by-rail, using outmoded DOT-111 tank cars. The Department of Transportation (DOT) decided it would now require shippers to use cars with *"increased shielding and better thermal protection, and would have to be fitted with more crash-resistant valves."*

- The serious deficiencies of the DOT-111 are well known and therefore taken into account in the REIR. It states (4.7-69; page 489) -- *"Only rail cars designed to Option 1: PHMSA (Pipeline and Hazardous Materials Safety Administration) and FRA (Federal Railroad Administration) Designed Tank Car as listed in Table 4.7.6 (on page 447), shall be allowed to unload crude oil at the Santa Maria Refinery."*

MRWG 44

- When we refer to Table 4.7.6 we see the DOT's "Proposed Regulatory Requirements for High-Hazard Flammable Trains (HHFT)." The only option that the REIR states is acceptable is referred to as ...

- *"Require new tank cars constructed after October 1, 2015 (that are used to transport flammable liquids as part of a HHFT) to meet criteria for a selected option, including specific design requirements or performance criteria (e.g., thermal, top fittings, and bottom outlet protection; tank head and shell puncture resistance). PHMSA is requesting comment on the following three options for the DOT Specification 117."*

Clearly, the DOT will be requiring an entirely new model of tanker -- the DOT-117. And just as clearly, these are not the tankers Phillips intends to use to ship its crude oil to SLO County. They will attempt to use what will be outdated DOT-111 tankers that have proven to be failure-prone.

This is yet another critical reason why SLO County should reject building of the Nipomo Mesa Rail Terminal. No terminal equals no tankers.

We request that the REIR be rewritten to further explain WHY the DOT-117 cars are the only acceptable cars, that the specifications for those cars have yet to be determined, and that Phillips has not made any declaration regarding the utilization of the DOT-117 cars.

*As of October 22, 2014, the company had bought or ordered 3,200 railcars, and planned to boost its fleet to 3,700. http://www.reuters.com/article/2014/10/23/crude-freight-unloading-idUSL2N0SI03D20141023

A-8. HAZARDS AND HAZARDOUS MATERIALS:

g. It's Not Only The Accidents, It's The Long-Term Aftermath The County Would Face (4.7)

In deciding whether to approve the Phillips Rail Terminal Project, it's critical that the REIR and our Planning Commission look not only at the proposed mitigation measures, but it must look at what would happen long-term, should a rail accident occur in our community ... that is, the aftermath of such a disaster.

To understand it all, we can look at the aftermath in Lac-Mégantic, Canada, six to eight months after their catastrophe.

- The incident itself left horrid memories for those who were there in July, 2013. Dominique Dostie, a volunteer firefighter recalled - "*As soon as the crude oil left the tanker, it was on fire. Copper plumbing melted. Tracks twisted and melted. Manhole covers blew from pressure below. It was like hell*", he said.

- In January 2014, 47 Christmas trees were still standing in front of St. Agnes Church, honoring the 47 townspeople who were killed by the inferno.

- Roger Garant, a city councilman, recalled that "*The downtown vanished.*" Then he said "*Who can we blame? Who killed my best friend? All we know is that it was a train.*"

- Resident Claude Bedard described the scene as "*Dreadful. We've never seen anything like it. The Metro store, Dollarama, everything that was there is gone.*"

- Resident Marlaine Savard said that as the fire raged, *"We knew for sure that people were dying."* Seven months later, after the disaster, she described her town -- *"It's like 50 football fields that are highly contaminated."* Finally, she added with sarcasm - *"The first thing they rebuilt was the railroad."*

- A Wall St. Journal article asked, *"where will the money come from to rebuild?"* Then it reported -- *"The cleanup alone is running $4 million a week. The Canadian government said it may total $200 million."*

  The Journal added -- *"Beyond that comes expenses for rebuilding the library and more than 100 destroyed homes and businesses, and settling lawsuits filed by survivors. The train's operator had liability insurance of $25 million ... and has filed for bankruptcy. So far, the Canadian and provincial governments are picking up the steadily growing tab."*

- James Beardsley, rail practice leader for Marsh & McLennan commented -- "*There is not currently enough available coverage in the commercial insurance market anywhere in the world to cover the worst-case scenario.*"

- Too late, 8 months later, the town's mayor, Colette Roy-Laroche, told the railroad's owner - *"We want the tracks out of our town."* She added -- *"What I'd like to remind people of, are the costs related to the catastrophe. The cleanup costs, the decontamination, the restoration, the support for a population that is still in distress and still struggling to recover."*

MRWG 45

(continued)

g. It's Not Only The Accidents, It's The Long-Term Aftermath The County Would Face (4.7), cont.

All of this is but a brief description of the overall aftermath. Unfortunately, it's also an indictment of the local Canadian officials who did nothing to prevent crude-by-rail from gaining access to their communities.

We hope our officials will have far greater foresight. The aftermath of Phillips' "crude-by-rail" strategy is too grim to imagine.

MRWG 45 cont

But for them to gain far greater foresight -- the REIR must first delve into what the long-term aftermath would actually be like. Surely, that type of "impact" would be within the REIR's scope.

http://online.wsj.com/news/articles/SB10001424052702304773104579268871635384130 (Jan. 8, 2014)
http://www.fireengineering.com/articles/2013/07/train-carrying-crude-oil-derails-in-quebec-causes-explosions.html (7/6/13)
http://sanfrancisco.cbslocal.com/2014/03/06/explosion-survivor-warns-of-fracked-oil-trains-newer-safety-regulations-delayed/(Mar. 6, 2014)
http://www.cp24.com/news/lac-megantic-mayor-we-want-tracks-out-of-our-town-1.1705294
http://www.theglobeandmail.com/news/national/lac-megantic-mayor-presses-us-for-regulatory-changes-in-rail-transport/article17433994/

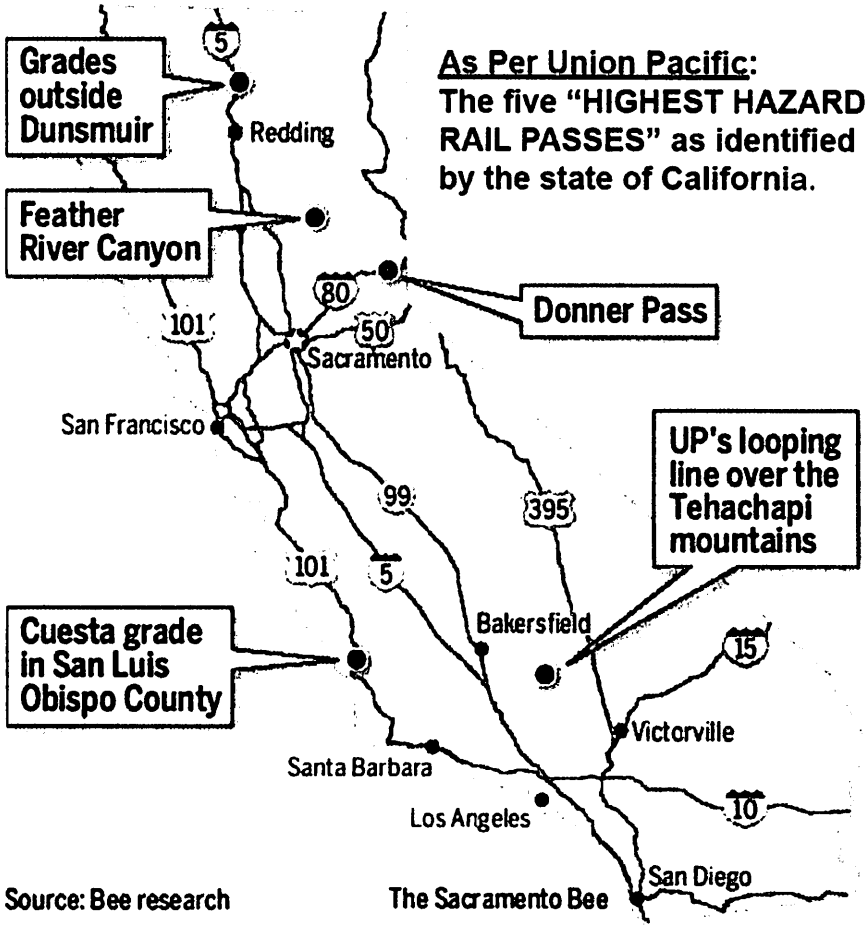
A-8. HAZARDS AND HAZARDOUS MATERIALS:
h. The Danger Of Transporting Crude Oil Down The Cuesta Grade (Section 4.11)

Under the Phillips 66 proposal, five trains each with 80 fully-loaded oil tankers would arrive at the Santa Maria Refinery each week. This means that 20,800 loaded tank cars per year would be entering our County headed to the Nipomo Mesa.

A great many of these trains will come from the north and have to pass up over and then down the Cuesta Grade. That grade exists in a very mountainous area north of the city of SLO. It's an extremely steep pass, with a 7% slope. At its maximum height it's approximately 1,300 feet above sea level (about 1/4 mile high).

Those who've driven south down the grade on Highway 101, know how hair-raising and potentially dangerous that area is. Regardless of the precautions one takes, it's perfectly made for "runaway" cars and trains. And under the Phillips plan, their fully loaded tank cars would make their way, precariously down the Cuesta Grade. And on their return north, the same tankers would navigate the Grade yet again.

As shown below, the UPRR identifies the Cuesta Grade as one of the five "highest hazard rail passes" in California.



MRWG 46

(continued)

h. The Danger Of Transporting Crude Oil Down The Cuesta Grade

Let's calculate how heavy each fully loaded train would be coming down the Grade, and the momentum each could have:

- There would be three locomotives per train. Today's locomotive weighs an average of 200 tons, so that's 600 tons of locomotives per train.
- Each empty tanker weighs 65,000 pounds (32.5 tons).
- According to the REIR, each tanker has a weight limit of 210,700 pounds of crude oil (105.4 tons).
- So each full car would weigh 137.9 tons.
- Therefore, 80 cars per train would weigh 11,032 tons.
- So with locomotives and full tank cars combined, that mean trains weighing 11,632 tons each would come down the Cuesta Grade (not to mention the weight of the two buffer cars).

MRWG 46 cont

One of Newton's laws certifies, *"objects in motion will remain in motion."* And when an almost twelve-thousand ton object carrying crude attempts to come down the Cuesta Grade, somewhere in our future is a disaster.

Indeed, the REIR states (4.11-25) *"In San Luis Obispo County, the Cuesta Grade represents an area where a runaway train could occur. A runaway train coming down the Cuesta Grade could result in spills of crude oil and associated fires."*

Just one other fact - in 1959 two passenger trains collided in SLO County. The locomotive of one train slammed into the cars of the other, derailing both trains, ripping out 700 feet of track, and causing five injuries. One train caught on fire. Remarkably, there were no deaths. Where did this occur? On the Cuesta Grade. Yes, it occurred long ago. And yes, there's no reason why it couldn't occur again.

We believe the REIR minimizes the potential for train accidents on the Cuesta Grade. Simply stating that it's possible is simply not strong enough. There have already been train accidents there. The REIR should be rewritten to explain this and explain specifically why allowing 11,632-ton trains on the Grade is a public danger.

http://en.wikipedia.org/wiki/U.S._Route_101_in_California
http://sloblogs.thetribunenews.com/slovault/2009/10/southern-pacific-lark-trains-collide-on-cuesta-grade/

A-8. HAZARDS AND HAZARDOUS MATERIALS:
i. Individual Points Of Failure For Derailments Are Unidentified Or Minimized (Section 4.7)

Section 4.7.1 of the Phillips 66 Rail Spur Project DEIR relies on historical accident data aggregated over long stretches of trackage to predict the statistical risk of an accident at a single location. It then overlays population densities in an attempt to equate those aggregated risks to potential impacts.

However - rail accidents do not happen per mile, they happen at specific locations. Potential impacts and possible mitigations can vary dramatically from location to location even over short sections of trackage.

Therefore, the REIR requires a single point of failure analysis. This analysis should evaluate each individual location where the rail lines are in close proximity to vulnerable populations and infrastructure. Failing to assess self-evident, single point impacts is a failure to meet CEQA law requirements for analysis, public disclosure, and mitigation.

Even where it is anticipated that Federal preemption of railroads precludes mitigation of single point impacts under the project, decision makers have a duty to consider these potential impacts on the County and its residents during project review. By relying entirely on aggregated statistics, Section 4.7.1 as drafted denies them the information they need.

- For example, Table 4.7.3 identifies UPRR Coast Line (Cuesta Grade) as a 14.0-mile safety hazard site. A train derailment and oil spill or fire could happen anywhere along the section, either above ground or within tunnels, with similar potential impacts and required response actions from UPRR and the County.

MRWG 47

- HOWEVER, there are at least **TWO OBVIOUS CHOKE-POINT LOCATIONS** in that section that can have a significantly greater impact because of vulnerable infrastructure. These are not specifically identified and analyzed:

  - The U.S. Route 101 crossing near Cuesta Pass.

  - And, the 120-year-old Stenner Creek trestle at the bottom of Cuesta Grade, poised precariously over the San Luis Obispo City water treatment plant.

Impact mitigations at these locations – and similar utility and transportation corridors elsewhere that can have a wide reach - are theoretically possible. But, failure to at least acknowledge them invites criticism of the project's thoroughness and our citizens' knowledge of them and our ability to respond. Therefore, the dangers are hidden from the public.

We therefore consider the Final EIR to be incomplete.

- **Vulnerable Populations:** Likewise, vulnerable populations, such as hospitals, schools, or large venues, and economically vital industries, sensitive habitats, and historical places that can be affected need to be individually identified, and potential impacts addressed. If not -- we consider the REIR the Final EIR to be incomplete.

A-8. HAZARDS AND HAZARDOUS MATERIALS:
j. The Widespread Evacuation Required By A Major Rail Accident (Section 4.7)

If we've learned at least one thing from the crude oil train accidents that have already occurred, it's that the immediate impact is not limited to the accident site alone.

For example, take the Casselton, ND accident ... where 18 tank cars exploded, toxic fumes were released, and 400,000 gallons of crude oil spilled. What happened immediately after the accident?

- All 2,300 Casselton residents were asked to evacuate their town. In fact, there was a 5-mile evacuation zone set up. Shelters were then set up outside the zone, where townspeople could then wait out the evacuation period.

Heaven forbid, but if such an accident occurred in SLO County, there would be one major difference between us and the Casselton disaster. Instead of having 2,300 residents, SLO County has 274,000 residents. And it's likely that far more people would be included in a 5-mile evacuation zone.

Let's take the city of San Luis Obispo, with a population of 45,000, not to mention the 18,000 students at Cal Poly. The oil trains would come right past the campus into downtown SLO. If downtown SLO were ground zero, and we drew a 5-mile evacuation circle around downtown, how many men, women, children and students would be encircled?

We don't know that answer and don't wish to find out. And we don't wish to find out how long they'd be homeless.

MRWG 48

In addition, the evacuation zone would not only affect people, but places and things as well.

- All the businesses within 5 miles, damaged or not, would be shut down ... perhaps for weeks or months, losing tens of millions of dollars of revenues and profits.

- The fallout of petroleum residue from oil fires could coat a large area, perhaps well beyond 5 miles.

- Ash would settle on blooming agricultural crops, making them worthless.

- Ash could also potentially poison the soil making the growing fields useless for some indeterminate time.

So we need to learn from what other communities have gone through. We need to recognize that these accidents happen in a single spot, but the impact mushrooms out across huge swaths of those communities.

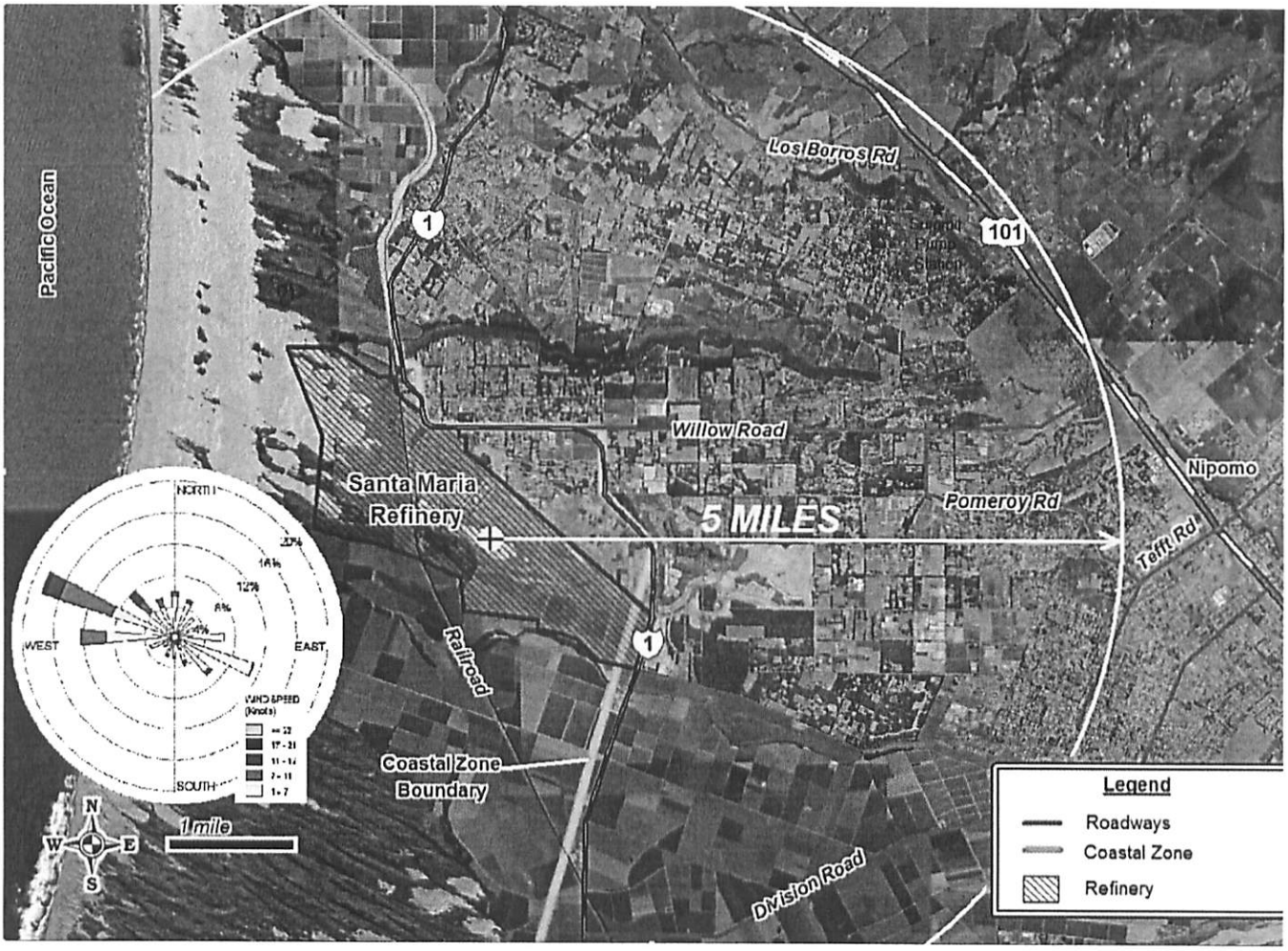
The risks are too great. The potential fallout is too widespread. The Phillips 66 Rail Terminal project should be denied.

The REIR does not properly alert the public to the reality of what would occur. It merely hints at it all in soft-speak and bureaucratic terms. The REIR must do a far better job of explaining the scope of the evacuation and it impact across the public and local businesses.

http://usnews.nbcnews.com/_news/2013/12/30/22113442-mile-long-train-carrying-crude-oil-derails-explodes-in-north-dakota?lite

(continued)

j. The Widespread Evacuation Required By A Major Rail Accident



MRWG 48 cont

A-8. HAZARDS AND HAZARDOUS MATERIALS:
k. Phillips' Refineries Are Not Invulnerable To Accidents (Section 4.7)

We applaud the Nipomo Refinery for claiming an exemplary safety record. **(Although we could describe equipment failures and the necessary, subsequent flares at the plant in recent years.)** Nevertheless, we cannot take past performance as guarantees of safety in the future. The reasons ...

- No-one can guarantee an accident-free industrial site. It's just not possible.

- And more importantly, Phillips is completely changing the game at its facility ... it is changing its method of conducting business. For the very first time - it is asking to bring in 260, 1.5 mile-long crude oil trains each year (and 260 trains exiting the site). It is asking permission to build a rail terminal ... one that includes a pumping station to offload the crude. So, given an entirely new method of operation, their past safety record CANNOT be taken into account.

More specifically, the REIR needs to look at whether the Phillips corporation is invulnerable to accidents and to releases of pollution at its plants in general. In just the last few years ...

- In June, 2012 at a Phillips refinery in Contra Costa County, CA -- a tank was over-pressurized, causing a 20-foot rupture in the tank, releasing vapors of sulfur compounds and natural gas into the air.

- In November, 2013 at a Phillips refinery in the United Kingdom -- an accident occurred in which steam leaked from a plant. Two workers were seriously injured, then airlifted to a hospital, where one was classified as being in critical condition.

- In December, 2013 at a Phillips refinery outside Long Beach, CA -- an accident occurred leaking sulfur dioxide into the air. Workers were told to seek shelter inside buildings. But 11 workers needed emergency treatment at a hospital, because they'd already breathed in the hazardous material. MRWG 49

- In March, 2014, Phillips was fined almost a quarter million dollars by San Francisco Bay air quality officials for 19 air pollution violations that had occurred in previous years.

- Also in March, 2014, at the Phillips refinery in Borger, TX, planned maintenance work involving acid resulted in three workers being hospitalized, with one transferred to a burn unit.

- In May, 2014 the Santa Maria refinery had to be shut down due to a malfunctioning boiler ... leading to flaring and black smoke billowing from the flare stack.

- Then on May 20, 2014 a complete power failure occurred at the Santa Maria refinery, also causing an unscheduled shutdown and intense stack flaring with black smoke fouling the air.

- Plus, mechanical failures and human error occur at Phillips refineries all year long, but are never covered in the news. The minutes of their meetings are online, describing these incidents.

So, regardless of Phillips claimed safety record at its Nipomo refinery, the firm is clearly not invulnerable to accidents. And if the Rail Terminal project is approved, the odds of a serious accident occurring at this facility will be vastly increased due to a dramatic, more intensive change in their method of operation.

The REIR must be rewritten to address this increase in intensity of operation and the increased risk of accidents. The only way to prevent this is to deny approval of the Rail Terminal project.

(continued)

k. Phillips' Refineries Are Not Invulnerable To Accidents

http://www.dailybreeze.com/general-news/20131231/11-workers-treated-after-hazardous-materials-leak-at-phillips-66-refinery-in-wilmington

http://www.latimes.com/local/lanow/la-me-ln-phillips-66-wilmington-workers-20131231-story.html

http://www.grimsbytelegraph.co.uk/Conditions-unchanged-workers-seriously-injured/story-20021439-detail/story.html

http://www.ksby.com/news/phillips-66-fined-230k-for-sf-bay-air-violations/

http://globalnation.inquirer.net/99022/calif-releases-final-report-preventive-steps-for-oil-refinery-safety

http://www.phillips66.com/EN/about/our-businesses/refining-marketing/refining/SFRPA/Documents/Mins082712c.pdf

http://www.phillips66.com/EN/about/our-businesses/refining-marketing/refining/SFRPA/Documents/P66-Min-102212f.pdf

http://www.phillips66.com/EN/about/our-businesses/refining-marketing/refining/SFRPA/Documents/Mins062512b.pdf

http://amarillo.com/news/latest-news/2014-03-19/borger-refinery-mishap-hurts-several-workers

A-8. HAZARDS AND HAZARDOUS MATERIALS:
1. The Need To Specify The Places And People The Rail Project Puts At Risk (Section 4.7)

If the REIR is to fully communicate the potential impact the Rail Terminal project would have on SLO County, it must specifically identify the main areas in SLO County put at risk. The REIR fails to identify those locations. In fact, those locations encompass the vast majority of SLO County.

The REIR should clearly state that each of the trains entering SLO County from the north would put at risk each of the locations below. (Of course, as the trains leave the County, the locations would be exposed a second time.)

- From the north, the trains would pass directly through downtown San Miguel (population 2,300).
- North of Paso Robles they'd pass by vineyards such as Echelon Vineyards, San Marcos Creek Vineyards, and Ada's Vineyard. They would also pass by the Vines RV Resort by about 500 feet.
- In Paso Robles (population 30,000), they'd head past the Fairgrounds by about 500 feet, where the Mid-County Fair is held, and also right by the Travelodge, Best Western, Holiday Inn and Motel 6.
- In downtown Paso, the tank cars would pass City Park on the east side by about 500 feet.
- A bit south they'd pass right next to the Firestone Walker Brewery.
- In Templeton (population 7,600), they'd go past Templeton Park by about 1,000 feet.
- Then they'd make their way down along the east side of the city of Atascadero (population, 28,000). MRWG 50
- Next they'd go through downtown Santa Margarita (population 1,300), about 500 feet from the elementary school.
- They'd hug the 101 for many miles, then curve back and forth down the long, serpentine Cuesta Grade.
- Next, the 18,000 Cal Poly students would be able to wave to the tank cars, as it winds through their campus.
- In the city of SLO (population 45,000), the tankers would ride adjacent to Pepper St., 2,000 feet from City Hall, and even closer to the Government Center building.
- They'd then pass within literal shouting distance of French Hospital.
- Heading out of downtown, they'd pass approximately 3,000 feet east of SLO's regional airport.
- They'd pass through the backyard of the Los Ranchos Elementary School.
- As they begin to enter Pismo Beach (population 7,700), trains would mirror Price Canyon Road.
- They'd then cross Highway 101 at 5 Cities Drive, about 750 feet west of the Premium Outlets, and about 2,000 feet from the Pismo Coast Shopping Plaza.

(continued)

l. The Need To Specify The Places And People The Rail Project Puts At Risk, cont.

- They'd pass around 1,400 feet to the east of Rosa's Italian restaurant (and other eateries) on Price St. in downtown Pismo.
- They would then parallel Highway 1, passing by the North Beach Campground, by about 1,000 feet.
- They'd also pass about 100 feet from the entrance to the Monarch Butterfly Grove in Pismo.
- In Grover Beach (population 13,000), they'd cross the busy intersection at Grand Avenue, just down the street from where tourists and locals take their vehicles onto the beach ... and near the new lodge and conference center that will be built there.
- In Oceano (population 7,200), they'd go right past Pier Avenue, another beach entrance for tourists and locals, and then pass right by the entrance to the Great American Melodrama theater.
- They'd then wind their way south through agricultural fields. They'd rejoin Highway 1, coming as close as about 100 feet to the west. At that point they'd be in Arroyo Grande (population 17,000). And they'd pass Lopez High School by about 1,300 feet.
- Their journey through SLO County would then end, at the new rail terminal in the Santa Maria Refinery on the Nipomo Mesa.
- That proposed terminal is also directly across Highway 1 from the communities of Trilogy, Black Lake and others that are now in the planning in Nipomo (population 16,000).
- Of course, once each of the 1.5 mile-long tanker trains unloads, it would head back north again, following the exact same route.

MRWG 50 cont

A-9. LAND USE:

a. A Crude Oil Rail Yard & Terminal Is A Vastly Intensified Use Of The Refinery, Incompatible With Adjacent Residential Zoning (Section 4.8)

Over the last two decades, SLO County planners have encouraged residential growth and master planned communities as desirable land use on the western Nipomo Mesa, near the Santa Maria Refinery. More specifically, their intended strategies triggered the building of communities with above-average tax bases per home.

In response to the planners' blessing, far more than 5,000 residents have already decided to live on the West Mesa, and the population continues to grow. Indeed, the County encourages expansion of existing communities and the construction of entirely new ones.

The growth of these communities was obviously applauded by past SLO County planning commissioners. The communities were purposely licensed, to be built with the expectations of beautiful views, golf courses, a resort hotel, and a serene way of life. The area was to become and has become, a divine place to visit and play, and a prime place to live and retire.

The result -- the median home value in Nipomo rose by an impressive 14% from 2012 to 2013, to over $400,000, and that's projected to continue rising. Of course, accompanying that growth are major increases in the tax coffers, to be used for the betterment of SLO County overall.

However, an oil-terminal RAIL yard, will generate far greater intense activity than the historic, benign delivery of crude by pipeline. Instead of crude conveyed silently, safely and unobtrusively, an entire new facility will be constructed ... with 520, 1.5 mile-long crude oil trains arriving and departing each year. Tankers would noisily be uncoupled from their 37locomotives. A half-billion gallons of crude would have to be pumped out. The tankers would then have to be hooked up to locomotives again. Plus, there would be numerous support machines and vehicles, all in constant motion, all year long. MRWG 51

The REIR states (4.5.1.4) that *"between 1994 and 2011* (an 18 year period in which the Nipomo Mesa residential communities were built) *the only discernible activity is within the coke yard."* Therefore, building a rail terminal and unloading facility, plus the arrival and departure of 520 trains per year, will be a sea change in the amount of activity residents will be exposed to.

There would also be the greatly increased potential for oil spills. And the trains and terminal would add air pollution, noise pollution, odor, motion and light pollution.

And of course, a crude oil train accident could potentially wipe out large parts of Nipomo, Arroyo Grande, Oceano, Pismo Beach or SLO, and/or destroy their environments.

The greatly enhanced intensity and danger of what Phillips proposes, changes the entire game for Mesa residents and for the citizens of SLO County. In effect, it pulls the rug out from what was originally intended by the planners.

Simply stated - delivery of crude oil to a rail terminal station conflicts dramatically with delivery of crude via pipeline. There is no comparison. It's an entirely new method of operating.

(continued)

a. A Crude Oil Rail Yard & Terminal Is A Vastly Intensified Use Of The Refinery, Incompatible With Adjacent Residential Zoning, cont.

Therefore, approving the project is inconsistent with the historical decisions made by planning commissioners for the Nipomo Mesa. It would be incompatible with the long-term residential land use, planning and zoning decisions previously and consciously made for the area. The specific promise to residents of a safe, peaceful and pollution-free environment, must be kept.

Our County's planners have the responsibility to see that what happens in the area will not destroy its very essence, simply to satisfy the financial desires of a single corporation ... one whose operations would be horribly intensified and invasive to residents' lives.

We hope that the Planning Commissioners will live up to the department's stated mission -- *"Promoting the wise use of land - helping build great communities."*

MRWG 51 cont

A-9. LAND USE AND RECREATION:
b. Major Technical Deficiencies In The REIR (Section 4.8)

The REIR states (page 4.8 – 14, section 4.8.3) the criteria for determining the threshold for impact significance of the importation of crude oil, for the Rail Terminal Project ...

"Impacts would be considered significant if the proposed project would:

a. Be potentially inconsistent with land use, policy/regulation (e.g., general plan [County Land Use Element and Ordinance], Local Coastal Plan, specific plan, Clean Air Plan, etc.) adopted to avoid or mitigate for environmental effects.

b. Be potentially inconsistent with any habitat or community conservation plan.

c. Be potentially inconsistent with adopted agency environmental plans or policies with jurisdiction over the project, or ...

d. Be potentially incompatible with surrounding land uses."

1. Minimizing The Expansion Of Intensity Of Land Use: (Page 4.8-17, paragraph 3) Drafters of the DEIR attempt to minimize the picture painted by the expansion eastward of the heavy industrial operations where 13 million barrels of oil per year would be imported in to the Nipomo Mesa for refining at the Phillips 66 facility.

Saying that *"approximately 2.5 percent of the total undeveloped buffer area"* would be converted to industrial use is practically irrelevant. The fact that intense industrial operations would be projected eastward for over a mile toward the homes in the Trilogy/ Woodlands development would be a more honest characterization. MRWG 52

That the existing buffer distance would be depleted by over 57% (0.8 miles) is more pertinent than the acreage removed from the buffer area by such a linear project. This is inconsistent with above bullet points number 1, 3 and 4, and should exceed the threshold of "significance" for the adopted County Plans.

2. Characterizing The Land Use As Only "Intermittent": (Page 4.8-17, paragraph 4) The REIR states that the *"uses proposed within the undeveloped area would be limited to the intermittent holding, movement and staging of trains"* This is ridiculous. There is nothing "intermittent" about importing 13 million barrels of crude oil per year, nor the staging of 400 tank cars every week. These are significant impacts despite the disingenuous turns of phrase used in the DEIR.

The writers use their first characterization of the use of the buffer area as "intermittent" as justification to then say that since the buffer area is not in use all of the time that it may therefore *"serve as an area where wind-carried air pollutants from the heavy refining and processing activities within the coke processing facility and fenced refinery area could be deposited."* This is also a ridiculous statement. MRWG 53

Although some particulate air born pollutants from the coke operation may settle in the buffer area (and could easily be disturbed and re-launched into the atmosphere), the types of pollutants emanating from the refinery will not be settling out and deposit themselves on the ground in the buffer area.

(continued)

b. Major Technical Deficiencies In The REIR, cont.

In fact, the paragraph goes on to describe air pollutants from diesel powered locomotives that will *"represent a potential health hazards to the surrounding residential areas. A health risk assessment conducted as part of the air quality analysis determined that the health risk associated with the existing SMR was above the thresholds established by the SLOAPCD..."*

So if the existing SMR already is already above air pollutant thresholds established by the SLOAPCD, how will expanding the facilities and using rail imports of crude oil be consistent with the South County Coastal Area Plan?

MRWG 53 cont

Well, it will not, as stated: *"With the addition of the Rail Spur Project the health risk would be above the thresholds established by the SLOAPCD. Implementation of the identified mitigation measures would not reduce the health risk to below the thresholds established by the SLOAPCD ..."*

Despite a somewhat skewed characterization in the beginning of this part of the discussion/analysis, the conclusion is that *"this impact could potentially be inconsistent with this policy."* (The buffer policy of the South County Coastal Area Plan)

3. **Misinterpreting The Meaning Of The South County Rural Area Standards:** (Page 4.8-18, paragraph 4) This analyzes the project as it relates to the South County Rural Area Standards. It brushes aside the written policy entirely as it relates to the proposed Rail Spur Project, by simply stating that even though the policy is aimed squarely at the refinery operations and offshore oil processing and never considered the possibility of crude oil importation by rail, the authors must have somehow meant to include the Rail Spur Project. That is an enormous, illogical leap.

This is an extensive policy and must have taken a fair amount of time to work out and adopt. Among the policy standards is this: *"Any expansion or modification of existing petroleum processing or transportation facilities or the construction of new facilities shall meet San Luis Obispo County Air Pollution District (APCD) standards. (LCP)"*. (reference Appendix G, page G-66).

MRWG 54

As stated above, and in the DEIR, the health risks will be above the thresholds established by the SLOAPCD. Yet the DEIR authors reach the conclusion that the *"Rail Spur Project would likely be consistent with the intent of the policy, and any remaining inconsistencies would not result in adverse physical effects on the environment due to the compatibility of the proposed uses and surrounding areas and the limited nature of the changes proposed to the existing operations."*

This argument defies the all logic. On the one hand the Rail Spur Project is called potentially inconsistent with policy because of its exceedances of air quality standards. But here the authors ignore the inconsistency entirely as it applies to the South County Rural Area Standards written directly for the facilities at the SMR (under earlier ownership). This does not work and it appears that the Rail Spur Project is inconsistent with the policy, contrary to the DEIR conclusion.

(continued)

b. Major Technical Deficiencies In The REIR, cont.

4. Agreement - The Project Is Inconsistent With Use Of The Land: (Page 4.8-18, last paragraph) Despite skewed logic and analysis for some component parts of this "land use" section, the final conclusion is flawless and we are in agreement: *"Due to the significant and unavoidable health risk impact, the Rail Spur Project could be inconsistent with this policy. Therefore, from a land use perspective the impacts would be significant and unavoidable."* MRWG 55

5. Removal Of A Critical Buffer With Residential Communities: Over the course of many years, the County has approved many residential projects on the Nipomo Mesa. It is logical that the County was counting in part, on the open space buffer area around the SMR to alleviate or mitigate the close proximity between a heavy industrial operation and people's homes.

The Rail Spur Project proposes to eliminate most of the buffer and substitute in its place heavy industrial operations that would increase the health risks, noise, light and other adverse polluting effects. The residents and the County are being asked to accept a project that harms them in order to provide cost advantaged crude oil from afar to the Phillips 66 Refinery. The REIR ignores removal of the buffer and its impact on citizens. MRWG 56

6. A Land Use Conclusion That Is Baffling And Incomprehensible: (Page 4.8-22, paragraph 5) This paragraph is utter nonsense. Basically what is said here is that aside from land use incompatibilities that make the Rail Spur Project incompatible, all of the other analysis in the DEIR are a good indication of how compatible the Rail Spur Project is, *"including air quality, noise, odor, and hazards..."*!

Just a few pages before this conclusion is this: *"With the addition of the Rail Spur Project the health risk would be above the thresholds established by the SLOAPCD. Implementation of the identified mitigation measures would not reduce the health risk to below the thresholds established by the SLOAPCD ..."* MRWG 57

Further confusion is immediately supplied to the reader with, *"Typical effects of impacts associated with these types of incompatibilities include health risks, public safety issues, and the inability to sleep, relax, or enjoy the full use of one's property."* So which is it, compatible or incompatible? The REIR is inconsistent.

7. Proposed Land Use That Will Generate "Readily Noticeable Noise" - But This Is Ignored: (Page 4.8-23, paragraphs 1 & 2) A 5 dBA nighttime noise increase is predicted as a result of the Rail Spur Project. That increase is called *"readily noticeable"* at nearby residences. We presume that such nighttime noise will disrupt sleep. But because of the Union Pacific RR noise 1.5 miles away and the noise from Highway 1, the conclusion is that there is no land use incompatibility, even though there is readily noticeable noise from the Rail Spur Project!

The conclusion defies logic and all experience. This is the exact sort of incompatibility that should be avoided. It's why a heavy industrial facility should not be expanded in such close proximity to residences. MRWG 58

Anecdotally - one Trilogy home is located a further 0.75 miles away from the proposed Rail Terminal. The homeowner can clearly hear nighttime trains as they move through the grade crossing at Oso Flaco ... not just the horn warnings but the wheels on the tracks. It is easy to discern the difference at that distance between Highway 1 noise and that of the UPRR train movement. And if a 5 dBA intermittent noise was added, that would be readily noticeable as well. The REIR's conclusions are misleading and unacceptable.

(continued)

Major Technical Deficiencies In The REIR, cont.

8. The Land Use Will Have A Major Visual Impact On The Proposed Hotel: (Page 4.8-23, paragraph 3) Visual impacts are discounted here as having no risk of harm other than annoyance, concluding that there would be no land use incompatibility and potential impacts would be less than significant. The authors have missed part of the point of this REIR section, and failed to incorporate the policy review from Appendix G (Strategic Growth Goal 2; page G-4).

There is a resort hotel pad in the Trilogy/Woodlands development that overlooks the proposed Rail Terminal Project. According to policy, this would have priority over non-visitor serving industrial development within the Coastal Zone.

There is an obvious conflict and incompatibility here, but the REIR fails to mention this. The explanation for the "potentially consistent" designation in Appendix G totally misses the point. The Rail Terminal Project being consistent with the existing industrial refinery has nothing whatsoever to do with the policy objectives. Once again, application of twisted logic does not make a good argument. The proposed Rail Terminal Project in the Coastal Zone would have a negative effect upon a visitor serving facility, and this DEIR does not even address the issue. MRWG 59

The REIR must be rewritten. It must address all of the confusion, misleading conclusions, and misinterpretations listed above.

A-9. LAND USE AND RECREATION (Section 4.8):
c. Inconsistencies Between The Phillips 66 Project And Applicable County Land Use Policies

The California Environmental Quality Act (CEQA) requires that the EIR discuss any inconsistencies between the proposed project and applicable County land use policies. Inconsistency with public plans creates significant impacts under CEQA.

Appendix G of the Recirculated Environmental Impact Report (REIR) reveals the many inconsistencies the Rail Terminal Project has with San Luis Obispo's land use policies. Among the inconsistencies detailed in the report are:

- **Strategic Growth Goal 1: Preserve, protect, AND IMPROVE the air quality of the County**: The analysis in the new Draft Environmental Impact Report states The toxic air emissions would exceed the acceptable levels determined by the San Luis Obispo County Air Pollution Control District and would be inconsistent with the land use policy.

- **Land Use Goal 4: Provide areas where agricultural, residential, commercial and industrial uses may be developed IN HARMONY.** The analysis states The project would modify an existing industrial use that would result in significant health risk impacts to the closest residences and would be inconsistent with the land use policy.

- **Policy E 7.1: Energy, fossil fuel, and related facilities will be sited and operated in a manner to PROTECT the public from hazards and significant environmental impacts.** The analysis states The project would modify and expand industrial uses and activities that could INCREASE potential hazards and would be inconsistent with the land use policy.

- **Policy E 7.1.1: Major additions to energy and fossil fuel facilities will provide a sufficient buffer zone from existing or proposed human populations.** The analysis states The proposed rail spur proposes alterations to the existing refinery and coke processing facilities that would encroach into the existing buffer zone from human populations and would be inconsistent with the land use policy. MRWG 60

- **SL 3.1.5: Establish mitigation strategies for loss of agricultural soils:** The analysis states The conversion of soils would cause loss of future agricultural use and no mitigation is proposed. Therefore it is inconsistent with the land use policy.

- **Goal S-4: Reduce the threat to life, structures and the environment caused by fire:** The analysis states that The potential threat to life, structures and the environment due to a derailment along the mainline tracks would allegedly be mitigated by plans that the County would be preempted by Federal law from implementing and therefore would be inconsistent with the land use policy.

- **Policy S-14: Ensure that adequate facilities, equipment and personnel are available to meet the demands of fire fighting.** The analysis states The County lacks Hazmat teams with adequate personnel and training for responding to fire and explosions along the mainline track and would be preempted from implementing the mitigation measures suggested. The lack of personnel and training would be inconsistent with the land use policy.

- **Policy S-26: Reduce the potential for exposure to humans and the environment by hazardous substances.** The analysis states that Delivery of crude oil by rail was found to be a significant risk and Federal Law will preempt the county from enforcing the proposed mitigations. Therefore the increased risk from hazardous substances is inconsistent with the land use policy.

(continued)

c. Inconsistencies Between The Phillips 66 Project And Applicable County Land Use Policies, cont.

Phillips will tell you that it's okay -- that there are already crude oil unit trains traversing our county. That is like telling you there are already 3 rattlesnakes in your living room, so you wouldn't mind if Phillips adds 520 more in your bedroom, will you? Yes, our citizens DO mind.

Despite what the Revised Environmental Impact Report claims, Phillip's executives in Houston know that most of the proposed mitigations are the product of creative writing or are impractical. They know that SLO County has no power to regulate the types of diesel locomotives or crude oil rail cars that travel on the rails.

And who in this County will be paid to sit next to the rail spur (should it be built) at 3 AM with a stopwatch, making sure the locomotives don't idle for more than 15 minutes? This is an unrealistic situation!

MRWG 60 cont

Phillips' corporate executives in Houston have sent orders to the good people at the local refinery to convince us that a rail terminal is good for our citizens. We must tell you that it is not good. Not at the expense of the health, welfare, and safety of the 300,000 good people who live, work, vacation and study in San Luis Obispo County.

We urge our Planning Commission and Supervisors to study this issue closely, and recognize that the rail spur scheme is *inconsistent with the County's land use policies.*

The REIR must be rewritten to take into account the inconsistencies between the Phillips 66 project and the applicable SLO County land use policies.

A-9. LAND USE AND RECREATION:
d. The REIR Ignores The Impact On Existing Recreation Areas (Section 4.8)

Section 4.8 evaluation criteria examines whether or not this project, which represents an expansion of an existing industrial facility, might INCREASE demand for recreational areas adjacent to the project. This discussion is entirely wrong for an industrial project.

> **The real question should be: how is this project likely going to cause an ADVERSE impact on existing recreational areas open to the general public in the vicinity immediately adjacent to the project?**

Even if CEQA evaluation criteria are written to require such analysis from an increased demand perspective, a truly thorough evaluation of the impacts would certainly acknowledge the project may indeed have just the opposite effect and negatively impact recreation adjacent to the project.

The following public recreational areas currently exist all along the East side of the Pacific Coast Highway, Route 1, all within one-half to one mile from the proposed site for the P66 project:

1. **Multi-use Pedestrian Trail** – required by the County as a condition of approval of the Woodlands Specific Plan.

2. **Equestrian Trail** – also required by the County in the approved plan.

3. **Two Golf Courses** – open to the public 365 days per year (Monarch Dunes 18 hole course; and, the Challenge Course, 12 holes).

4. **Monarch Butterfly Habitat** – a protected, public area, particularly from October 1st each year through March 31st the following year, when the Monarchs are overwintering here. Frequently visited by children and adults.

5. **Public Roads** - used by dog walkers, cyclists, walkers, runners, etc., along the eastern perimeter of the Woodlands community – including Via Concha, Eucalyptus Rd., Louise Lane, and Professional Parkway.

6. **Public Sidewalks** - throughout in the Woodlands community, but most particularly on the eastern side along the Highway 1 perimeter (used by children and adults walking and playing in the community).

7. **Pocket Parks and Green Spaces** - throughout the community, the nearest ones being atop Eucalyptus Road, at the Louise Lane cul-de-sac, and at the Tomas Court cul-de-sac, all within populated residential areas.

8. **Two Restaurants** - open to the public (Butterfly Grille and Adelina's Bistro), both within less than one mile from the project.

9. **Outdoor Concerts** - open to the public, held multiple times each year at Trilogy.

MRWG 61

(continued)

d. The REIR Ignores The Impact On Existing Recreation Areas, cont.

And there are outdoor recreational facilities within the Trilogy community used by thousands of residents and guests each year ...

10. Tennis Courts - within less than one mile from the project.

11. A Bocce Court - within less than one mile distance from the project.

There is also ongoing residential and recreational development within this community adjacent to the proposed rail project. The Woodlands Specific Plan approved by SLO County includes a resort hotel at Kingston and Eucalyptus Rd, in very close proximity to the proposed rail project, with a full panoramic view of the Rail Terminal. Among other recreational amenities, the hotel would contain one or more public restaurants, and an additional golf course open to the public.

There would also be additional office space along Professional Parkway, and a planned continuation of the Multi-use Pedestrian and Equestrian Trails along the eastern and southern perimeters of the community.

MRWG 61 cont

See the Woodlands Specific Plan, Table 6, on page 97 for a full list of all approved Recreational Land Use categories.

Another large parcel of land situated on Trail View in the Trilogy community has been set aside and made available to the County for development as a future School with playgrounds, or a possible public park, which will add even more recreational areas.

The above existing recreational areas are used every single day of the year by many residents, guests, visitors, and the public. The proposed rail project, with all of the attendant potential impacts to air quality, noise, vibration, light and aesthetics, poses major risks to the health and welfare of County residents residing in close proximity to the project. It threatens the active lifestyle this community promotes and which SLO County has mandated as a condition of approval of the Woodlands community.

We urge you to revise Section 4.8 and include a full discussion of the potential ADVERSE impacts of the P66 rail project upon established and future planned Recreational Areas in close proximity to the project.

A-10. NOISE AND VIBRATION:
Unacceptable Noise Levels From The New Rail Terminal (Section 4.9)

1. The Results Of What P66 Proposes

The REIR indicates that *"The noise model produced similar noise increases with the project as the November, 2013 DEIR"* ... and that "*The exceedances of the noise thresholds at noise-sensitive receptors are a potentially significant impact.*" (see 4.9-25 of REIR).

The REIR further indicates (4.9-24) that:

> "*There are a number of uncertainties associated with estimating noise impacts. Meteorological conditions can strongly affect noise propagation and impacts, as most people have had experiences of hearing noisy activities a long distance from the source when the conditions are right. In addition, characterizing noise sources is challenging, as there are a number of potential activities, including hooking up rail cars, potential emergency annunciators and the low frequency locomotive noises that can travel long distances.*
>
> *"The models capture many of these issues, but there is not extensive data available on some issues, such as good octave band analyses of different locomotive arrangements, for example, that bring in a range of potential errors into the analysis."*

Furthermore, Phillips's noise testing could be said to be unreliable on its face. For example, let's look at the "testing" Phillips paid its consultants to do with regard to measuring the noise level of moving railcars. (See "Train Noise Measurements at the Existing Rail Spur, Noise Modeling Appendix at D.1-4).

This one-time, daylight-only test, which lasted less than 30 minutes, basically consisted of moving full and empty rail cars around the spur. A total of only 34 rail cars and 2 locomotive engines were used in this supposed exhaustive noise test. Based upon this solo test, the conclusion drawn by Phillips' hired consultants was that the highest noise levels measured for the locomotive engines and rail cars at the spur "*is more than 10 dBA below the daytime ambient noise levels, which indicate that activity on the existing rail spur ... is inaudible.*" MRWG 62

It seems obvious that a more realistic noise test, would utilize 80 tankers + three locomotives + two buffer cars. In fact, it is more than possible that there will be two full trains at the refinery at one time, as one train arrives as the other is still being unloaded. In addition, there was no simulation of the unloading of crude oil or even the coupling and uncoupling of the particular oil rail cars that would actually be utilized (if that is even known for sure at this time). There was also no simulation of contemporaneous noise that would be generated by any accompanying trucks and/or other vehicles that might reasonably be expected to be in the vicinity of the spur. And finally, in reality, there may be more actual (blaring) whistle blowing than was contemplated in the noise test.

The public and County officials should not assume that "all is well" based upon the very limited and unrealistic noise test. The REIR cannot extrapolate the noise impact from the limited, isolated tests that were conducted.

And also -- there should be the same types of testing as stated above, conducted along the mainline. What is the noise impact when Phillips adds 520 trains entering and leaving the County each year. What's the cumulative impact on citizens versus the cumulative noise that exists now on the mainline? And if the authors of the REIR are unable to conduct mainline testing, they should clearly state this ... that there will be Class I noise increases on the mainline that cannot be tested or mitigated.

(continued)

Unacceptable Noise Levels From The New Rail Terminal, cont.

FYI - a difference of 10dBA would be perceived as a doubling of loudness. "*Noise levels above 45dBA at night can disrupt sleep.*" (see 4.9-8 of REIR)

Construction of the proposed site will occur from 7am to 9pm Monday through Friday, and 8am to 5pm on Saturdays and Sundays ... but how long will the construction process really last? MRWG 62 cont

2. How The Noise Will Be Generated: Let's take a close look at what we'd be hearing from Phillips all year long ...

- Noise will come from blaring train whistles, as 260 fully-loaded, mile-long trains enter SLO County each year, moving from north to south.

- Noise will come from blaring train whistles, as another 260 empty, mile-long trains leave SLO County each year, moving from south to north.

- Even more noise will come from the same 260 empty trains leaving the County, because empty cars have a tendency to shake, rattle and roll with even greater intensity than fully-loaded cars.

- Track noise will be generated by the 520 trains coming and going each year. That's the seemingly, never-ending, "clickety-clack" sound produced by the wheels of trains moving over the rails.

- Engine and vibration noise will be heard as 200-ton locomotives are forced to idle at crossings, in virtually every town in SLO County. MRWG 63

In addition, locally on the Nipomo Mesa, here's what residents would now be hearing from the new Rail Terminal ...

- Engine and vibration noise will be heard as locomotives idle at the Nipomo refinery.

- Noise will be generated as the trains shuttle from one location to another at the refinery.

- Onsite, ongoing mechanical, operational noise will be heard on the Mesa from the new crude oil offloading facility, new pumping systems, HVAC equipment, and air compressors.

- Onsite, sharp clatter will be generated as locomotives disengage and then connect again with their tank cars ... 520 trains and 41,600 tankers a year.

- And also onsite, noise will be heard from additional vehicles, as cars, trucks and other construction and transport vehicles work to service the new rail operations.

3. The REIR's Proposed Noise Mitigation

- Phillips has proposed restrictions on times during the day and night construction would be allowed.
- The REIR describes some restrictions on locomotives which would be operating within the spur.
- The REIR mentions decibel limits on the unloading pumps and electric motors.
- The REIR discusses the installation of a berm at the top of the sloped grade at the end of the spur.

However, the REIR indicates that the berm would only produce a "nominal reduction" of noise. MRWG 64

(continued)

Unacceptable Noise Levels From The New Rail Terminal, cont.

4. Whistle Blowing At The SMR: Once a train leaves the Union Pacific Rail Road property and enters the SMR site it is subject to local regulatory authority. Somewhere in that transition when UPRR employees are positioning a train on the spur tracks, they (and not Phillips 66 employees) will be operating on Phillips 66 property. The UPRR employees may be prone to utilize their normal procedures, such as the use of horn communication in rail yards. In other words, would train horns be used in the middle of the night to communicate as train movement within the SMR? This transition is not considered in the DEIR. MRWG 65

5. Noise Generated By Train Repairs Is Not Addressed: The REIR states (section 2.3.1) that existing track 765 will be repurposed as a "bad order" track. Bad order tracks are used to repair railcars that require repair before they can be moved again. Repairs of railcars can be very noisy and time consuming depending on the type of repair. There is no description of the type of repairs to be done on-site at Philips, when they will be done during the day (daytime or nighttime), the level of anticipated noise, nor whether and how that noise will be alleviated. MRWG 66

6. Our Response

All the above items need to be addressed in a newly-written EIR. This includes the extremely inadequate noise testing and the need for proper testing, a detailed description of the extensive types of noise that will be created on the mainline and onsite at the refinery, inadequate information on whistle blowing, etc.

In addition - as per the REIR, Phillips is obligated to develop a Rail Unloading and Management Plan.

It is a given that trains would be moving about the spur at all hours of the night. However, the REIR leaves many details of this plan to be developed in the future ... therefore, we have no way of knowing or assessing what mitigation measures Phillips would take.

We need to be concerned when Phillips uses the phrase "*including but not limited to ...*" followed by a short list of procedures designed, but not guaranteed, to minimize noise levels, because as mentioned above, different locomotive arrangements could bring in a range of potential ERRORS into the noise analysis. MRWG 67

The REIR also states that Phillips must implement a Noise Monitoring Plan that outlines procedures for regular noise monitoring of the spur. The REIR gives only a bare bones description of what this plan would entail. The lack of specifics makes it difficult to assess such a plan at this time.

The bottom line ... we cannot, nor should we accept on blind faith that Phillips has in fact properly monitored noise levels in the past. Likewise, we should not accept that Phillips would monitor noise levels properly in the future.

Video: http://www.youtube.com/watch?v=11DTf6CYzHM&index=47&list=PL7A2C41AC7F231BD4

A-11. POPULATION AND HOUSING (4.10):
An Obvious Disregard For The Existing Population Of South County (Section 4.10)

The REIR section on Population and Housing focuses primarily on the impact on increased housing demand. It is woefully inadequate about addressing the effects of the Rail Terminal Project on existing local residences in proximity to the project.

a. Inadequate Information On Growth Rate: When discussing "Growth Rate" (table 4.10.1 & 4.10.2) only data through 2010 is included. However, much of the current growth on the Mesa (Trilogy in particular) has occurred between 2010 – 2014. In 2010, there were approximately 200 completed homes in the Woodlands (Trilogy). But from 2010 to present, there have been approximately 500 homes added to this community alone. MRWG 68

b. Inappropriate Information On Growth Rate: The REIR (4.10) focuses heavily on the entire County's growth and planning when the project will mostly impact growth on the Mesa, which represents 40% of the County's total growth in last 10 years. It focuses on the growth of San Luis Obispo as a whole rather than on the Mesa or even South County alone, which would be most affected by the Project. MRWG 69

c. Lack Of Explaining The Impact On Local Residents: Below are quotes from the report (4.10). While they discuss the expected growth in the local surrounding area, they do not elaborate on the impact or suggest mitigation measures. What is shown is a regurgitation of statistics, not a thoughtful, meaningful discussion of the outcomes/impacts of the Rail Terminal on current residents.

- *"Rural areas have experienced approximately 40 percent of the total growth in unincorporated areas of the county since 2000 (San Luis Obispo County 2013)."*
- *"Due to their size, location attraction or other factors, Nipomo and Los Osos are projected to absorb almost half of projected growth in unincorporated urban areas through 2030, with Nipomo projected to absorb approximately 30 percent of the total growth (San Luis Obispo 2013)."*
- *"There are a significant number of residences within 1 mile of the Project Site, predominantly located to the north and north east, in the villages of Calendar - Garrett, the Woodlands, Black Lake, and substantially developed rural areas west of the community of Nipomo (refer to Figure 4.8 -3, Surrounding Land Uses)."*

MRWG 70

d. San Luis Obispo County General Plan - Adhering To Its Intentions & Guidelines: (4.10.2.2) As specified in the REIR -- *"The San Luis Obispo County General Plan serves as the County's 'constitution' for land use and development. The plan analyzes issues of importance to the community, sets forth policies for conservation and development, and outlines specific programs for implementing these policies.*

"By virtue of state statutes and case law, all zoning, subdivision approvals, and public works projects must be consistent with the General Plan. Adopting and maintaining a General Plan allows local governments to analyze local and regional conditions and needs in order to respond effectively to the problems and opportunities facing the community. The Plan also defines the County's environmental, social and economic goals, creates a record of the County's policies and standards for the maintenance and improvement of existing development and the location and characteristics of future development, and provides citizens with information about their community and with opportunities to participate in setting goals and determining standards for community development." MRWG 71

We believe the County's General Plan was designed to protect the citizens of SLO County. We urge our Planning Commission and Superintendents to live by the Plan's intentions and guidelines in determining whether or not the REIR is truly protecting our citizens ... especially as it relates to change of use of land and incompatible land use. The REIR does not address protection of existing residents!

An Obvious Disregard For The Existing Population Of South County, cont.

e. The Potential Impact On Local Housing & People: (4.10.3) The REIR indicates that *"impacts would be considered significant if the Rail Spur Project would displace existing housing or people, requiring the construction of replacement housing elsewhere."*

It is well known that just within the last few years, allowing crude-by-rail projects has led to major disasters in both the U.S. and Canada ... disasters that have *"displaced existing housing or people."* For example ...

- In Lac-Megantic, Canada, a train carrying crude broke loose and rolled downhill into the town. All 72-cars on the train derailed on a sharp curve, crashed and exploded. The accident killed 47 people -- vaporizing many of their bodies. It flattened the center of their town.

- And just outside Casselton, North Dakota, a freight train derailed and crashed into a mile-long crude oil train. Thirty tank cars exploded. A huge fireball and plumes of black smoke went skyward. The blasts went on for hours, shaking homes and businesses. Toxic fumes were released, causing all 2,300 residents to evacuate. 400,000 gallons of crude oil spilled out of the tank cars.

Surely, crude-by-rail brings with it the potential for displacing people and housing ... something we are certain SLO County wishes to avoid. Yet, the REIR does not find the potential to be significant! This is a major error in interpreting impacts.

MRWG 72

e. The Impact On Available Water On The Nipomo Mesa: (4.10.4) The REIR states that *"the project would not remove any existing obstacles to growth, such as water availability in the Nipomo Mesa area."*

Given that The Rail Terminal Project will require the use of water to keep down dust during both the construction and operations phases, and that Phillips 66 has a history of seeking increased production at the Nipomo refinery (and succeeding in doing so), it is highly likely that the Rail Terminal project will cause a significant increase in the use of water ... either today or in the future.

And given that South County already suffers from low water levels, it is difficult to believe that the Rail Terminal will not affect "water availability." This is not addressed in the REIR.

MRWG 73

f. A "Cumulative Impact" That Ignores The Impact On Residents: (4.10.5) The authors of the cumulative impact section appear to deliberately close their eyes regarding the fact that thousands of residents already live adjacent to the proposed Rail Terminal Project. The section's main findings discuss such immaterial things as ...

- *"Project would result in a less than significant increase in population and housing demand."*

- *"Several residential development projects are currently proposed or have been approved and yet to be built-out and growth would be within anticipated levels for the South County."*

- *"No significant imbalance between jobs and housing is expected to occur."*

- *"Movement of the crude oil trains would not result in an increase in population and therefore would not contribute to cumulative population and housing impacts."*

Therefore, there is an obvious, blatant, almost willful disregard for the impact on the Nipomo Mesa's existing population.

MRWG 74

A-12. EMERGENCY RESPONSE SERVICES:
Underfunded, Undertrained, Under-equipped, Unprepared, Preempted (Section 4.11)

The REIR states ...

a. Fire Protection Services: (4.11.1.3) *The SMR is within a High Fire Hazard Zone. Cal Fire can request assistance from other departments. There are 5 Hazardous Materials Emergency Response teams between Paso Robles and Santa Barbara. The one in Santa Barbara is a Level 1 certified team (highest level). The others are non-certified.*

b. Emergency Response: (4.11.2.2) *Many state agencies bear responsibilities* (for emergency response). *They are beginning to prepare for the heightened risks posed by oil by rail. Senate Bill 861 Oil Spill Prevention and Response provides funding for preparedness, spill response ... the law also imposes a tax on each barrel of crude to cover the cost of expanded spill response programs.*

(UPDATE: As of 10/8/14, Union Pacific, BNSF and the Association of American Railroads sued California over its proposed law SB 861 requiring them to come up with an oil spill prevention and response plan. They contend that federal laws are safe enough and that the laws prohibit California from imposing safety rules on trains carrying crude oil. Therefore, the REIR's statement about proposed improvements in "preparedness" and "response" is worthless -- since the railroads themselves are opposing this very measure.)

c. Fire Protection and Emergency Response at SMR: (4.11-23) *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.* MRWG 75

d. Fire Protection and Emergency Response Along the UPRR Rail Routes: (4.11-23) *The California Public Utilities Commission (CPUC) has identified a number of Local Safety Hazard Sites (LSHS) within California, including the Cuesta Grade. Over the past 5 years there have been 58 derailments at or near LSHS sites. The Cuesta Grade represents an area where a runaway train could occur.*

OES (Office of Emergency Services) analysis revealed that numerous local emergency response offices lack adequate resources to respond to oil by rail accidents. Rural areas have little or no funding for firefighters and rely on volunteer firefighters. They lack the capacity to support a HAZMAT team and lack capacity to purchase or maintain necessary specialized vehicles and equipment, or to obtain training. Their response time could be hours.

Emergency responders lack adequate training in the specialized areas of oil rail safety and flammable liquid, lack critical information needed to help plan for and respond to oil by rail incidents, and how they would respond to potential worst-case scenarios.

e. Residual Impact: *Oil spill impacts to fire protection and emergency response services along the UPRR mainline tracks would be significant and unavoidable (Class 1).*

f. Preemption: *The County may be preempted by federal law from implementing* (mitigation) *measures because they might improperly impact interstate commerce or the Interstate Commerce Commission Termination Act (ICCTA) which preempts state laws.*

(continued)

Underfunded, Undertrained, Under-equipped, Unprepared, Preempted, cont.

g. Cumulative Analysis: *The Rail Spur Project combined with the proposed expansion of the Arroyo Grande Oil Field and the proposed Phillips 66 crude oil pipeline would increase the demand for specialized rescue services.*

The Nipomo Mesa has thousands of homes in the initial response area of the Mesa fire Station 22. Specialized rapid and adequately staffed response is crucial. It is necessary to provide additional prevention and operational staffing to aggressively plan and train for effective mitigation of incidents.

As discussed in impact PS.4, an analysis by OES clearly indicates that fire and emergency responders lack resources, training and information in order to adequately respond to a crude oil train incident.

OUR CONCLUSIONS: The Rail Terminal Project brings a full spectrum of never-before-seen dangers to all of SLO County ... including the very real potential for toxic fires, smoke, explosions and oil spills.

However, the nearest certified Hazard Materials Emergency Response Team is in Santa Barbara (a minimum of one hour to one-and-a-half hours away from the SLO County border). Their first responsibility is to Santa Barbara County, and they are likely to also be utilized on a variety of non-hazmat calls. All of this would very likely limit their immediate availability to respond to a major incident in SLO County.

The REIR clearly states that local emergency services are currently underfunded, undertrained, under-equipped and unprepared to deal with these dangers. Certainly, if the emergency services were built completely differently, and if they correctly implemented every single suggested mitigation measure (forever), then possibly those dangers could be eliminated. But reality tells us there is no practical way to make that happen. MRWG 75 cont

In April, 2014 the National Transportation Safety Board ran a meeting entitled a "Forum on Ethanol and Crude Oil Transportation."* The fire chiefs and emergency managers who spoke, clearly indicated that derailments of long crude oil trains are *"way beyond our capabilities"* to handle.

Of course, then there's the federal preemption issue, which makes the implementation of all proper mitigation measures impossible.

Additionally, all of these measures are in response to disasters, not methods to prevent such occurrences. It's almost as if the REIR assumes we must accept these calamities as a "new normal", and try to deal with them the best we can. Our opinion is that we simply need to say "no" to Phillips ... that we will not allow this kind of new normal to take hold in SLO County.

Of course, there's also the issue of who would pay for the huge spectrum of mitigation measures necessary to handle the catastrophes. SLO County Supervisor Caren Ray remarked on the Phillips proposal (10/10/14) -- *"We have emergency preparation we have to deal with including funding for decision making that we don't make here in the County. We have to make sure that our local tax payers don't get stuck with the bill for the rail."*

The REIR is inadequate in that it does not draw overall conclusions from all of the individual points it makes about emergency preparedness. It must truthfully describe the cumulative impact of all the above.

http://m.startribune.com/business/282785701.html
*http://www.ntsb.gov/news/events/2014/railsafetyforum/

A-13. TRANSPORTATION AND CIRCULATION; VERTICAL COASTAL ACCESS (Section 4.12): Misclassifications, Miscalculations And Misinterpretation Of Impacts In The REIR

a. Misclassification Of Willow Road During Refinery Operations: The REIR (4.12-2) identifies Willow Road as an Arterial Roadway with a 16,000 daily vehicle capacity (DVC). However, we believe Willow Road should be considered a Collector Road (9,400 DVC) because:

- The roadway's design is consistent with Pomeroy Rd. (a Collector Road).
- A four-way stop sign at intersection of Pomeroy and Willow is consistent with two collector roads.
- There's a short roadway line-of sight (due to rolling hills) on Willow Road, in the immediate vicinity of large residential entrances.
- There's recent history of user complaints regarding the speed limit on Willow being set too high.

MRWG 76

b. Misclassification Of Willow Road During Construction: The REIR (4.12-23) evaluates construction traffic on Willow Road according to Arterial Roadway conditions. However, as pointed out above, Willow Road has Collector Roadway conditions (9,400 versus 16,000 DVC). This criteria creates a Class-II impact to roadways during construction.

MRWG 77

c. Miscalculation Of "On-Time" Train Performance: The REIR (4.12-10) identifies passenger train on-time-performance according to actual departure times versus actual arrival times. Performance metrics should also include the impact of passenger trains departing later than scheduled due to rail congestion, including freight train congestion.

The REIR claims passenger train on-time performance is 80% between April 2011 and March 2014. By including delays to scheduled departures, OTP would drop well below 80% if delays to departures are included in the metric.

The REIR (4.12-10) claims freight trains contribute to only 2% of passenger train delays along the coastal route. That figure will be much higher if departure delays are included in the metric.

The REIR (4.12-11) points out that the Federal Railroad Administration has established a target goal of 80% performance for the coastal passenger trains. Therefore, performance is already below acceptable limits. Additional freight train traffic will further reduce performance. This creates a class-2 impact, with the improvements to the coastal rail system required to mitigate.

MRWG 78

d. Antiquated Methods Of Operation: The REIR (4.12-10) points out that much of the coastal rail route has hand-operated switches that require train crews to operate tracks before and after trains enter sidings. This antiquated system should be corrected on the entire coastal route before creating a new destination for crude-by-rail.

MRWG 79

(continued)

Transportation And Circulation, cont.

e. Miscalculation Of The Number Of Train Round Trips: The REIR (4.12-25) presumes that peak train travel associated with the Rail Spur would be one round trip per day. However, the Rail Terminal will generate a peak of two round trips per day. For example ...

- At 8AM a fully loaded crude oil train would arrive. Locomotive A uncouples from the tankers.
- At 9AM that morning, locomotive A hooks up with 80 empty tankers from a previous load and leaves the SMR. That's one round trip.
- At 9PM that night, another train arrives. Locomotive B uncouples and leaves its full tankers onsite. Locomotive B hooks up to the empty tankers from the morning train and departs.

This example points out that peak rail travel is two round trips per day.

MRWG 80

f. Miscalculation Of Train Delays At Crossings: The REIR (4.12 -26) identifies delays on at-grade crossings. Trains in SLO county will be traveling between 10 and 30 MPH. Crossing delays will range between 2.2 and 6.5 minutes per train. The REIR claims this as a class-III impact. However, with an average of two round trips (not one as assumed) this becomes a class-II impact, with separated crossings being necessary throughout the system to mitigate.

MRWG 81

g. Additional Miscalculations Based On The Number Of Round Trips: The REIR (4.12 – pages 26 through 45), make various references to the impact of one-round trip train peak. However, as pointed out above, the Rail Terminal will generate a peak of two round-trip trains per day.

MRWG 82

f. Misinterpretation Of The Impacts Of Vertical Access To The Coast: The REIR (9.0) identifies three options for satisfying the county's requirement for vertical access to the coast. Phillips 66 has agreed to immediately provide public access to the beach if any projects are complete (they are currently on a ten-year window to complete the access as part of the Throughput project approval in 2013). The three options are:

- **Option 1:** Motor vehicle access – bridge over RR to allow vehicular access to the State Offroad Vehicle Park (dune buggy and camper access).
- **Option 2:** Bicycle and foot traffic access – pedestrian bridge over RR.
- **Option 3:** Docent-led access to the dunes.

However, option 1 creates multiple new, unacceptable problems. First of all, option 1 allows State Parks to close the Arroyo Grande Creek to vehicle crossings. This will force all or most camper and dune buggy traffic to use a new entrance at Phillips 66 (and use Willow Road off of Hwy-101).

MRWG 83

(continued)

Transportation And Circulation, cont.

f. Misinterpretation Of The Impacts Of Vertical Access To The Coast, cont.:

The result of new vertical access construction would include a paved road past the refinery, up to a 25,000 square foot parking lot. This would give vehicles capable of driving on the dunes access to the beach through Phillips 66. The impacts of this ...

- **Air Quality Impact:** The REIR claims there is no dust impact because vehicle trips shift from Oceano and Pismo beach entrances, to the refinery entrance. However, the impact is a major increase for the Nipomo Mesa ... whose air quality already violates government standards.

- **Emissions Impact:** Again, the REIR claims no impact from emissions because they are only shifted from another location, to the Nipomo Mesa. However, the impact is a major increase for the Nipomo Mesa ... whose air quality already violates government standards.

- **Condor Study:** The Condor Study estimated that a peak of 3,579 vehicles per day would use the new refinery access point. Introducing thousands of vehicles entering and exiting via this route will further exacerbate air quality that already violates government standards.

- **Willow Road - A Collector Road:** Significant impacts along the Willow Road route to Hwy 101 exist. As previously pointed out, Willow is more similar to a Collector Roadway than an Arterial Roadway (9,400 versus 16,000 ADT).

MRWG 83 cont

Therefore, the REIR must be rewritten. All of the misclassifications, miscalculations and misinterpretations must be corrected ... and new conclusions must be drawn about impacts.

A-14. ALTERNATIVES TO THE PHILLIPS RAIL TERMINAL PROJECT: The Only Alternative To Protect SLO County Is "No Project - No Rail Terminal" (Section 5.0)

a. No Project Alternative: (5.3.1) The Santa Maria Refinery would continue to receive crude oil from the existing pipeline network and via truck from the SMPS (Santa Maria Pump Station located in Santa Maria, Santa Barbara County).

- It is possible that crude oil shipments via truck to the SMPS could increase...by about 19,200 barrels per day without exceeding the permitted truck unloading limit specified in the Santa Barbara APCD permit.

- An increase in deliveries to the SMPS to the allowed limit would require an additional 2.5 trains per week to be delivered to a rail unloading terminal near Bakersfield and there would need to be additional truck unloading racks built at an alternate location to accommodate the number of additional trucks coming from Bakersfield.

- The REIR states that all potential impacts using this alternative would be lower due to less train traffic. There would be no additional impacts at the SMR. Impacts caused by a potential increase in deliveries by rail to Bakersfield and to Santa Maria.

- San Luis Obispo County may be preempted by Federal law from requiring mitigation on the UPRR mainline tracks, and may not be able to require the use of the safer tank car design. If the County is preempted from requiring mitigation of the impacts on the UPRR mainline track and locomotives (and safer rail cars) (a definite probability), then the No Project Alternative would be environmentally superior since it would eliminate a Class I air impact... and reduce the severity of five other Class I impacts. (Page 5-49, paragraph 3 of the REIR). MRWG 84

b. Loop Rail Unloading Configuration: This alternative would increase the severity of 20 impacts. The Rail Spur Project, which uses a linear track configuration, would be environmentally preferred to the loop track configuration alternative.

c. Reduced Rail Delivery Alternative: Only three trains per week would be delivered to the SMR instead of the proposed five per week. The reduced rail delivery alternative would off some very minor advantages over the Rail Spur Project. All of these slight reductions would result since fewer trains would be delivered to the SMR (Page 5-52, paragraph 2). Therefore, the Reduced Rail Delivery alternative would be environmentally preferred.

However -- we believe that if any crude-by-rail is allowed to take root in SLO County, it is only a matter of time until Phillips 66 will request an increase in the frequency of trains and the amount of crude oil delivered to the SMR. Therefore, reduced rail delivery is an unacceptable alternative.

A-15. MITIGATION MONITORING REQUIREMENT
SLO County - Shouldering The Vast Responsibility For Reporting & Monitoring An Enormous Range Of Mitigation Measures (Section 8.0)

The REIR (8.0) calls for San Luis Obispo County to be responsible for adopting a program for reporting and/or monitoring the implementation of mitigation measures -- during construction and ongoing operations. SLO County Planning and Building and/or the SLO APCD assume the responsibility for assuring compliance with the vast majority of the mitigation measures. This section of the report does not specify who pays for this immense responsibility and where the personnel will come from.

SLO County will have to report on and/or monitor the following ...

1) **Berm:** (AV-1) A natural appearing **earthen berm** to be constructed 10 to 20 feet high. Planting of native vegetation without invasive species will be planted.

2) **Lighting:** (AV-3) To be compliant with International Dark Sky Association best practices. Lighting for rail spur perimeter fencing to use motion sensors.

3) **Construction Emission Reduction:** (AQ-1) Fuel all off-road equipment with CARB certified diesel fuel or cleaner fuels. Use CARB Tier 3 certified diesel construction equipment. No idling for more that 5 minutes. Use electrified or diesel hybrids when possible. Equipment greater than 100-horse power to be equipped with CARB Level 3 diesel particulate filters to achieve an 85% reduction in particulate emissions. Emissions of reactive organic gases and oxides of nitrogen not to exceed quarterly SLOCAPCD thresholds.

4) **Dust Control:** (AQ-f) Use of water trucks or sprinkler systems so no dust leaves the site. An adequate water source must be identified. Use reclaimed water when available. Exposed and idle ground areas to be seeded with fast germinating non-invasive grasses (no species identified in the REIR). Disturbed areas not subject to re-vegetation to use jute netting, chemical soil binders or other SLOCAPCD approved methods to eliminate airborne dust. Wheel washers to be used when trucks leave the site and enter paved roads. Water sweepers using reclaimed water will wash the paved roads if visible soil material is observed. MRWG 85

5) **Asbestos/Hydrocarbon Contamination:** (AQ-1f to 1l) Test for asbestos and hydrocarbon contamination and mitigate.

6) **Fugitive And Locomotive ROG and NOx Emissions**: (AQ-2) Tier 4 locomotives to be used. Test and ensure that emissions do not exceed SLOCAPCD threshold limits. Locomotive idling limited to 15 minutes.

   SPECIAL NOTE: While the REIR suggests the use of Tier 4 locomotives, it does so as if this is a realistic alternative. In reality very, very few such locomotives exist. At the Nov. 5, 2014 Public Workshop the REIR's authors said that such an alternative was "technically feasible" -- meaning that the alternative is not ready for actual application ... it's a concept. Therefore, the next version of the EIR must state clearly, upfront in the Executive Summary and the body of the report, that such an alternative is only "technically feasible" and highly unlikely to be implemented. And, if such a locomotive became reality, its availability would very likely be extremely limited for many years.

7) **Odor Control.** (AQ-7) Use of carbon canisters on all vacuum trucks and monitor rail car top vents during unloading. Independent third party, retained by SLO County, will monitor all activity for the first 3 months of activity. If no problems, monitoring can be reduced.

(continued)

Mitigation Monitoring Requirement, cont.

8) **Nipomo Mesa Lupine**: (BIO-1) A survey will be conducted during a normal rainfall year to determine the existence of the lupine. If found, specified measures to be taken to establish and protect the lupine within an on-site mitigation area.

9) **Capture & Relocate Wildlife:** (BIO-3/4) Coast horned lizard, silvery legless lizard, badgers, and other sensitive wildlife species and plants. Capture and relocate.

10) **Restore And Enhance 53 Acres Of Dune Habitat**: (BIO-5) Remove invasive species. Restore known rare plant associations by planting specifically identified plant species and other natives. Grazing activity prohibited. Where disturbance of sensitive habitat is unavoidable, the top four inches of surface material shall be salvaged and used for restoration use.

11) **Prepare Oak Tree Inventory**: (BIO-6) Trees within 50 feet of construction shall be marked and root zone protected. Trees that are removed will be replaced on a 2:1 ratio.

12) **Spill Prevention, Control and Countermeasures**: (BIO-7) Protect sensitive vegetation and animals during cleanup operations. Contain and prevent spills from entering adjacent property. The oil spill containment system shall be 90,000 gallons to accommodate the worst-case pipeline oil spill. (Rail car capacity is approximately 30,000 gallons).

13) **Protection Of Bird Breeding And Nesting Activities** (BIO-8)

14) **Use Of Existing On-Site Soils Where Possible**: (BIO-9) If off-site soils, mulch, or straw bales are used they must be free of invasive species seed.

15) **Union Pacific RR Oil Spill Contingency Plan:** (BIO-11) Provide a copy to all first response agencies along the mainline rail routes in California.

16) **Emergency Vehicle Access (EVA) Road**: (CR-1a) Grading and construction shall avoid environmentally sensitive areas.

17) **Archaeological and Paleontological Monitoring Plan**: (CR-1b, 2a, 5, 6) A Native American monitor shall be included with those monitoring. A monitor shall be present during all ground disturbing construction activities. Preserve and protect significant finds.

18) **Earthquake & Liquefaction Mitigations:** (GR-1) Rail spur, unloading facility and oil pipeline infrastructure shall be constructed to withstand earthquakes and liquefaction.

19) **Storm Water Pollution Prevention Plan**: (GR-2) Preserve existing vegetation, use geotextiles and mats, drainage swales, etc. Reduce tracking sediment offsite by using tire washers, steel shakers at exits. Contaminated soil due to oil spill shall be dug up and discarded appropriately.

20) **Utilizing The Safest/Most Secure Rail Routes:** The rail route with the lowest level of safety and security risk shall be used. Only routes with Positive Train Control (PTC) could be used.

21) **Specified Construction Hours:** (N-1) Hours limited to 7 AM to 9 PM M-F, and 8 AM to 5 PM on weekends.

MRWG 85 cont

(continued)

Mitigation Monitoring Requirement, cont.

22) **Use Of State-Of-The-Art Tank Cars (Specifics Still Being Debated):** (HM-2) Only rail cars designed to FRA, July 23, 2014 Proposed Rulemaking Option 1: PHMSA and FRA Designed Tank Car listed in Table 4.7.8 shall be allowed to unload crude oil.

On July 23, 2014, the U.S. Department of Transportation (DOT), issued a Notice for Proposed Rulemaking (NPRM) proposing new tank car standards.

PHMSA is seeking comments related to a newly proposed DOT 117 tank car that would need to reflect one of three possible options:

- Option 1 – PHMSA/FRA Designed Tank Car
- Option 2 – AAR 2014 Tank Car
- Option 3 – Enhanced CPC 1232 Tank Car

The three options are summarized on the following page:

MRWG 85 cont

NEW CONSTRUCTION – POST 10/1/2015

FEATURE	OPTION		
	1	2	3
Wall Thickness	9/16	9/16	7/16
Steel = AAR TC-128 Grade B Normalized	√	√	√
Head Shield = Full Head Shield, 1/2 inch	√	√	√
Thermal Protection[1]	√	√	√
Reclosing Pressure Relief Device	√	√	√
Jacket[2]	√	√	√
Bottom Outlet Handle[3]	√	√	√
Top Fittings Protection	TIH 9 mph rollover	AAR App E. 10.2.1	AAR. App E. 10.2.1
Braking[4]	ECP Brakes	DP or EOT	DP or EOT
286k GRL Authorized	√	√	√

√ Required under the Proposed Rules.
[1] In accordance with 49 CFR §179.18.
[2] Minimum 11-gauge jacket constructed from A1011 steel and weathertight.
[3] Bottom outlet handle removed or designed to prevent unintended actuation during train accident.
[4] ECP is Electronically Controlled Pneumatic Brakes; DP is Distributed Power; and EOT is End of Train Device.

(continued)

Mitigation Monitoring Requirement, cont.

23) **Noise Reduction:** (N-2) Locomotive operating between 10 PM and 7 AM shall be limited to a combined total of 100 locomotive minutes, including switching and idling. No horns allowed except in an emergency.

Unloading pumps and associated electric motors can achieve a noise level no greater than 71 dBA at 50 feet.

24) **Noise Monitoring Plan:** Must be implemented that includes establishing noise-monitoring stations. Excess noise must be mitigated. Mitigation could include reducing hours of operation.

25) **Solid Waste Management:** (PS-1) Divert at least 50% of construction waste from landfills. Identify waste material, quantities, and whether each is to be recycled, reused, or salvaged. Identify where waste will be sorted. Identify alternate disposal sites. Monitor and record quantities and disposal sites.

26) **Provide a Fire Protection Plan to Cal Fire/County Fire:** (PS-3, 4) Update the Emergency Response Plan and Spill Prevention Control and Countermeasure Plan. Assure that the SMR fire brigade meets OSHA requirements. Reimburse Cal Fire / County Fire for all expenses relating to annual fire inspections and offsite training for emergency responders to railcar emergencies.

SMR / UPRR contract must provide annual funding for first response agency training for all agencies along the routes used to carry crude oil to the SMR. MRWG 85 cont

27) **Update Existing Security Plan** (PS-5)

28) **Construction Traffic Management Plan:** (TR-1) Limit traffic during peak AM and PM traffic hours. Willow Road will be used for truck deliveries. SMR to correct adverse road conditions caused by construction traffic.

29) **SMR Trains To Avoid Passenger Trains:** (TR-4) Unit trains serving the SMR will not interfere with passenger trains traveling the Coast Rail Route.

30) **Oil Spill Plan:** (WR-4) Oil spills shall be contained and cleaned according to state standards. Containment dikes drain pans, drop cloths, and absorbent materials to be used. Regular leak inspections of vehicles and equipment. A spill response trailer, equipment, and personnel training shall be part of the Spill Prevention Control and Countermeasure Plan.

It must be stated in the REIR that:

- The astounding, cumulative number of mitigation measures are clear evidence of the dramatic change in the way Phillips 66 wishes to conduct business.
- It is unlikely that SLO County could realistically implement and/or monitor all of these measures.
- The financial burden on SLO County to implement/monitor the many, many mitigation measures is unrealistic.

A-16. AN INADEQUATE EXECUTIVE SUMMARY

At the Public Workshop held on November 5, 2014, multiple instances were pointed out where the Executive Summary does a far less than adequate job of pointing out the incredible scope of dangers described in the REIR.

Truly, readers must read the full content in this 889-page document to get the "ah hah!" moments that actually exist. This is true in content that discusses air pollution, the types of locomotives that are feasible, the types of rail cars that are feasible, and elsewhere.

The reader of the Executive Summary is left to think that many issues are either non-issues or that they can be mitigated easily. However, a deeper reading of the REIR reveals far more information and greater hazards and dangers ... including the understanding that certain suggested mitigation measures simply are concepts unlikely to be implemented.

MRWG 86

At the above meeting, we were told by the report's authors that CEQA "suggests" that the Executive Summary be about 15 pages long. And therefore, many of the explanations and actual impacts cannot be communicated in the Executive Summary. Using a 15-page limit for an 889-page, highly technical document is misleading to the public and officials.

The problem -- the reality is that Planning Commissioners and Supervisors are highly unlikely to read the full 889-page document! Many will read the Executive Summary only, thinking that they are getting the "full story." This is of course extremely dangerous, as they will make decisions without truly understanding many of the critical impacts.

Therefore, we strongly insist that the Executive Summary be rewritten. Length should not be the driving factor. True understanding of the dangers, including where mitigation measures may be unrealistic, should drive the Executive Summary.

A-17. A POTENTIALLY ILLEGAL, "PIECEMEALED" PROJECT WHICH THE REIR FAILS TO ADDRESS

The Phillips Santa Maria Refinery (SMR) and the Phillips 66 San Francisco Refinery, located in Rodeo California, are inextricably connected. They are, in fact, literally connected by a 200-mile pipeline and there is a direct production link between the two facilities.

This is confirmed on the Phillips 66 website which states:

"The San Francisco Refinery is comprised of two facilities linked by a 200-mile pipeline. The Santa Maria facility is located in Arroyo Grande, Calif., while the Rodeo facility is in the San Francisco Bay Area."

Yet neither the RDEIR for the Rodeo Phillips 66 Propane Recovery Project (whose comment period closes on December 5, 2014) nor the REIR for SMR addresses the other in any reasonable manner.
The fact that the Rodeo facility is not even mentioned under section "3.2 Cumulative Projects List" in the REIR, makes us even more suspicious that Phillips may be engaging in what is known as "piecemealing".

The California Environmental Quality Act (CEQA) forbids "piecemeal" review of the significant environmental impacts of a project (see Banning Ranch Conservancy v. City of Newport Beach, 211 Cal.App.4th 1209, December 12, 2012). In this case, the two projects should be considered as a single, unified, interconnected project. And, in doing so, it may be shown that the cumulative impact of both projects is far more environmentally calamitous than each one considered in isolation.

MRWG 87

This was stated in different words by a citizen writing in the SLO Tribune (11/15/14) in response to the Phillips 66 proposal ...

> *"I am a resident of Crockett, CA, a town next to the Rodeo Phillips 66 Refinery. The Rodeo refinery is the recipient of the semi-processed crude piped from the Mesa refinery. They have a proposed 'Propane Recovery Project' and EIR here that doesn't mention your project, as your's doesn't mention ours.*
>
> *"They are, however, inexorably linked. By not disclosing the impacts your project has on us (with it's higher quantity of dirty crude), Phillips 66 is violating the intent of the EIR process in both instances, and breaking the law. It is called 'piece-mealing' in the trade. The true nature of these projects needs to be revealed and either fully mitigated or stopped. Please see http://www.crgna.org"*

2014 NOV 24 AM 10: 32
SLO COUNTY PLANNING/BUILDING DEPT

Gmail

Mr. Wilson - Official Responses From The Mesa Refinery Watch Group- VERSION #2

Gary McKible <gary@mckible.com> Sun, Nov 23, 2014 at 2:15 PM
To: "p66-railspur-comments@co.slo.ca.us" <p66-railspur-comments@co.slo.ca.us>, Murry Wilson <mwilson@co.slo.ca.us>
Bcc: Martin Akel <akelassoc@earthlink.net>, Ethan Buckner <ethan@forestethics.org>, roger@cbecal.org, Valerie Love <vlove@biologicaldiversity.org>, Ross Hammond <ross@forestethics.org>, John Anderson <johnanderson33@hotmail.com>, Kevin Beauchamp <Kevin.Beauchamp@kw.com>, Lee & Julie Edmonson <edmonson60@gmail.com>, Art Herbon <afherbon@gmail.com>, Dorothy Modafferi <tdmod@me.com>, Paul Stolpman <stolpman@hotmail.com>, Michael Nelson <miken0105@gmail.com>, Linda Reynolds <lreynolds151@gmail.com>, Tom Ryan <whitneyhiker888@yahoo.com>, Sam Saltoun <ssaltoun@verizon.net>, Laurence & Arlene Shinderman <lshinderman@sbcglobal.net>, Yvonne Willams <Williams.yvonne.e@verizon.net>

Dear Mr. Wilson:

As you know, the Mesa Refinery Watch Group represents more than 500 SLO County citizens.

On November 20, 2014, we emailed our "Official Response From The Mesa Refinery Watch Group" to your office and you have acknowledged the receipt of same. We have also hand-delivered our Response document to your office.

The attached PDF contains our official responses to the Phillips 66 Rail Spur REIR that was issued in October, 2014, ***with a revision to page 70, only.***

I will hand-deliver the revised page 70 to your office on Monday, November 24, 2014.

KINDLY REPLY TO THIS EMAIL ACKNOWLEDGING RECEIPT OF OUR *REVISED* DOCUMENT.

Respectfully,
For The Mesa Refinery Watch Group
Gary McKible

- Linda Reynolds (Chairperson): lreynolds151@gmail.com
- Martin Akel: akelassoc@earthlink.net
- John Anderson: johnanderson33@hotmail.com
- Kevin Beauchamp: Kevin.Beauchamp@kw.co
- Lee Edmonson: edmondson60@gmail.com
- Gary McKible: gary@mckible.com
- Mike Nelson: miken0105@gmail.com
- Tom Ryan: whitneyhiker888@yahoo.com
- Sam Saltoun: ssaltoun@verizon.net
- Laurance Shinderman: lshinderman@sbcglobal.net

SLO CNTY
PLANNING/BUILDING
DEPT
2014 NOV 24 AM 10: 47

Response Submitted To Murry Wilson v2.pdf
1216K

MRWG-01	The County made a decision to recirculate the entire DEIR as allowed under CEQA. With a fully recirculated RDEIR it did not make sense to mark all the pages as is done for a Final EIR since this was a completely updated draft EIR. The County determined that a 45-day comment period was adequate for the RDEIR. The public review period for a draft EIR shall not be less than 30 days nor should it be longer than 60 days except under unusual circumstances. When a draft EIR is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 45 days, unless a shorter period, not less than 30 days, is approved by the State Clearinghouse (CEQA Guidelines Section 15105(a)).
MRWG-02	The RDEIR addressed the impacts of construction of the Rail Spur Project. Impact AQ.1 (see Section 4.3, Air Quality and Greenhouse Gases) discusses the air emissions associated with construction of the rail spur. Mitigation measures AQ-1a through AQ-1i provide detail measures to reduce the air emissions associated with construction. Appendix B of the RDEIR (Air Emission Calculations) includes the offsite vehicle emissions associated with construction. The traffic impacts of construction are discussed in Impact TR.1 (see Section 4.12, Traffic and Circulation). 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 (PCE) 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. State Route 1 and Willow Road near the SMR have a capacity of between 12,000 – 16,000 daily vehicles. Per Table 4.12-3 in the RDEIR, less than 50 percent of the capacity of both roads is currently utilized. The addition of 1,369 trips would not result in an unacceptable LOS given the excess capacity along these roads. Therefore, congestion would not be a significant impact. The addition of peak hour construction trips would temporarily worsen traffic operations at the Willow Road/State Route 1 intersection. The westbound left turn movement (to southbound State Route 1) currently experiences high delay during the PM peak hour. Mitigation measure TR-1 in the RDEIR would reduce the level of traffic impacts to the Willow Road/State Route 1 intersection and to Willow Road to less than significant levels. Impact N.1 (see Section 4.9, Noise and Vibration) discusses the noise impacts associated with construction. 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.

	Mitigation measure N-1 limits construction hours to these periods so impacts would be considered less than significant. As shown in Table 4.12-3 of the RDEIR the average annual daily traffic along Willow Road is between 3,817 and 4,304. The addition of the project's construction traffic which would not be expected to increase the California Noise Equivalent Levels (CNELs) along Willow Road. Willow Road is designed to service motor vehicle and truck traffic, and the current truck traffic from the SMR uses Willow Road. The increase traffic from the construction activities for the Rail Spur Project would not result in visual impacts since the vehicles would be similar to the types of vehicles currently using the road.
MRWG-03	As shown in Appendix A of the RDEIR each of the 80 tank cars and two buffer cars would be 60 feet long, and the three locomotives would be 90 feet long. This would make the total train length 5,190 feet (82*60+90*3=5,190), not 1.5 miles as stated in the comment. The text in the Project Description (Chapter 2.0) has been modified to make the text clear with regard to the length of a unit train.
MRWG-04	See Response to MRWR-03. The track drawing in Appendix A of the RDEIR shows the lengths of each of the tracks. Figure 2-4 of the FEIR has been modified to provide the length of each of the tracks.
MRWG-05	The main purpose of the "bad order track" is to hold tank cars that have crude oil that does not meet the require specifications. With regard to rail car and locomotive repairs, the SMR facilities do not have the equipment or operations to conduct major repairs to rail cars and locomotives. If a rail care or locomotive broke down and needed repair UPRR would have to move them to one of its rail yard facilities. Mitigation has been added to the FEIR to ensure that any minor car or locomotive repairs occur only during daylight hours, when background noise levels are higher and noise from rail spur activities has less of an impact. Note also that UPRR may do minor car and locomotive repairs along the existing siding near the SMR for any trains currently being transported by UPRR, so a degree of repairs are already a part of the baseline noise environment.
MRWG-06 and MRWG-07	The RDEIR Aesthetics section considers all public viewpoints surrounding the project, and specifically addresses viewpoints associated with the developments and recreation east of Highway 1. The project location was directly viewed and analyzed from each of these potential viewpoints. The analysis, potential impacts and mitigation measures identified in the RDEIR Aesthetic section include and specifically address views from the residential and recreational developments east of Highway 1. Key Viewing Areas (KVAs) along Highway 1 provide a fair representation of how the majority of the public will experience the project. Highway 1 has the

	greatest traffic volume, is the closest public roadway and is a primary regional and local transportation route. KVAs along Highway 1 were positioned at major entrances to the Trilogy and other east side development to further increase their representative value. KVA-2, at the intersection of Highway 1 and Via Concha is at an elevation of approximately 200 feet above sea level. The closest residential street (and golf course) east of the project is at an elevation of approximately 235 feet above sea level. Potential viewpoints along Louise Lane and Eucalyptus Road rise to approximately 250 feet above sea level. Although the 35 to 50-foot viewpoint elevation difference between Highway 1 and the viewpoints to the east is not substantial when applied to the 0.5 to 1.5 mile viewing distance, field analysis showed that some public viewpoints would have slightly increased visual exposure to the project compared to views from Highway 1. This increased visual exposure would mostly occur through the 600-foot gap in the existing approximately one-mile long windrow of mature eucalyptus trees paralleling the east side of Highway 1. The RDEIR analyzed views from these elevated viewpoints, and includes mitigation measures which would minimize visual impacts from these areas. In addition, field review showed that this somewhat increased exposure also includes greater visibility of the existing Santa Maria Refinery, coke processing facility, railroad tracks and other development. As seen from these elevated locations the project would not block views of the Pacific Ocean, coastline, dunes, riparian corridors, or agricultural field patterns. Direct observation showed that from the vast majority of potential public viewpoints within the developed and recreation areas east of Highway 1, views of the project would be substantially or completely blocked by some combination of intervening vegetation, landform, distance or existing residential and recreational development.
MRWG-08	The RDEIR identifies and acknowledges potential impacts to the scenic vista and requires mitigation measures such as the screening berm which would reduce those impacts to a less than significant level. The RDEIR also notes that the project would not block views of the Pacific Ocean, sweeping coastline, dunes, riparian corridors, or agricultural field patterns.
MRWG-09	The RDEIR describes an unloading of up to five trains per week, with a maximum of 250 allowed per year. With this average of less than one unloading operation per day, noticeably new activity would be minimal. In addition, because of viewing distance, existing topography, intervening vegetation, and the required screening berm, ground plane activity would not be easily noticed from the majority of public viewpoints. The same conditions which preclude visibility of much of the existing oil processing facility activity would also preclude much of the visibility of the proposed unloading facility and rail spur tracks.

MRWG-10	The project proposes to the construct the unloading facility and rail spur tracks adjacent to the southern slopes of a natural landform ridge. This adjacent landform rises to elevations ranging from approximately 120 to 145 feet above sea level. The proposed rail spur tracks are proposed at an elevation of approximately 94 feet above sea level, which would be as much as 55 feet lower than the landform to the north. As a result, views of the unloading facility and railroad spur from the north and the northeast would be substantially blocked. In addition, the eastern segment of the rail spur tracks, closest to Highway 1, are proposed to be constructed in an excavated area maintaining the approximately 94-foot elevation while the adjacent ground rises up eastward, resulting in the easternmost end of the tracks being approximately 20 feet below the surrounding natural terrain. This elevation difference, along with the required 10 to 20-foot tall mitigation berm, would combine for an approximately 30 to 40-foot tall earthen visual screen around the eastern end of the railroad spur. This berm height in combination with the natural ridge to the north will be sufficient to reduce visibility of the project to a less than significant level for viewpoints from the east, including elevated viewpoints in the Trilogy development and other public viewpoints.
MRWG-11	The RDEIR has been revised to identify lighting associated with the unloading facility as follows: "The unloading area would have 70 floodlights placed or mounted under the canopy. Forty of these lights would be directed toward the railcars and placed 60 feet apart, with 8,238 Lumens each. Thirty of these canopy lights would be directed to the walkway area and would be placed 20 feet apart, with 5,856 Lumens each. Two additional lights on 20-foot poles would be focused on the Meter area and Drain Tanks. 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".
MRWG-12 and MRWG-13	The RDEIR acknowledges visibility of new night lights from the surrounding areas and identifies substantial mitigation measures to minimize any potentially adverse effects. At the unloading facility all lights would be mounted under the proposed canopy. Forty of these canopy lights would be placed 60-feet apart, and 30 of them would be 20-feet apart. Lighting for the rail spur would only be for perimeter fencing security purposes and would be placed on 15-foot tall poles, 500 feet apart. The project proposes to the construct the unloading facility and rail spur tracks adjacent to the southern slopes of a natural landform ridge. This adjacent landform rises to elevations ranging from approximately 120 to 145 feet above sea level. The proposed rail spur tracks are proposed at an elevation of approximately 94 feet above sea level, which would be as much as 55 feet lower than the landform to the north. As a result, views of the unloading facility and railroad spur from the north and the northeast would be substantially blocked. In addition, the eastern segment of the rail spur tracks,

	closest to Highway 1, are proposed to be constructed in an excavated area maintaining the approximately 94-foot elevation while the adjacent ground rises up eastward, resulting in the easternmost end of the tracks being approximately 20 feet below the surrounding natural terrain. This elevation difference, along with the required 10 to 20-foot tall mitigation berm, would combine for an approximately 30 to 40-foot tall earthen visual screen around the eastern end of the railroad spur. This berm height in combination with the natural ridge to the north will help reduce visibility of night lighting for viewpoints from the east, including elevated viewpoints in the Trilogy development and other public viewpoints. The lighting associated with the unloading facility would be viewed at a distance of approximately 1.5 miles or more from viewpoints east of Highway 1, and would be seen in the context of the Santa Maria Refinery immediately to the north. In addition the unloading facility proposes a covered canopy over the majority of the area, which would decrease light-trespass. Similar to the lack of visibility of the existing oil refinery's illuminated ground-plane, intervening topography would block views of the illuminated ground-plane of the unloading facility as seen from Highway 1 and the residential areas to the east. Although the unloading facility lights would introduce light into a new area, with applied mitigation measures they would not appear out of place given the relatively close proximity to the existing refinery and coke processing facility, which emits high levels of industrial lighting throughout the night, every night of the year. In addition to the applicant-proposed lighting features such as downward-directed lights with fully shielded lenses, the RDEIR requires substantial mitigation measures that will minimize lighting impacts. Mitigation measures include that the lighting plan 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), using guidance and best practices endorsed by the International Dark Sky Association. Mitigation measures preclude illumination of adjacent slopes, prohibit placement of perimeter lights (which as previously described would be 15-feet tall) east of the screening berm (which as previously described would be 10 to 20- feet tall), and require the use of motion detectors rather than being continuously on. Importantly, following project completion the RDEIR requires the preparation of a Lighting Evaluation Report for review and approval by the County Department of Planning and Building prepared by a qualified lighting engineer not involved in the design of the original lighting plan. The Lighting Evaluation Report will conduct a comprehensive evaluation of in-place lighting, under all expected circumstances, and will require correction of any unexpected or residual lighting impacts based on direct observation of the completed project. The air quality mitigation that would limit rail car unloading

	from between 7 A.M. and 7 P.M. would also serve to reduce the nighttime lighting impacts to less than significant.
MRWG-14	Applicable zoning and land use standards associated with the Project Site, and the Rail Spur Project's potential consistency with applicable standards and policies and neighboring residential and agricultural areas, are addressed in Section 4.8 (Land Use and Recreation) and Appendix G of the RDEIR. As discussed in those sections, the proposed use is generally consistent with the Industrial zoning designation and existing operations at SMR. A significant and unavoidable impacts on adjacent residential uses was identified as a result of the increased health risk that would occur as a result of the Project. The new outdoor lighting proposed as part of the Project is discussed in Section 4.1, Aesthetics and Visual Resources, of the RDEIR and mitigation is identified to reduce noticeable light. While the RDEIR discusses potential inconsistencies with applicable planning documents, the decision of whether a proposed project is consistent with a particular plan or policy must ultimately be made by the local decision-making body. The comment has been included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.
MRWG-15	CEQA does not require an evaluation of economic or social impacts, and states that "economic or social effects of a project shall not be treated as significant effects on the environment" unless those effects result in physical changes to the environment (CEQA Guidelines Section 15131). Although a spill or fire-related incident could cause damage to the economy and reputation of agricultural businesses along the mainline, these effects would not constitute or cause a physical change in the environment above those already described and discussed in the RDEIR. Therefore, no additional economic analysis is necessary.
MRWG-16	The original EIR addressed only emissions within SLO County. The revised EIR broke this Class I impact into two parts, emissions within SLO County (both onsite and offsite) and emissions along the mainline outside of SLO County to Roseville or Colton. The criteria for impacts related to health risk were also revised based on the fact that the state agency, OEHHA, is revising their criteria for health risks and this impact was also divided into SMR site and mainline. The GHG scope was revised to address GHG emissions along the entire route as well (to Roseville or Colton), thereby increasing GHG emissions. In combination with the preemption issue, these changes produced additional Class I impacts. Note also that some revisions to rail car handling onsite also changed the onsite emissions levels somewhat. Note that the emissions and modeling related to health risks did not change for the revised EIR, only the criteria for determining cancer impacts were revised based on revisions that were being finalized by OEHHA (although the most recent OEHHA model was used for the Final EIR. The HARP2 model was

	released by OEHHA after the RDEIR was released). Chronic and acute impacts did not change, but were updated in the FEIR based upon the new HARP2 model. See Appendix B.2.GHG emissions within SLO County are the same as the original draft, but GHG emissions along the mainline outside of SLOC have been included. Mitigation measures are, by definition, technically feasible, such as the use of Tier 4 locomotives, which are being made within the U.S. however, the ability to require these mitigation measures is uncertain due to the potential for preemption. The mitigation measure to limit idling is feasible, from both a technical and a monitoring basis. UPRR has voluntary agreements with CARB to limit diesel idling in rail yards. Locomotive are equipped with the ability to monitoring idling. inspections by County staff would ensure that idling limits are complied with. The use of SLOCAPCD thresholds is supported by the SLOCAPCD in their review of the EIRs for this project. As determined by APCD studies, violations of area PM levels are due to the sand particulates from the recreation area and not from SMR operations. Health effects of diesel exhaust are quantified in the EIR using the models and methods defined by CARB, OEHHA and the SLOCAPCD.
MRWG-17	The potential increase in BTEX has been addressed in the EIR. See Impacts AQ.2 and AQ.4 in Section 4.3, Air Quality and Greenhouse Gas Emissions. However, during the Enbridge Spill that occurred in Michigan in 2010 involving tar sands crude (dilbit), 1,086 air samples of benzene levels, for example, were measured and 21 of the samples showed air concentrations above the EPA action levels (http://www.epa.gov/enbridgespill/data/dataair.html) of 6 ppb, indicating that some volatiles were present in the spilled materials although not very much. Sampling conducted by the Michigan Department Of Natural Resources And Environment Environmental Laboratory on the crude oil in the Enbridge pipeline (which was dilbit from Canada, same as would be expected for the proposed project) indicated that benzene could be as high as 1,100 ppm in the crude, Xylene as high as 1,200 ppm and Toluene as high as 1,900 ppm (measured as mg/kg) (http://www.epa.gov/enbridgespill/data/index.html#aqdata). The results indicated a BTEX concentration of about 0.50%, or, as per Table 4.3.13 in the RDEIR, within or below the range of crude oils currently processed by the SMR. The Keystone Pipeline FEIS (2013) also examined a wide range of crude oils and demonstrated that the " BTEX content of the dilbits [from Canada] is much lower than that of many lighter crude oils". The EIR analyzed a BTEX concentration of 1.25% to be conservative which indicated nominal increases in

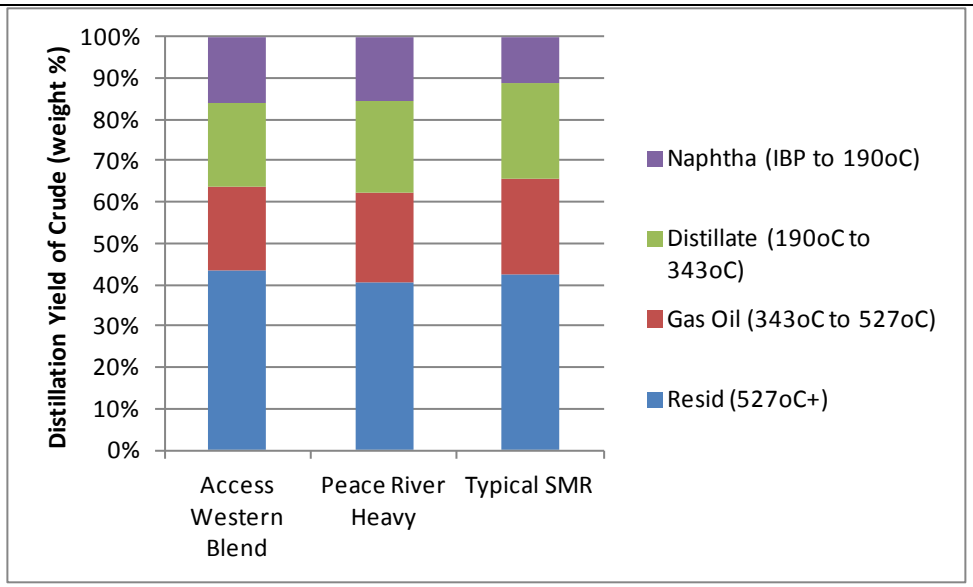
	health risk. BTEX levels of the proposed project crude do not present a "far greater" amount of BTEX from fugitive components. In addition, fugitive emissions from components are estimated based on industry-wide average emission rates developed by the EPA and include a wide range of crude oil types, volatilities, BTEX fractions and compositions. The EIR demonstrated that changes to health risk due to a potential increase in BTEX to 1.25% are nominal and do not require further analysis. The increased levels of nickel, vanadium, lead and copper do not affect air emissions as none of the crude oil is combusted and none of the metals are carried over in the fuel gas. The metals would remain in the coke. Sulfur production would increase producing potentially more sulfur trucks trips, as discussed in Section 4.3.4.2 (see Section 4.3 Air Quality and Greenhouse Gases).
MRWG-18	The increased sulfur in the crude oil would cause an increase in sulfur production at the SMR, which would lead to increase transportation of sulfur via truck on area roadways producing some additional truck emissions. This additional sulfur would not carry over into SO_2 emissions from the sulfur removal and tail gas unit and would not contribute to higher sulfur dioxide emissions.
MRWG-19	Table 4.3.13 in the EIR lists the anticipated vacuum resid levels and those historically at the SMR, indicating that the crude oil associated with the project would not increase the coke production over the current slate of crude oils. A study performed by the SLOCAPCD, the South County Phase 2 Particulate Study, evaluated whether impacts from off-road vehicle activities at the Oceano Dunes State Vehicle Recreational Area (ODSVRA), the Phillips Refinery coke piles, and adjacent agricultural fields were contributing to the particulate problems on the Nipomo Mesa (SLOC APCD 2010). The Phase 2 portion of the study concluded that off-road vehicle activity in the ODSVRA is a major contributing factor to the PM concentrations observed on the Nipomo Mesa and that neither the petroleum coke piles at the Phillips facility nor agricultural fields or activities in and around the area are a significant source of ambient PM on the Nipomo Mesa. The composition of the particulates is predominately natural crustal particles.
MRWG-20	Coke storage piles are limited in area in accordance with the SLOCAPCD Coke and Sulfur Storage and Handling Plan, which also defines watering and monitoring. Dust emissions are a function of storage area, as well as coke handling. The trains that arrive at the facility would travel less than 5 mph while onsite, and would therefore not generate wind-blown coke dust. Off-road vehicle activity in the ODSVRA is a major contributing factor to the PM concentrations observed on the Nipomo Mesa and that the petroleum coke piles

	at the SMR are not a significant source of ambient PM on the Nipomo Mesa.
MRWG-21	The EIR addressed fugitive emissions from tank cars, as discussed under impact AQ.2. Air emissions from tank car fugitive emissions are nominal, totaling only about 0.02 lbs/round trip within SLO County, based on fugitive leaking from tank car components utilizing the fugitive component leak rates as developed by the EPA and CARB and utilized by the SLOCAPCD to estimate fugitive emissions from the components at the SMR. Rails cars would not be opened during transit and any steaming of rail cars would occur at the SMR and not along the mainline routes. Emissions associated with unloading of the tank cars, including pumps, pressure relief valves, manifolds, connections, etc, were all included in the EIR and listed in detail in the Air Quality Appendix. Emissions associated with unloading would not occur during transit. Shrinkage estimates associated with cost projections appear to be very conservative. Loss of 3% of crude volume to evaporation over the course of the transit would produce emissions that far exceed the estimates based on EPA fugitive emissions methodologies and therefore appear to be inaccurate. Not all crude oil is removed from a rail car during unloading, as some remains on the insides of the car and within piping and connections, thereby accounting for some "shrinkage" value. The estimates of rail car fugitive emissions have been included in the EIR and are considered to be accurate as they are based on fugitive emissions from refinery components as utilized by the SLOCAPCD for the SMR. However, inclusion of rail car inspections to ensure non-leaking components is good practice and has been added to mitigation measure AQ-7 for operations.
MRWG-22	The mitigation measures have been developed in coordination with the SLOCAPCD. Emission Reduction Credits (ERC) are standard practice in many air districts state-wide to reduce the impacts of criteria pollutant emissions. Information on ERC available within SLOC have been added to the EIR, as per communication with the SLOCAPCD. Emission reduction credits are a method used throughout California Air Districts to reduce emissions of criteria pollutants on a regional, basin-wide basis and have contributed to the increasing quality of the air in California over the past 2 decades. Impacts of criteria pollutants are spatially large and affect areas through the basin due to the reaction times associated with ozone production. The use of ERCs is accepted practice by the SLOCAPCD and was included as mitigation in the EIR.
MRWG-23	The comment regarding loss of wildlife affecting tourism does not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The commenters concern regarding how the loss of wildlife would affect residents of the Nipomo Mesa and local tourism is included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.

MRWG-24	The comment regarding impacts to sensitive coastal habitat affecting tourism does not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The commenters concern regarding how the impact to sensitive coastal habitat affecting tourism is included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project. Impacts to sensitive coastal habitat would be significant and unavoidable in this scenario.
MRWG-25	The comment regarding the impact to monarch butterfly habitat is inconsistent with what is included in the EIR. The commenter states that "a lack of information doesn't mean there won't be an impact." However, the EIR states that "it is reasonable to assume that long-term impacts from pollutants cannot be discounted, although the affects are unknown." The EIR concludes that there are potential impacts and they are less than significant. No changes to this determination are justified as a result of this comment.
MRWG-26	The comment regarding impacts to the reputation of the Nipomo Mesa area as a rural, high quality area to live does not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The commenters concern regarding impacts to the reputation of the Nipomo Mesa area as a rural, high quality area to live is included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.
MRWG-27	The potential impacts resulting from a catastrophic spill have been specifically discussed within BIO-11 of the RDEIR. The commenters concern regarding substantial adverse effects from a catastrophic spill is included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project. The impact classification would not change as a result of this comment. Impacts to sensitive biological resources would be significant and unavoidable in this scenario.
MRWG-28	CEQA does not require an evaluation of economic or social impacts, and states that "economic or social effects of a project shall not be treated as significant effects on the environment" unless those effects result in physical changes to the environment (CEQA Guidelines Section 15131). Although a spill or fire-related incident could affect the local economy and reputation of San Luis Obispo, these effects would not constitute or cause a physical change in the environment above those already described and discussed in the RDEIR.
MRWG-29	CEQA does not require an evaluation of economic or social impacts, and states that "economic or social effects of a project shall not be treated as significant effects on the environment" unless those effects result in physical changes to the environment (CEQA Guidelines Section 15131). Although the Project could affect tourism or growth in the area, these effects would not constitute or cause a physical change in the environment above those already described and

	discussed in the RDEIR.
MRWG-30	Additional mitigation has been added in response to the comment. See mitigation measure GR-1i (Section 4.6) that requires annual inspections of project related facilities and pipelines. Appendix G contains a preliminary policy consistency analysis for the project. This analysis addresses consistency with the applicable County General Plan policies.
MRWG-31	The refinery already treats a wide variety of crude oil from different sources, many of which are of similar quality to tar sands. The refinery is specifically designed to treat heavy, low quality crude oil. The RDEIR examined changes in emissions associated with a change of slate, as indicated in Section 4.3.4.2, Air Quality and Greenhouse Gases, which sates " For the SMR, key crude slate parameters that could impact air emissions include the percent of BTEX, vacuum resid, sulfur and metals in the crude oil. " The BTEX was analyzed in the health risk assessment to determine the increased health risk. Increased sulfur was assessed as to the increased sulfur truck trips that would be required. None of the other components would alter the emissions at the refinery as the heavy metals would not be emitted into the air from the SMR. Note that as the API gravity would be similar, the emissions of volatile components (ROG) from fugitive emissions would be similar with the change in crude slate. BTEX levels of Canadian tar sands crude oil are similar to other heavy crude oil processed by the SMR and the RDEIR demonstrates that any increases in BTEX would generate a nominal increase in health risk. See Response to CBE-21 and CBE-23. The metals in the tar sands oil would not be volatilized at the SMR or along transportation routes and would therefore not contribute to increases in air-based health risk. The Canadian tar sands are not as "explosive" as Bakken crude oil and present similar risks to the rail transportation of heavy crudes that currently occur within California and through SLOC. The use of higher sulfur crude oils would increase the amount of sulfur produced at the SMR. This increase in sulfur and the associated truck trips are addressed in the RDEIR in Section 4.3, Air Quality and Greenhouse Gases. Emissions of sulfur dioxide are not anticipated to increase as most of the sulfur in the crude is removed as elemental sulfur and trucked from the site and the SLOCAPCD has limits on the emissions of sulfur dioxide from the refinery processing equipment. As the SMR already processes heavy crude oils, and the tar sands crude oils would have a similar proportion of heavier materials, the production of coke is not expected to change with the project. Additional information on the make up the projected crudes compared with the current crude slate at the SMR is

	provided in Chapter 2.0, Project Description. The increased levels of nickel, vanadium, lead and copper do not affect air emissions as none of the crude oil is combusted and none of the metals are carried over in the fuel gas. The metals would remain in the coke. Sulfur production would increase producing potentially more sulfur trucks trips, as discussed in the RDEIR in Section 4.12, Transportation and Circulation. A study performed by the SLOCAPCD, the South County Phase 2 Particulate Study, evaluated whether impacts from off-road vehicle activities at the Oceano Dunes State Vehicle Recreational Area (SVRA), the Phillips Refinery coke piles, and adjacent agricultural fields were contributing to the particulate problems on the Nipomo Mesa (SLOC APCD 2010). The Phase 2 portion of the study concluded that off-road vehicle activity in the SVRA is a major contributing factor to the PM concentrations observed on the Nipomo Mesa and that neither the petroleum coke piles at the Phillips facility nor agricultural fields or activities in and around the area are a significant source of ambient PM on the Nipomo Mesa. The composition of the particulates is predominately natural crustal particles. The SLOCAPCD has determined that the dune complex along the coast of the Five Cities area is the source of the high particulate matter levels measured at the South Coast stations (SLOCAPCD Annual Emissions Report, 2013). The SMR has a coke dust plan to reduce coke dust and it does involve watering. However, the proposed Project is not anticipated to increase coke handling or contribute to dust particulate levels in the area. Air quality violations on the mesa a primarily associated with natural crustal particulates. The Quantitative Risk Analysis that was prepared for the proposed project evaluated a variety of crude oil types and used the properties for a worst-case crude that consisted of Canadian Tar Sands crude oil that is blended with diluent. The figure below shows the breakdown of the yield for the crude mix currently being run by the SMR compared with the two dilbit crudes evaluated in the RDEIR.



Sources:

1. http://www.crudemonitor.ca/dist.php?units=c&temp=527&submit=-%3E&recov=33.63&acr=PH&time=hist
2. http://www.crudemonitor.ca/dist.php?acr=AWB&time=hist
3. Phillips 66-Average values for 2014 and part of 2015.

This shows that the amount of Naphtha, distillate, gas oil, and resid for the two dilbit crude evaluated in the RDEIR are very similar to the typical composition of crude that is currently processed at the SMR. This data would indicate that the amount of Naphtha (i.e., pressure distillate) and gas oils produced at the SMR with the use of the dilbits would not increase with the change in crude. Therefore, the amount shipped to the Rodeo Refinery would not increase as a result of the change in crude oil slate.

As noted in the RDEIR, 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.

The SMR, as with all refineries, is similar to other manufacturing facilities that regularly evaluate their principal manufacturing feedstocks in terms of availability, suitability, and economics. This is certainly true of the crude oil feedstock used at the SMR. The refinery processes a range of crude oils from different sources, and the crudes have varied over time. In addition, the refinery often blends crudes from multiple sources prior to processing to assure the crude is within the processing design limits of the refinery.

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. RDEIR Table 4.7.14 provided the key corrosivity driving properties (sulfur and total acid number (TAN)) of the typical crude blend and range of major crudes processed at the SMR as well as a range of typical crudes that could be

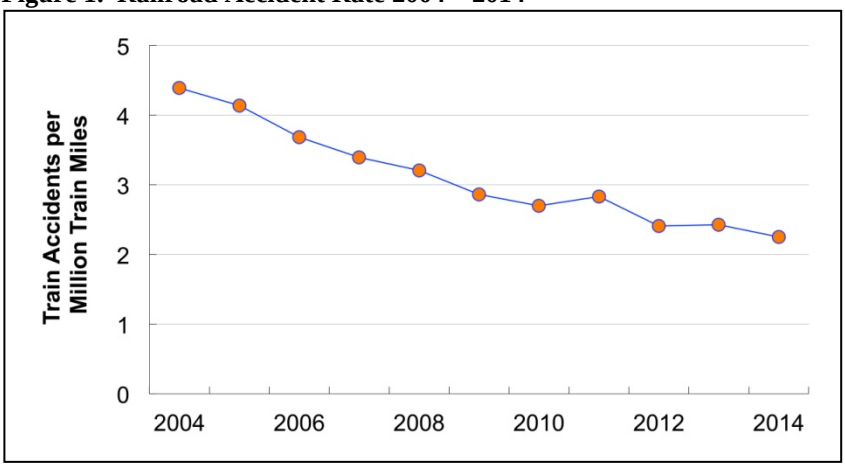
	delivered by rail. Naphthenic acids are natural constituents in many petroleum sources, including bitumen from oil sands. Naphthenic acids can create corrosion problems. This type of corrosion is referred to as naphthenic acid corrosion (NAC). Because of the lack of available naphthenic acid concentration 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. Phillips 66 has approved capital projects planned between now and 2015 to further upgrade piping and equipment and improve organic acid corrosion resistance at SMR. Phillips 66 has a number of existing process safety policies and procedures that would apply to the SMR rail project, including the equipment and operating procedures. These programs are designed to prevent releases of hazardous materials, minimize risk, and ensure the refinery's ability to process crude without increasing risk of releases. For example, the Mechanical Integrity Program covers equipment used to process, control, and store hazardous chemicals and assigns responsibility for equipment inspection and testing as well as maintenance. This program meets the requirements of CCR Title 8 Sec 5189, "Process Safety Management of Acutely Hazardous Materials" (f), (j) and 29 CFR 1910.119, "Process Safety Management of Highly Hazardous Chemicals" (j). The refinery uses a Positive Material Identification (PMI) program to ensure the integrity of all mechanical and pressurized systems. This program is overseen

	by the refinery's Inspection Supervisor. Any new feedstock coming to the refinery undergoes a complete Management of Change (MOC) analysis to ensure that all hazards, as well as the refinery's systems are safe and operable. The MOC program is part of the refinery's Process Safety Management program and tracks equipment modification, addition of new systems and process changes. MOC covers all changes that involve specific chemicals at or above threshold limits as defined in California Code of Regulation, Section 5189, Appendix A or flammable liquids or gasses as defined by California Code of Regulations, Section 5194(c) including new construction, modifications, changes in chemicals or materials, changes in feedstock, and changes in concentrations, temperatures, pressures, or flow rates outside of established Safe Process Limits. A review of the data in RDEIR Table 4.7.14 shows that 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.
MRWG-32	A Quantitative Risk Analysis (QRA) was conducted as part of the RDEIR and is documented in the Hazards and Hazardous Materials Section (see Section 4.7 and Appendix H). The rail routes were divided up into distinct segments to account for differing population levels along the rail routes. Each segment was assigned a population density reflecting the unique populations along the rail route. Segments where facilities and/or events might attract temporary high population levels were assigned a population that reflected the larger temporary population, and did not correct for seasonal or diurnal variation, thus slightly overestimating the risk for the segment. The fact that every possible landmark along the proposed rail routes is not explicitly mentioned does not mean that it was omitted. The population assigned for each segment characterizes the potential residential, commercial, industrial, and venue population that is, or could be temporarily, present along the segment. The historical accidental data used in the RDEIR is not limited to trains shipping crude oil in recent years, but the long term historical train accident data for all freight. The use of data from all freight train movements nationwide provides a very robust database for estimating rail accidents and derailments. Average U.S. train derailment rates over the 5-year period 2005 – 2009 have previously been estimated using data from the U.S. Department of Transportation, Federal Railroad Administration (FRA) Rail Equipment Accident (REA) database combined with traffic data from the rail industry (Liu

	et al, 2014). This dataset was used to develop detailed derailment rates as a function of three factors: FRA Track Class, traffic volume (which appears to be correlated with additional maintenance above basic federal requirements) and Method of Operation (i.e., signaled or non-signaled trackage). All three of these factors have a significant effect on freight train derailment rate. These factors were used to calculate segment-specific derailment rates thereby enabling a fine grained calculation of derailment probability for any particular route. As discussed below, the overall accident rate has declined since this data was recorded and analyzed, thereby resulting in an overestimate of the present-day risk, and future risk. For example the average accident rate for the five-year period 2010-2014 was 27% lower than the average for the five-year period from 2005-2009, and the preliminary estimate of the accident rate for 2014 was 35% lower than the five-year period from 2010-2014. The reason data from 2005-2009 was used is because that dataset contained additional information that allowed for the estimated effect of FRA Track Class, Traffic Density and Method of Operation (Signaled or Unsignaled) on derailment rate. This additional granularity is needed for more precise segment-specific accident rate used in the analysis. The derailment rates calculated were based on 1,420 Class 1 railroad mainline derailments. Inclusion of a few more crude oil train derailments in recent years would have virtually no effect on the estimated rates. The suggestion that because these recent accidents were not included in our dataset somehow invalidates the results reflects a lack of understanding of the analytical technique and how it was used. The data needed for this analysis are less complete than for overall accident rate but all other things being equal, there is no reason to believe that crude oil trains derail at a rate different than other freight trains. Using what data are available and making certain assumptions, the EIR consultant conducted an analysis in 2014 and observed no significant difference in the derailment rate for crude oil trains then for other freight trains. The railroad accident rate has been steadily trending downward for over a decade. The accident rates in the past few years were the lowest since the FRA started recording the data in the mid-1970s. In the period from 2004 to 2014 the rate declined by 49% (almost half) (see Figure 1 below). Most derailments receive little or no attention from the public or media. Railroads are required by regulation to report all accidents that exceed a certain monetary threshold in damage to track, signals and rolling stock (currently $9,600). Proper estimation of train accident rates involves analysis of all accidents, divided by the total amount of traffic. The reason that some perceive an increase in the railroad petroleum crude oil accident rate is because of the more than 50-fold increase in this traffic since 2009. Estimates are that 233,698 tank cars of crude oil were moved by rail in 2012. This increased to over 435,000 tank cars moved by rail in 2013 (the full year of data is not yet available for 2014). With this increase in crude by rail traffic, the derailment and spill probability data would suggest that

multiple crude by rail accidents would happen each year.

Figure 1. Railroad Accident Rate 2004 – 2014



Data Source: US DOT Federal Railroad Administration
http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx
(Data for 2014 include January through November)

Using the accident and spill probability data from the RDEIR the DEIR would have estimated that between 2012 and 2013 there would have been two to five derailments that had spills of 100 gallons or more in the U.S. Based upon the United States Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) incident data base, there were three crude oil train derailments with spills of 100 gallons or more.

This does not contain the accident and spills that have occurred in Canada over this period since the accident and spill probability data is for mainline rails within the United States only.

The methodology for estimating crude oil unit train accidents and spill probabilities is also consistent with the methodology outlined by the American Institute of Chemical Engineers, Center for Chemical Process Safety (AIChE CCPS) document *Guidelines for Chemical Transportation Risk Analysis* (CCPS, 1995), which is the definitive reference on the methodology for estimating hazardous materials transportation risk.

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

	RDEIR table 4.7.2 contains detailed UPRR accident data UPRR operations on a national, California and county level, including the record on the transportation of hazardous materials. Data was provided for the most recent 10 year period that was available at the time of RDEIR preparation. As shown in the graph above, train accident rates continue to decline. While there have been more accidents recently involving crude oil trains, this is a result of the fact that rail transportation of crude oil has increased dramatically over the past few years. However, the accident rate, expressed as probability per mile traveled, continues to decrease. As explained above, the accident rate data used in the RDEIR has been a good predictor of the number of crude oil train accidents over the past few years. The RDEIR provided train accident information from the FRA and CPUC for informational purposes. These are two very different databases with different reporting requirements. The RDEIR analysis is based on the more comprehensive and complete FRA database.
MRWG-33	The shuttlewagon is substantially smaller than a locomotive and is used to handle only a few rail cars at a time. These emissions are included in the SMR baseline emission estimates.
MRWG-34	The comment recommends that the RDEIR include accident information for rail terminals that is reported under the requirements of 49 CFR 195. Unfortunately, 49 CFR 195 does not cover rail terminals, but covers transportation of hazardous liquids by pipeline. While it is recognized that Phillips 66 does not have any operating experience with rail unloading facilities at the SMR, providing pipeline accident information does not provide any relevant information for the proposed project.
MRWG-35	The RDEIR provides an overview of the applicable regulations covering the proposed project. It is not necessary to print the regulations verbatim. The Summary of relevant CPUC regulations was moved to Appendix H in order to improve the readability of Section 4.7, Hazards and Hazardous Materials, which was already quite long. Moving this type of information, and referencing the location of the appendix material in the body of the RDEIR is definitely not trying to hide information and is consistent with the intent of CEQA to provide streamlined and readable EIRs. As for compliance with the CPUC regulations, the proposed project will be required to comply with all CPUC and DOT regulations. The project is currently designed to comply with the CPUC regulations, and future compliance will be the subject of ongoing regulatory agency oversight. The CPUC, as a Responsible Agency under CEQA was contacted for their input on the proposed project. The CPUC provided their input in an August 6, 2013 letter to the County of San Luis Obispo (Please see RDEIR Appendix I for a copy of the CPUC letter).

MRWG-36	Because San Luis Obispo County does not have established public safety thresholds, the thresholds used in the ERI analysis were modeled after the Santa Barbara County General Plan (SBC) Public Safety Thresholds adopted in August 1999. These thresholds have been used for EIRs by the California State Lands Commission, California Coastal Commission, California Energy Commission as well as other local jurisdictions within Southern California (Los Angeles County, City of Whittier, and City of Hermosa Beach) to determine if a project presents a "significant hazard to the public". In addition, a Safety Element Supplement was adopted by SBC in February 2000 (Board of Supervisors Resolution 00-56) covering hazardous materials. The objective of the Safety Element is to define unacceptable risk in a manner that guides consistent and sound land-use decisions involving hazardous facilities. As part of this objective, SBC defined unacceptable risk involving new development, as well as modifications to existing development if those modifications increase risk. The public risk thresholds utilize FN curves, and consist of three classifications — “green,” “amber,” and “red” — for guiding the determination of significance, based on the estimated probability and consequence of an accident. FN curves are graphs that plot the frequency of scenarios vs. the consequences (the number of fatalities or injuries) on a logarithmic scale. In summary, the thresholds utilize FN curves to define the significance level of a proposed project or modification. The guidelines indicate that significant impacts would be avoided if the frequency of a single fatality is shown to be less than 1 in 1,000,000 years (the individual specific risk). If the risk of a single fatality is greater than 1 in 1,000,000 years, then a detailed quantitative risk analysis must be completed to indicate whether the risks are below those defined by the FN curves as significant.
MRWG-37	UPRR uses the Rail Corridor Risk Management System (RCRMS) to aid in the determination of the safest and most secure rail routes for trains with 20 or more cars of crude oil. RCRMS is an analytical tool, developed in coordination with the federal government, including the U.S. Department of Homeland Security (DHS), PHMSA and FRA. UPRR currently use RCRMS in the routing of security sensitive materials. This tool takes into account 27 risk factors—including volume of commodity, trip length, population density along the route, local emergency response capability, track quality and signal systems—to assess the safety and security of rail routes: 1. Volume of hazardous material transported. 2. Rail traffic density. 3. Trip length for route. 4. Presence and characteristics of railroad facilities. 5. Track type, class, and maintenance schedule. 6. Track grade and curvature.

	7. Presence or absence of signals and train control systems along the route ("dark" versus signaled territory). 8. Presence or absence of wayside hazard detectors. 9. Number and types of grade crossings. 10. Single versus double track territory. 11. Frequency and location of track turnouts. 12. Proximity to iconic targets. 13. Environmentally sensitive or significant areas. 14. Population density along the route. 15. Venues along the route (stations, events, places of congregation). 16. Emergency response capability along the route. 17. Areas of high consequence along the route, including high consequence targets as defined in §172.820(c). 18. Presence of passenger traffic along route (shared track). 19. Speed of train operations. 20. Proximity to en-route storage or repair facilities. 21. Known threats, including any non-public threat scenarios provided by the Department of Homeland Security or the Department of Transportation for carrier use in the development of the route assessment. 22. Measures in place to address apparent safety and security risks. 23. Availability of practicable alternative routes. 24. Past incidents. 25. Overall times in transit. 26. Training and skill level of crews. 27. Impact on rail network traffic and congestion. Much of the data that is used for the RCRMS analysis consists of sensitive and proprietary information that would be inappropriate to publish in a public forum. UPRR has already identified their preferred routes that were evaluated in the RDEIR, and by default, has also omitted several routes that are less desirable. In San Luis Obispo County, there are only two options, north or south through the county, that are both considered acceptable and currently used by ExxonMobil for their San Ardo crude oil unit train.
MRWG-38	Information on ERC available within SLOC have been added to the EIR, as per communication with the SLOCAPCD.
MRWG-39	The Rail Spur Project's compatibility with existing and planned land uses is discussed in Section 4.8, Land Use and Recreation, of the RDEIR, which identified a significant and unavoidable impact on land use as a result of an unavoidable health risk hazard that would result from the project. The Project's consistency with applicable plans and policies is discussed in Appendix G of the RDEIR, and any identified potential inconsistencies are further evaluated in Section 4.8, Land Use and Recreation, of the RDEIR. The comment has been included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.

	This comment ignores the information on crude slate characteristics and hazards presented in the RDEIR as Impact HM.3 (see section 4.7, Hazards and Hazardous Materials). As noted in the RDEIR, 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. The SMR, as with all refineries, is similar to other manufacturing facilities that regularly evaluate their principal manufacturing feedstocks in terms of availability, suitability, and economics. This is certainly true of the crude oil feedstock used at the SMR. The refinery processes a range of crude oils from different sources, and the crudes have varied over time. In addition, the refinery often blends crudes from multiple sources prior to processing to assure the crude is within the processing design limits of the refinery. 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. RDEIR Table 4.7.14 provided the key corrosivity driving properties (sulfur and total acid number (TAN)) of the typical crude blend and range of major crudes processed at the SMR as well as a range of typical crudes that could be delivered by rail. Naphthenic acids are natural constituents in many petroleum sources, including bitumen from oil sands. Naphthenic acids can create corrosion problems. 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. Phillips 66 has approved capital projects planned between now and 2015 to further upgrade piping and equipment and improve organic acid corrosion resistance at SMR. Phillips 66 has a number of existing process safety policies and procedures that would apply to the SMR rail project, including the equipment and operating procedures. These programs are designed to prevent releases of hazardous materials, minimize risk, and ensure the refinery's ability to process crude without increasing risk of releases. For example, the Mechanical Integrity Program covers equipment used to process, control, and store hazardous chemicals and assigns responsibility for equipment inspection and testing as well as maintenance. This program meets the requirements of CCR Title 8 Sec 5189, "Process Safety Management of Acutely Hazardous Materials" (f), (j) and 29 CFR 1910.119, "Process Safety Management of Highly Hazardous Chemicals" (j). The refinery uses a Positive Material Identification (PMI) program to ensure the integrity of all mechanical and pressurized systems. This program is overseen by the refinery's Inspection Supervisor. Any new feedstock coming to the refinery undergoes a complete Management of Change (MOC) analysis to ensure that all hazards, as well as the refinery's systems are safe and operable. The MOC program is part of the refinery's Process Safety Management program and tracks equipment modification, addition of new systems and process changes. MOC covers all changes that involve specific chemicals at or above threshold limits as defined in California Code of Regulation, Section 5189, Appendix A or flammable liquids or gasses as defined by California Code of Regulations, Section 5194(c) including new construction, modifications, changes in chemicals or materials, changes in feedstock, and changes in concentrations, temperatures, pressures, or flow rates outside of established Safe Process Limits. A review of the data in RDEIR Table 4.7.14 shows that 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. The RDEIR examined changes in emissions associated with a change of slate, as indicated in Section 4.3.4.2, Air Quality and Greenhouse Gases, " For the SMR, key crude slate parameters that could impact air emissions include the percent of BTEX, vacuum resid, sulfur and metals in the crude oil. " The BTEX was analyzed in the health risk assessment to determine the increased

	health risk. Increased sulfur was assessed as to the increased sulfur truck trips that would be required. None of the other components would alter the emissions at the refinery as the heavy metals would not be emitted into the air from the SMR. Note that as the API gravity would be similar, the emissions of volatile components (ROG) from fugitive emissions would be similar with the change in crude slate. BTEX levels of Canadian tar sands crude oil are similar to other heavy crude oil processed by the SMR and the RDEIR demonstrates that any increases in BTEX would generate a nominal increase in health risk. See Response to CBE-21 and CBE-23. The metals in the tar sands oil would not be volatilized at the SMR or along transportation routes and would therefore not contribute to increases in air-based health risk. The Canadian tar sands are not as "explosive" as Bakken crude oil and present similar risks to the rail transportation of heavy crudes that currently occur within California and through SLOC. The increased levels of nickel, vanadium, lead and copper do not affect air emissions as none of the crude oil is combusted and none of the metals are carried over in the fuel gas. The metals would remain in the coke. Sulfur production would increase producing potentially more sulfur trucks trips, as discussed in the RDEIR (see Section 4.3, Air Quality and Greenhouse Gases and 4.12, Transportation and Circulation). The use of higher sulfur crude oils would increase the amount of sulfur produced at the SMR. This increase in sulfur and the associated truck trips are addressed in the RDEIR in Section 4.3, Air Quality and Greenhouse Gases. Emissions of sulfur dioxide are not anticipated to increase as most of the sulfur in the crude is removed as elemental sulfur and trucked from the site and the SLOCAPCD has limits on the emissions of sulfur dioxide from the refinery processing equipment. The refinery already treats a wide variety of crude oil from different sources, many of which are of similar quality to tar sands. The refinery is specifically designed to treat heavy, low quality crude oil. A study performed by the SLOCAPCD, the South County Phase 2 Particulate Study, evaluated whether impacts from off-road vehicle activities at the Oceano Dunes State Vehicle Recreational Area (SVRA), the Phillips Refinery coke piles, and adjacent agricultural fields were contributing to the particulate problems on the Nipomo Mesa (SLOC APCD 2010). The Phase 2 portion of the study concluded that off-road vehicle activity in the SVRA is a major contributing factor to the PM concentrations observed on the Nipomo Mesa and that neither the petroleum coke piles at the Phillips facility nor agricultural fields or activities in and around the area are a significant source of ambient PM on the Nipomo Mesa. The composition of the particulates is predominately natural crustal particles. The SLOCAPCD has determined that the dune complex along the coast of the Five Cities area is the source of the high

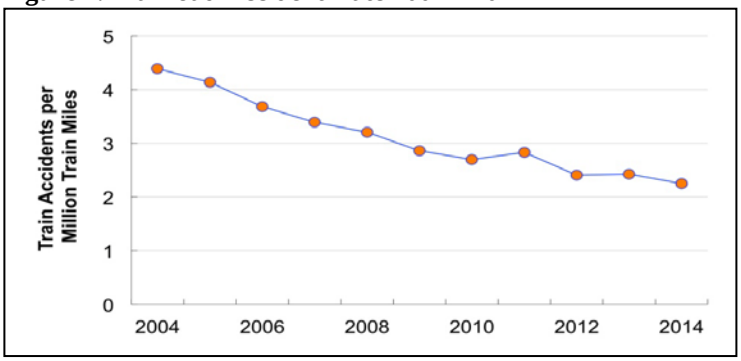
	particulate matter levels measured at the South Coast stations (SLOCAPCD Annual Emissions Report, 2013). The SMR has a coke dust plan to reduce coke dust and it does involve watering. However, the proposed Project is not anticipated to increase coke handling or contribute to dust particulate levels in the area. Air quality violations on the mesa a primarily associated with natural crustal particulates. The Quantitative Risk Analysis that was prepared for the proposed project evaluated a variety of crude oil types and used the properties for a worst-case crude that consisted of Canadian Tar Sands crude oil that is blended with diluent. The figure below shows the breakdown of the yield for the crude mix currently being run by the SMR compared with the two dilbit crudes evaluated in the RDEIR.
MRWG-40	The RDEIR used a multi-component spill model to evaluate the flammability hazards of various crude oil/bitumen mixtures and used the most volatile mixture in the RDEIR consequence modeling. The multi-component spill model allows for an estimate of vapor evolution for each component and the overall flammable vapor flux. The multi-component pool fire model also simulates the change in crude oil properties as the lighter, more volatile components burn off at a faster rate than the heavy tar sands components. The use of multi-component models to evaluate spills and fires captures the added volatility characteristics of dilbit. See Response to WRWG-39.
MRWG-41	The historical accidental data used in the RDEIR is not limited to trains shipping crude oil in recent years, but the long term historical train accident data for all freight. The use of data from all freight train movements nationwide provides a very robust database for estimating rail accidents and derailments. Average U.S. train derailment rates over the 5-year period 2005 – 2009 have previously been estimated using data from the U.S. Department of Transportation, Federal Railroad Administration (FRA) Rail Equipment Accident (REA) database combined with traffic data from the rail industry (Liu et al, 2014). This dataset was used to develop detailed derailment rates as a function of three factors: FRA Track Class, traffic volume (which appears to be correlated with additional maintenance above basic federal requirements) and Method of Operation (i.e., signaled or non-signaled trackage). All three of these factors have a significant effect on freight train derailment rate. These factors were used to calculate segment-specific derailment rates thereby enabling a fine grained calculation of derailment probability for any particular route. As discussed below, the overall accident rate has declined since this data was recorded and analyzed, thereby resulting in an overestimate of the present-day risk, and future risk. For example the average accident rate for the five-year period 2010-2014 was 27% lower than the average for the five-year period from 2005-2009, and the preliminary estimate of the accident rate for 2014 was 35% lower than the five-year period from 2010-2014.

The reason data from 2005-2009 was used is because that dataset contained additional information that allowed for the estimated effect of FRA Track Class, Traffic Density and Method of Operation (Signaled or Unsignaled) on derailment rate. This additional granularity is needed for more precise segment-specific accident rate used in the analysis.

The derailment rates calculated were based on 1,420 Class 1 railroad mainline derailments. Inclusion of a few more crude oil train derailments in recent years would have virtually no effect on the estimated rates. The suggestion that because these recent accidents were not included in our dataset somehow invalidates the results reflects a lack of understanding of the analytical technique and how it was used. The data needed for this analysis are less complete than for overall accident rate but all other things being equal, there is no reason to believe that crude oil trains derail at a rate different than other freight trains. Using what data are available and making certain assumptions, the EIR consultant conducted an analysis in 2014 and observed no significant difference in the derailment rate for crude oil trains then for other freight trains.

The railroad accident rate has been steadily trending downward for over a decade. The accident rates in the past few years were the lowest since the FRA started recording the data in the mid-1970s. In the period from 2004 to 2014 the rate declined by 49% (almost half) (see Figure 1 below). Most derailments receive little or no attention from the public or media. Railroads are required by regulation to report all accidents that exceed a certain monetary threshold in damage to track, signals and rolling stock (currently $9,600). Proper estimation of train accident rates involves analysis of all accidents, divided by the total amount of traffic. The reason that some perceive an increase in the railroad petroleum crude oil accident rate is because of the more than 50-fold increase in this traffic since 2009. Estimates are that 233,698 tank cars of crude oil were moved by rail in 2012. This increased to over 435,000 tank cars moved by rail in 2013 (the full year of data is not yet available for 2014). With this increase in crude by rail traffic, the derailment and spill probability data would suggest that multiple crude by rail accidents would happen each year.

Figure 1. Railroad Accident Rate 2004 – 2014



Data Source: US DOT Federal Railroad Administration
http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx
(Data for 2014 include January through November)

	Using the accident and spill probability data from the RDEIR the DEIR would have estimated that between 2012 and 2013 there would have been two to five derailments that had spills of 100 gallons or more in the U.S. Based upon the United States Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) incident data base, there were three crude oil train derailments with spills of 100 gallons or more. This does not contain the accident and spills that have occurred in Canada over this period since the accident and spill probability data is for mainline rails within the United States only. The methodology for estimating crude oil unit train accidents and spill probabilities is also consistent with the methodology outlined by the American Institute of Chemical Engineers, Center for Chemical Process Safety (AIChE CCPS) document *Guidelines for Chemical Transportation Risk Analysis* (CCPS, 1995), which is the definitive reference on the methodology for estimating hazardous materials transportation risk. The QRA that was prepared for the RDEIR is also consistent with this comment in that it clearly demonstrates that mainline rail accidents are a significant impact of the project, and that when the accident probabilities are extrapolated to all crude oil rail movement in the US there will likely be many more accidents.
MRWG-42	The RDEIR analysis is in agreement with this comment in that it is clear that there is a relatively high probability of a unit train derailment. RDEIR Table 4.7.1 “Rail Incidents - Initiating and Contributing Causes” identifies more than 50 types of events that can lead to a rail accident. The root causes listed in this comment are all initiating events that are included in the larger database of train derailments that was used to estimate route-specific derailment rates. As noted in the RDEIR, the probability of these initiating events can be reduced, but not eliminated. As a result, the RDEIR found the risk of a train derailment and spill to be a <u>Significant and Unavoidable (Class I)</u> impact. While there are a lot of adjectives that can be used to describe the risk of crude oil rail transport, the CEQA determination sums up the potential impact quite well: <u>Significant</u>, as in an impact that exceeds an acceptable threshold; and <u>Unavoidable</u>, as in there isn’t anything feasible that can be done to reduce the impact to public safety to a level that would be acceptable to the public.
MRWG-43	As noted in the RDEIR, the current DOT-111 tank cars have serious safety deficiencies that can lead to an unacceptable spill rate in the event of a train derailment. As a result, the RDEIR specifically included mitigation measure HM-2a, which requires only rail cars designed to 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. Even with the improved rail cars, the RDEIR

	found that the risk of a crude oil train accident and spill was considered a Significant and Unavoidable (Class I) impact.
MRWG-44	The designation of the next generation crude oil tank car is still in progress. The RDEIR identified the most robust tank car design that has been identified by the PHMSA and FRA as the only tank car that would be acceptable for the proposed project, yet the mitigated risk is still considered Significant and Unavoidable (Class I). It should be noted that there are no rail cars in existence that have a zero probability of failure. Even tank cars used to transport acutely hazardous materials, such as chlorine gas, have failed in the past; sometimes catastrophically. A relative risk analysis for the PHMSA and FRA Designed Tank Cars listed in the FRA, July 23, 2014 Proposed Rulemaking was conducted by experts at the Rail Transportation and Engineering Center (RailTEC), Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign. Their expert analysis clearly identified the Option 1 tank cars as offering the best available spill protection in the event of a train derailment. CEQA requires that mitigation measures, such as the one requiring upgraded tank cars, be feasible to implement. The Option 1 tank cars are the safest rail cars that could be reasonably available for the project and therefore, are considered feasible under CEQA.
MRWG-45	The RDEIR describes the types of impacts that could occur as a result of an crude oil unit train accident. The QRA clearly shows the probability of injuries and fatalities, and the thermal and explosion criteria describe the types of injuries. Under CEQA, it would be speculative to describe scenarios, such as those described in the comment that may or may not occur.
MRWG-46	In San Luis Obispo County, the Cuesta Grade represents an area where a runaway train could occur. A runaway train coming down the Cuesta Grade could result in spills of crude oil and associated fires. The Rail Spur Project would use two additional locomotives (for a total of five locomotives) on the crude oil unit train for crossing the Cuesta Grade. These two additional locomotives would be added to the train at Santa Margarita and removed from the train in the City of San Luis Obispo once the train had crossed the Cuesta Grade. These additional locomotives would help to assure that the train can safely traverse the Cuesta Grade.
MRWG-47	Actually, the RDEIR used route specific accident data to evaluate the potential for train incidents. Experts at the Rail Transportation and Engineering Center (RailTEC), Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign prepared a route specific analysis for each route to estimate derailment probabilities. The Quantitative Risk Analysis used this data along with information on population densities, including sensitive populations, to estimate the cumulative risk along the proposed rail routes. The RDEIR found the risk of a train derailment and spill to be a Significant and

	Unavoidable (Class I) impact.
MRWG-48	A 5-mile evacuation zone would be excessive for a crude oil train carrying heavy tar sands crude oil. However, the potential impacts of a train derailment, oil spill and potential fires and explosions would be substantial. Therefore, the RDEIR found that the risk of a crude oil train accident and spill was considered a Significant and Unavoidable (Class I) impact. The potential consequences of a potential accident also need to be taken into account; specifically the distance from the rail line where adverse impacts would be possible. The worst-case thermal hazard zone associated with the catastrophic tank car failure and fire was approximately 500 meters. Within this distance, there is the possibility that individuals could experience thermal injuries. Beyond 500 meters, potential injuries would not likely occur. Likewise, the potential for fatalities is limited to 300 meters from the rail line.
MRWG-49	We would agree with the comment that Phillips, as well as UPRR, is not invulnerable to accidents. The purpose of CEQA and the RDEIR QRA, was to quantify how likely an accident would be for the proposed project. Clearly, a zero probability would not be a credible result, nor would a finding that an accident would occur with 100 percent certainty. A QRA identifies how likely certain events are, where that risk is greatest, how effective mitigation is in reducing the risk and how significant the risk compared to accepted thresholds. In the case of the proposed project, the risk of a train derailment and spill was found to be a Significant and Unavoidable (Class I) impact.
MRWG-50	Risk is a function of the probability of an accident and the resulting consequences. From a public safety standpoint, the highest risk is at locations with the highest population densities. A train derailment and spill in a sparsely populated area would not result in many injuries or fatalities, thus the risk would be considered low. Clearly, catastrophic risk incidents would occur where there are large concentrations of people immediately adjacent to the railroad. The answer in this comment is in the comment itself, which identifies numerous population centers and gathering points. Taken individually, the potential risk at any of the listed locations is considered low because the probability of a derailment and spill at that exact location is also low. However, societal risk, as presented in Figure 4.7-5, for example, is the cumulative risk to the public along the entire rail route. Focusing on the risk at individual points along the route would trivialize the overall societal risk by peicemealing the risk into less than significant segments.
MRWG-51	Potential impacts associated with land use incompatibilities are discussed in Section 4.8 of the RDEIR. As explained in that section, an incompatibility would not necessarily result in a significant land use impact, particularly if the impact is based on the same environmental effects identified in other sections of the RDEIR (i.e., Aesthetics and Visual Resources, Hazards and Hazardous

	Substances, Noise). To result in a significant effect on land use, the incompatibility would need to result in some additional adverse effect, such as health risks, public safety issues, or the inability to sleep, relax, or enjoy the full use of one's property. Using this approach, a significant and unavoidable land use impact was identified based on the increased health risk that would result from increased diesel particulate matter emissions from the Project. Other potential incompatibilities, such as increased air emissions, noise, odor, and hazards, were also considered. Applicable zoning and land use standards associated with the Project Site and surrounding area, and the Rail Spur Project's potential consistency with applicable standards and policies and "what was originally intended by [County] planners" for the surrounding areas, are addressed in Appendix G of the RDEIR. While the RDEIR discusses potential inconsistencies with applicable planning documents, the decision of whether a proposed project is consistent with a particular plan or policy must ultimately be made by the local decision-making body. The comment has been included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.
MRWG-52	Section 4.8 of the RDEIR accurately describes the proposed expansion of industrial uses approximately 0.85 mile into the existing buffer area, reducing the buffer between residential and recreational uses east of the Project Site from approximately 1.4 miles to 0.6 mile, consistent with this comment. This effect's significance under land use threshold (a) and (c) is discussed in detail in Section 4.8 (Land Use and Recreation) of the RDEIR. Potential effects under land use threshold (d) is also discussed in Section 4.8. The RDEIR concludes that the extension of industrial uses in this area would result in increased air emissions, noise, odors, health risks, visual impacts, and other potential impacts that would affect land use compatibility with surrounding residential uses. However, each of these environmental effects are identified and discussed in other Sections of the RDEIR. For the evaluation of land use impacts, it was explained that an incompatibility would not necessarily result in a significant land use impact, particularly if the impact is based on the same environmental effects identified in other sections of the RDEIR (i.e., Aesthetics and Visual Resources, Hazards and Hazardous Substances, Noise). To result in a significant effect on land use, the incompatibility would need to result in some additional adverse effect, such as health risks, public safety issues, or the inability to sleep, relax, or enjoy the full use of one's property. Using this approach, a significant and unavoidable land use impact was identified based on the increased health risk that would result from increased diesel particulate matter emissions from the Project. Other compatibility issues were also considered as a result of the proposed expansion of the rail spur into this area. The expansion was identified as Potentially Inconsistent with buffer policies in the South County Coastal Area Plan (refer to Appendix G). While the RDEIR discusses potential inconsistencies with applicable planning documents, the decision of whether a proposed project is consistent with a particular plan or policy must ultimately be made by the local

	decision-making body. The comment has been included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.
MRWG-53	The Project Description describes the intermittent use of this area in Section 2.5, Operations, and 2.5.2, Train Unloading Sequence. On average, a train would be at the site for 10 to 12 hours five days per week, which represents between approximately 30 to 35 percent of the time in a week (50 to 60 hours per week / 168 hours total in one week). The proposed use of this area would not be minimal; however, it would be "intermittent" (sporadic, irregular, discontinuous). Over 97 percent of the existing buffer area east of the refinery would remain undeveloped and would not be altered by the proposed Project. Therefore, this area would continue to serve as an area where pollutants from refining activities could be deposited. Emissions at the refinery and associated health risks currently exceed acceptable thresholds and would continue to exceed acceptable thresholds with implementation of the Project. Therefore, the comment accurately reflects the determination that the proposed extension of the rail extension into the buffer area would potentially be incompatible with the South County Coastal Area Plan. Refer to the Response to MRWG-52 for a discussion of the potential consistency of this proposed use with applicable County plans and policies.
MRWG-54	The RDEIR identified air quality emissions and associated health risks that exceed SLOCAPCD standards. Therefore, as discussed in Section 4.3, Air Quality and Greenhouse Gases, requirements for on- and off-site mitigation were identified, consistent with SLOCAPCD standards. Because off-site mitigation was necessary, the RDEIR determined that on-site impacts may not be reduced below acceptable thresholds; therefore, significant unavoidable impacts were identified for air quality and land use. The need for off-site mitigation and identification of residual significant and unavoidable impacts does not violate SLOCAPCD standards. As further described in Appendix G of the RDEIR, the Applicant would have to obtain Authority to Construct (ATC) and Permit to Operate (PTO) from the SLOCAPCD for the Rail Spur Project. This would assure that the project complies with all air quality standards. While the RDEIR discusses potential inconsistencies with applicable planning documents, the decision of whether a proposed project is consistent with a particular plan or policy must ultimately be made by the local decision-making body. The comment has been included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.
MRWG-55	The comment states agreement with the RDEIR; therefore, no revisions or additional information is necessary.
MRWG-56	The RDEIR discusses impacts associated with the proposed expansion of industrial activities within the existing buffer east of the SMR (including

	increased health risks, noise, and light) in Section 4.8 (Land Use and Recreation).
MRWG-57	Potential impacts associated with surrounding land use incompatibilities are discussed in Section 4.8 of the RDEIR. The project-related impacts that would affect other issue areas evaluated in the EIR provide a good indication of the Rail Spur Project's compatibility with surrounding land uses, including the evaluation of air quality, noise, odor, and hazards of the Rail Spur Project. Typical effects of impacts associated with these types of incompatibilities include health risks, public safety issues, and the inability to sleep, relax, or enjoy the full use of one's property. More detailed information on the impacts associated with each of these issue areas is provided in their respective section in Chapter 4.0 of the EIR. A significant impact to one of these other issue areas would constitute a significant impact related to surrounding land use incompatibility. The text referenced in the comment has been modified to reflect the discussion above.
MRWG-58	Potential impacts associated with noise and land use incompatibilities are discussed in Sections 4.8 (Land Use and Recreation) and 4.9 (Noise and Vibration) of the RDEIR. As explained in those sections, noise impacts would be within acceptable thresholds and less than significant with implementation of identified mitigation measures. Table 4.9.11 (Section 4.9, Noise and Vibration) in the RDEIR lists the estimated hourly average noise levels from nighttime rail spur activities. A peak increase of 3.6 dBA at Louise Lane is anticipated under the mitigated case. While these noise levels could be heard, they are not anticipated to produce a disturbance or awake residents. Noise travels a substantial distance and activities, such as trains or vehicles, can be heard a substantial distance away from the source. This does not mean that the noise that can be heard produces a disturbance or is annoying or exceeds the defined thresholds. A shown in Table 4.9.11 with mitigation none of the residential areas would see noise level increase of close to five dBA. Because noise levels would be reduced to acceptable levels with implementation of mitigation, no significant land use impact was identified. The discussion of potential impacts associated with land use incompatibility is not intended to re-state every environmental impact identified in other sections of the RDEIR. Rather, this section considers whether those identified impacts would result in some other physical change or environmental effect on adjacent land uses and populations, giving rise to a significant impact under land use thresholds.
MRWG-59	Visual effects are discussed, and significant impacts are identified, in Section 4.1 of the RDEIR. As explained in Section 4.8, an incompatibility would not

	necessarily result in a significant land use impact, particularly if the impact is based on the same environmental effects identified in other sections of the RDEIR (i.e., Aesthetics and Visual Resources). To result in a significant effect on land use, the incompatibility would need to result in some additional adverse effect, such as health risks, public safety issues, or the inability to sleep, relax, or enjoy the full use of one's property. Visual effects of the Project would not result in health risks, public safety issues, or the inability to enjoy the full use of one's property. Therefore, potential visual incompatibilities were found to have a less than significant land use impact. CEQA requires an EIR to analyze potential impacts on the existing (baseline) setting. Since the referenced resort hotel at the Trilogy/Woodlands development does not exist, it is not a part of the existing baseline. Any analysis of potential impacts on that future development (should it be constructed) would be speculative and inconsistent with the clear directives of CEQA. The referenced Strategic Growth Goal is to "preserve and enhance visitor opportunities in appropriate locations as an important part of the coastal economy by… acknowledging that visitor serving facilities have priority over… non-visitor serving commercial or industrial development". The SMR is not an appropriate location for visitor-serving opportunities and the priority for these uses would not apply to an Industrial-zoned parcel that has historically supported heavy industrial uses in the Coastal Zone.
MRWG-60	Per CEQA Guidelines Section 15064, in evaluating the significance of the environmental effects of a project, the Lead Agency shall consider direct physical changes in the environment and reasonably foreseeable indirect physical changes in the environment. Therefore, as discussed in Appendix G of the RDEIR (Preliminary Consistency Analysis), inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency (refer to the introduction to Appendix G). The methods, timing, and parties responsible for enforcing identified mitigation are identified in Chapter 8 of the RDEIR. The RDEIR has clearly identified areas where implementation of mitigation may be infeasible due to federal preemption or other constraints, and residual impact determinations have been made in consideration of implementation issues. While the RDEIR discusses potential inconsistencies with applicable planning documents, the decision of whether a proposed project is consistent with a particular plan or policy must ultimately be made by the local decision-making body. The comment has been included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.
MRWG-61	The relevant thresholds of significance for impacts on recreational resources are based on CEQA Guidelines Appendix G and the County's Environmental Checklist. The extensive recreational resources in the project vicinity are identified in Section 4.8.1.3; additional resources within the Woodlands

	development have been added to this discussion. Because the Project would not increase demand on existing recreational facilities, or affect access to existing resources, impacts under CEQA would be less than significant. Other impacts on these resources are discussed in other sections of the RDEIR, including air quality (Section 4.3, Air Quality and Greenhouse Gases), noise and vibration (Section 4.9, Noise and Vibration), light and aesthetics (Section 4.1, Aesthetics and Visual Resources), and risks to health and welfare (Section 4.3, Air Quality and Greenhouse Gases, and Section 4.7, Hazards and Hazardous Materials). Therefore, no further discussion of these impacts is necessary.
MRWG-62	The noise monitoring conducted at the Phillips site was performed by the EIR preparer as a consultant to the County. Monitoring was conducted immediately adjacent to the rail car activities in order to quantify the near-field noise levels associated with the activities. These near-field values were then scaled based on the level of activity during the monitoring and the anticipated activities that would occur during the railcar unloading (two locomotives vs. three locomotives, for example). The monitoring did not directly associate the two activities. The monitoring that was conducted in the community did not detect much rail noise, as was expected because the rail activities occurred during the daytime, which background noises are higher. However, the scaled near-field values were applied to the nighttime ambient noise levels measured in order to determine the potential noise levels at night with the rail activities. These indicated that, without mitigation, noise levels could increase substantially (> 7 dba). The noise analysis included noise from unloading pumps and equipment, and based these near-field noise levels on databases of in-field measurements. Mainline train noise levels were estimated utilizing FTA models, which conservatively estimate the noise increases associated with train activities. The EIR details these noise increases. These are the same noise models used to develop General Plans and noise elements within SLOC. Construction activities are described in Section 2.4.1, Project Description " The overall construction is anticipated to occur over a period of 9 – 10 months".
MRWG-63	Mitigation measure N-2a prohibits the use of train horns unless during an emergency. Train noise along mainline tracks was estimated using the FTA models and these results are presented in the EIR under impact N.3. Train idling, movement, pumping systems, HVAC and air compressors have all been including in the noise model used to estimate the noise levels from the proposed activities. With mitigation, impacts would be less than the thresholds.
MRWG-64	Mitigation measures would substantially reduce noise levels, as shown in Tables 4.9.10 and 4.9.11 in the Noise and Vibration Section of the EIR. The berm is not suggested as a noise mitigation measure. It is discussed as it is proposed as an aesthetic mitigation measure in Section 4.1, Aesthetics.

	Mitigation measures are required to be implemented, including noise monitoring after the installation of the rail spur during all activities, in order to ensure noise levels are below the thresholds.
MRWG-65	Mitigation measure N-2a prohibits the use of train horns unless during an emergency. This mitigation, along with all others, would be monitored by the County to ensure compliance. Mitigation measure N-2c requires a noise monitoring be done which would include the installation of continuous noise monitoring equipment, which could be reviewed for the inappropriate use of train horns.
MRWG-66	The main purpose of the "bad order track" is to hold tank cars that have crude oil that does not meet the require specifications. With regard to rail car and locomotive repairs, the SMR facilities do not have the equipment or operations to conduct major repairs to rail cars and locomotives. If a rail care or locomotive broke down and needed repair UPRR would have to move them to one of its rail yard facilities. Mitigation has been added to the FEIR to ensure that any minor car or locomotive repairs occur only during daylight hours (refer to mitigation measure N-2a), when background noise levels are higher and noise from rail spur activities has less of an impact. Note also that UPRR may do minor car and locomotive repairs along the existing siding near the SMR for any trains currently being transported by UPRR, so a degree of repairs are already a part of the baseline noise environment.
MRWG-67	Mitigation measures would be monitored by the County to ensure compliance. See Section 8.0 of the EIR for the Mitigation Monitoring Plan. Mitigation measure N-2c requires a noise monitoring be done which would include the installation of continuous noise monitoring equipment, which could be reviewed for the inappropriate use of train horns or other nighttime activities.
MRWG-68	The RDEIR analysis is based on specific thresholds of significance set out in the CEQA Guidelines and the County's Environmental Checklist. These thresholds state that a project would have a potentially significant impact on Population and Housing if it would: induce substantial population growth in the area, displace existing housing or people, or create the need for substantial new housing in the area (refer to Section 4.10.3). Project-related effects under all three thresholds were found to be less than significant and the comment does not question the analysis under these thresholds. Other effects on existing residences in the project vicinity are addressed in other sections of the RDEIR, including Land Use and Recreation (which addresses land use compatibility issues), Air Quality and Noise (which address impacts on adjacent uses associated with project emissions and noise levels), and Hazards and Hazardous Materials (which addresses safety hazards and health risks on adjacent uses as a result of the Project). These types of impacts on adjacent existing residential uses do not fit within the applicable thresholds of significance for impacts on Population and Housing; therefore, no discussion of them in that section is

	necessary. The RDEIR utilized the most recent Census data available to provide historic population/growth information (data through 2010). Pursuant to 2010 Census data, the Woodlands area included 421 total units in 2010 (see Table 4.10.2). Of course, growth has continued in the area since that time. The comment states that only approximately 200 homes had been completed in the development in 2010, and approximately 500 have been added since that time. The information related to growth since 2010, including at the relatively new Woodlands (Trilogy) development, has been added to the RDEIR.
MRWG-69	The RDEIR identified the substantial growth in the Nipomo urban area and Nipomo Mesa when compared to other areas of the County (refer to Section 4.10.1.1). Where more specific data was available (i.e., for the Nipomo Mesa area, or official Census-designated places [Callender-Garrett, Woodlands, Palo Mesa, and Black Lake]), that information was also set out in the section.
MRWG-70	The Environmental Setting section of the RDEIR does not provide an impact analysis; its purpose is only to provide information on the existing environmental baseline conditions (i.e., information on population and housing characteristics in the project vicinity at the time of preparation of the NOP for the Project). The analysis of potential impacts is provided in Section 4.10.4, Project Impacts and Mitigation Measures, and is based on identified significance criteria established by the CEQA Guidelines and the County's Environmental Checklist. Land use compatibility issues associated with the proposed Rail Spur Project are discussed in Section 4.8, Land Use and Recreation. That section discusses potential impacts associated with the proposed expansion of existing industrial activities into areas surrounding the SMR, and references the impact analysis in other sections of the EIR to provide an indication of the Rail Spur Project's compatibility with surrounding land uses (i.e., air quality effects, noise, odor, and hazards of the Project). Typical effects of impacts associated with these types of incompatibilities include health risks, public safety issues, and the inability to sleep, relax, or enjoy the full use of one's property. The discussion of potential impacts in the RDEIR is consistent with those identified in this comment.
MRWG-71	The RDEIR includes a lengthy discussion of land use impacts and potential incompatibilities in Section 4.8 of the RDEIR, Land Use and Recreation. In addition, Appendix G provides a preliminary policy consistency analysis that indentifies a number of in consistencies with County polices as it relates to land use.
MRWG-72	The issue of displacing people from homes in the event a fire along the mainline rail routes is addressed under Chapter 4.10, Population and Housing, Impact P/H.2, which explains that although the increased use of the mainline to

	transfer oil could result in increased exposure to potential hazardous substances in residential areas adjacent to the UPRR mainline route, it would not displace people or housing because the proposed use would be similar to existing uses along the mainline. Pursuant to the County's checklist and Appendix G of the CEQA Guidelines, the applicable threshold is whether the proposed project would "displace existing housing or people, requiring the construction of replacement housing elsewhere". In the event of a spill and resultant fire where housing was damaged or destroyed, potential impacts would be temporary and housing could be repaired and/or rebuilt in the same location. No replacement housing at a different location (the construction of which, in turn, could result in additional environmental effects) would be required, which is what the significance criteria is intended to address. Additional information related to potential impacts associated with hazards or transport of hazardous materials was included in Chapter 4.7, under Impact HM.2, which states that the potential for a train derailment would increase the risk to the public in the vicinity of the UPRR right-of-way. This discussion identifies a significant and unavoidable (Class I) impact associated with increased risk to the public along the mainline route in the event of a spill/fire. No permanent impacts to housing would occur above those discussed in this section relating to the increased probability of a derailment, spill, and/or fire along the mainline.
MRWG-73	Impacts related to Water Resources are addressed in Section 4.13 of the RDEIR, Water Resources. The Population and Housing section included a determination that the project would not remove any existing obstacles to growth, such as water availability in the Nipomo Mesa area, which currently serves as a constraint on growth in the area. The Project would not create additional water sources in the Nipomo Mesa area that could facilitate a higher rate of growth than would otherwise be supportable under existing water supply constraints. Therefore, no significant effect on population and housing related to the availability of additional water supplies would occur.
MRWG-74	The cumulative discussion in population and housing are based on applicable thresholds of significance identified by the CEQA Guidelines and County Environmental Checklist. Other potential impacts on adjacent residences and populations are addressed in other sections of the RDEIR (i.e., Land Use and Recreation, Air Quality, Noise, Hazards and Hazardous Materials). Because no impacts associated with the appropriate significance thresholds are identified, no further analysis or changes to the RDEIR are necessary.
MRWG-75	The RDEIR contains mitigation measures PS-3a through PS-3i (see Section 4.11, Public Services and Utilities) to ensure that the SMR Fire Brigade and the Cal Fire resource are sufficient before the project proceeds. These include; 1) an updated Fire Protection Plan for the Rail Spur Project that meets all the

	applicable requirements of API, NFPA, UFC, and Cal Fire/County Fire; 2) an updated Emergency Response Plan to include the rail unloading facilities and operations; 3) an updated Spill Prevention Control and Countermeasure Plan to include the rail unloading facilities and operations; 4) requirements that the SMR fire brigade meets all the requirements outlined in Occupational Safety and Health Administration 29 CFR 1910.156, and NFPA 600 & 1081; 5) updated fire brigade staffing/training requirements and Cal Fire funding requirements; 6) funding of a qualified Cal Fire inspector to conduct the annual fire inspections at the SMR; 7) funding of training for Cal Fire personnel, including field training, as per the Security and Emergency Response Training Center Railroad Incident Coordination and Safety (RICS) meeting Department of Homeland security, NIIMS, OSHA 29 CFR 1910.120 compliance. These extensive requirements would reduce the impacts of the rail spur project on fire resources at the SMR to less than significant with mitigation (Class II). In addition, for transportation of crude oil along the mainline tracks, mitigation measures PS-4a though PS-4c) (see Section 4.11, Public Service and Utilities) include 1) Only rail cars designed to Option 1: PHMSA and FRA Designed Tank Car shall be allowed; 2) requires annual funding for first response agencies along the mainline rail routes; 3) require annual emergency responses scenario/field based training; and 4) notification requirements. Impacts to fire protection and emergency response would remain significant and unavoidable (Class I) along the mainline routes. The Arroyo Grande EIR is being prepared in close coordination with the Cal Fire Fire Marshall to ensure that responses and training are appropriately addressed. Note that a crude oil train currently passes through SLOC weekly from San Ardo, so the risks of crude oil trains are currently present in the County. In regards to prevention as opposed to response, some of the mitigation measures, for example, the requirement to use Option 1 tank car design (PS-4b), would reduce the frequency of spills given an accident occurs, and would therefore reduce the potential for catastrophic accidents. Section 4.7, Hazards and Hazardous Materials also proposes mitigation measures, such as ensuring that the routes follow the lowest risk routes possible (HM-2b) (there are a number of different routes that could be taken by a train), and the use of positive train control (HM-2c) on all routes, would also reduce the frequency of train accidents and resulting consequences. The EIR clearly states in Section 4.11 that the fire response impacts would be significant and unavoidable (Class I) along the mainline rail routes, and that the impacts due to hazards (in Section 4.7) would also be significant and unavoidable (Class I). Both of these are conclusions based on analysis and an extensive listing of mitigation measures.

MRWG-76 and MRWG-77	The Circulation Element of the South County Area Plan lists Willow Road as an arterial road. It is also shown as an arterial road in the Circulation Element of the South County Villages Plan. Therefore, the classification of Willow Road has not been changed in the EIR.
MRWG-78	The metrics used for the on-time performance of passenger trains is directly from the Federal Railroad Administration. The actual departure time is only for the origin station, which is the station where the rail route begins. This data was used to be consistent with the requirement of the Federal Railroad Administration for determining on-time performance of passenger trains. The Federal Railroad Administration's 80% goal for on-time arrival is calculated based upon the actual departure time from the originating station. This approach was used to allow for comparison to the Federal Railroad Administration's on-time goal. As shown in Table 4.12.5 (see Section 4.12, Transportation and Circulation) the baseline on-time performance of the Coast Starlight and Pacific Surfliner at the end point has been 80 percent or greater between April 2011 and March 2014. For the Pacific Surfliner the on-time performance at all stations has been greater than 85 percent over the same period. The all station on-time performance of the Coast Starlight has been only 61.2 percent over the same period. The significance criteria used in the analysis was "decrease the performance of public rail transit facilities to less than an 80% on-time performance at the end station, which is the acceptable level of service established by the Federal Railroad Administration for Amtrak trains." (see Section 4.12.3). As discuss in the RDEIR, the FRA quarterly reports show that for the period between April 2011 and March 2014 that about 20% of the delay minutes for the Pacific Surliner were on UPRR track. The remaining 80% occurred on BNSF, SCRRA, and SDNRR track (21% was on SCRRA track in Los Angeles, 29% was on BNSF track in Los Angeles/Orange Counties, and 30% was on SDNRR track in San Diego). As can be seen in Figure 4.12-4 50% of the track miles for the Pacific Surfliner are on UPRR track, 27% are on SCRRA track, 6% is on BNSF track, and 17% is on SDNRR track. This data would tend to indicate that travel on the UPRR mainline track is not the major cause of delay for the Pacific Surfliner, which is the track that would be used to deliver crude to the SMR. A conservative assumption would be to assume that the addition of the crude oil unit train to this portion of the Coast Line would double the delay times associated with FTI, RTE, and DSR for the Coast Starlight on this section of the route. Based upon this assumption, the delay minutes would increase from about 0.5% to 1% for the entire Coast Starlight route between San Diego and San Luis Obispo based upon the delay minutes provided by the FRA in the quarterly Amtrak performance reports. An analysis of the FRA quarterly Amtrak performance reports from April 2011

	through March 2014 for the Pacific Surfliner shows that increasing delay minutes typically results in a decrease in the OTP at the train endpoint. While the data is not linear, in the vicinity of the average for the period stated above, an increase of 102 delay minutes per 10,000 train miles would decrease the OTP at the end station by about 1%. A 0.5% increase in delay minutes due to the crude oil trains would increase the average delay minutes per 10,000 train miles by about 26 minutes, which is small enough that it would not be expected to affect the end point OTP of the Pacific Surfliner.
MRWG-79	The use of hand thrown switches by itself is not a significant impact. The issue would be how the use of these switches affects on time performance of passenger trains. The RDEIR found that the addition of one crude oil unit train per day would not result in a significant impact to passenger train on-time performance. Therefore, mitigation is not required.
MRWG-80 through MRWG-82	The time for a unit train to make a full round trip between Canada and the SMR including loading and unloading time is estimated to be about four days. This means that three unit trains would need to be dedicated to the SMR rail service in order to allow for five train deliveries per week. In discussions with Phillips 66 and UPRR the delivery of unit trains would be spaced out over the week, and under normal operations two trains would not be expected to be at the SMR at one time. It is possible that due to bad weather or other mainline rail issues, that a train could be delayed, which could result in a second train arriving at the SMR while another one is at the site unloading. However, this would not occur on a regular basis, and would be an infrequent event. The example in the comment would have four trains, which is more than is needed for the project. Given that three trains would need to be dedicated to the project, it is highly unlikely that all three trains would arrive at the SMR on the same day. The analysis in Section 4.12, Traffic and Transportation, was based upon two at grade crossings per peak hour (one in the AM and one in the PM), which is a reasonable worst case assuming 250 trains per year under normal operations. The intersection discussion focuses on the long-term impacts to at grade intersections and therefore, was based upon the normal operations of the unit trains. For these reasons, no change has been made to the at grade crossing intersection impact classification.
MRWG-83	The statement that the RDEIR claims there will be no dust impact is inaccurate. Section 9.4.9.2 (see Chapter 9.0, Vertical Coastal Access Assessment) states the existing emissions would just be shifted south from the Pier Avenue entrance to the new SMR coastal access road. This shift in vehicles to the south could increase the level of off-road vehicle (ORV) activity in the southern part of the ODSVRA thereby increasing PM_{10} emissions in this part of the ODSVRA. PM_{10} emissions could also be increased from travel on the new coastal access road. While the road would be paved, sand tracked onto the road could increase the level of PM_{10} emissions in the area around the refinery. While the overall level of PM_{10} emissions from the area around the ODSVRA would not be

	expected to increase over the current levels, there is the potential for an increase in localized impacts in the area of the SMR. The trips identified in the Condor study are currently using the Pier Avenue entrance, so the emissions are already occurring. However, as discussed above, the emissions would be shifted south by about six miles, which would shift some of the air impacts to the area around the SMR. The County Public Works classifies Willow Road as an arterial roadway. The Circulation Element of the South County Area Plan lists Willow Road as an arterial road. It is also shown as an arterial road in the Circulation Element of the South County Villages Plan. Therefore, the classification of Willow Road has not been changed in the EIR.
MRWG-84	This comment does not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The majority of the comment just states information that is contained in the RDEIR regarding the various alternatives. The commenter's statement about if three trains per week is approved that Phillips 66 would request and increase at some point in the future is included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.
MRWG-85	This comment lists a number of the mitigation measures that the County would have to monitor if the Rail Spur Project was approved. Mitigation measure EM-1 (see Section 4.0, Environmental Analysis) requires that Phillips 66 fund all the County monitoring activities associated with the Rail Spur Project. The County would likely hire additional staff or consultants to handle the work load that would be associated with permit compliance monitoring and enforcement for the Rail Spur Project. This is what has been done on other large projects such as the solar projects, the Avila Beach remediation project, and the Guadalupe restoration project.
MRWG-86	The Executive Summary clearly states on the first page that the reader should not rely exclusively on the Executive Summary as the sole basis for judgment of the Projects. Specifically, the EIR should be consulted for information about the environmental effects associated with the Projects and potential mitigation measures to address or minimize those effects. The Executive Summary focuses on the key impacts and mitigation measures and clearly states all of the significant and unavoidable (Class I) impacts identified for the Rail Spur Project. In addition, the Executive Summary provides a set of impact summary tables that list all of the identified impacts by classification and their associated mitigation measures. Section 15123 of the CEQA Guidelines state that (a) An EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical. (b) The

	summary shall identify: (1) Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) Areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects. The Executive Summary in the RDEIR meets all of these CEQA requirements. Therefore, the Executive Summary does not need to be rewritten, but has been modified as part of the development of the Final EIR.
MRWG-87	Operations at the Rodeo Refinery are not anticipated to change with the processing of Rail Spur Project crude oil. The refinery currently handles heavy crude oil and the characteristics of the Rail Spur Project crude oil are similar to current heavy crude oils. Section 4.3, Table 4.3.13 summarizes the different characteristics of the crude oils. BTEX levels may increase (although some tar sands crude oils have lower percentages of BTEX than the heavy crudes currently being processed; see response to comment CBE-21), but the health risk analysis of the increased BTEX levels conducted for the EIR indicates that increases in health risk would be nominal (see section 4.3, impact AQ.4). The refining of the different crude slate associated with this project would not produce different GHG emissions at the SMR than the normal range of crude oils refined at the SMR. GHG emissions are attributable to removal of the heavier ends, such as at the SMR, and associated with the cracking and formulation of lighter ends, such as gasoline, at the Rodeo Refinery. These activities would be within the range of normal activities at each refinery. The main difference in GHG emissions occurs at the extraction point, where extracting the tar sands generally produces substantially higher GHG per bbl of crude oil than conventional methods, depending on the level of associated gas and the use of that gas. Modifications to the Rodeo Refinery are not associated with, and independent from, the SMR Rail Spur project. The Rodeo Propane Recovery Projects purpose is to increase the efficiency of propane removal from primarily the refinery fuel gas. Propane levels in dilbit are very small and would not contribute to the propane recovery activities associated with the SFR propane project. See Responses to CBE-84, CBE-85, and CEB-111 regarding increased amounts of propane and butane.