From: Paul Rea <paulrea@sbcglobal.net>
To: p66-railspur-comments@co.slo.ca.us
Date: 11/17/2014 11:36 AM
Subject: Time to Protect Our Towns, Reject Oil Train Expansion

Dear San Luis Obispo County Commissioners and Supervisors,

I urge you to deny the proposed oil-by-rail project at the Phillips 66 Santa Maria Refinery. Bringing tar sands to California will undermine our state's efforts to be a global leader addressing climate change, and these trains will put our communities directly in harm's way. REP-01

This project must be opposed for several reasons:

1. Emergency responders in my town just aren't prepared for these heavy, dangerous trains and current safety standards won't protect the public. The draft EIR misinforms first responders because it doesn't adequately assess the risks of an oil train disaster; the draft only evaluates rail-accident rates from 2003 to 2012 and spill rates between 2005 and 2009, omitting crucial data about accident frequency and magnitude in 2013 and 2014. This is troubling because we know that more crude spilled from trains in 2013 than during the past four decades combined. The EIR must look at recent data, which reflects the increased quantities of crude being transported in old and unsafe tank cars. REP-02

2. The EIR's worst-case scenario estimates a spill of 180,000 gallons, or roughly six tank cars of crude. This has to be an error because most crude trains have 100 or more tank cars, carrying millions of gallons. Such a spill could devastate our scarce water resources, sensitive ecosystems, homes and local economies. REP-03

3. The toxic air emissions that will accompany this project pose an unacceptable risk to public health. In its latest environmental review Phillips 66 admits that its proposed oil train facility will create "significant and unavoidable" levels of air pollution along the rail route, with sulfur dioxide and other toxic chemicals leaked that increase risk of cancer, heart disease, respiratory disease and premature death. REP-04

4. The EIR has yet to fully analyze the worst-case scenario of a spill near each of the many watersheds crossed en route to the Santa Maria refinery.
The proposed route brings oil trains through the San Francisco Bay-Delta watershed and along California's central coast. A derailment near a river, stream, reservoir or aquifer could contaminate drinking water for millions of Californians, an unacceptable risk in this time of extreme drought. REP-05

5. The planning department must examine the cumulative impacts of the Santa Maria and Rodeo proposals as a single project -- not in isolation -- since the proposed terminal in Santa Maria is directly linked by pipeline to the Phillips 66 refinery in Rodeo. Phillips 66 is proposing to modify both facilities to allow it to refine the most toxic crude oil on Earth:
Canadian tar sands. REP-06

6. Phillips 66 must disclose crude-quality information so decision-makers fully understand the climate impacts of the proposed rail project. At every stage of the mining, transportation and refining process, Canadian tar sands are more carbon intensive than any other source of oil -- making this project simply incompatible with California's plans to be a climate leader. REP-07

For all these reasons, I urge the San Luis Obispo County Planning Commission and Board of Supervisors to soundly reject the Phillips 66 proposed rail spur. REP-08

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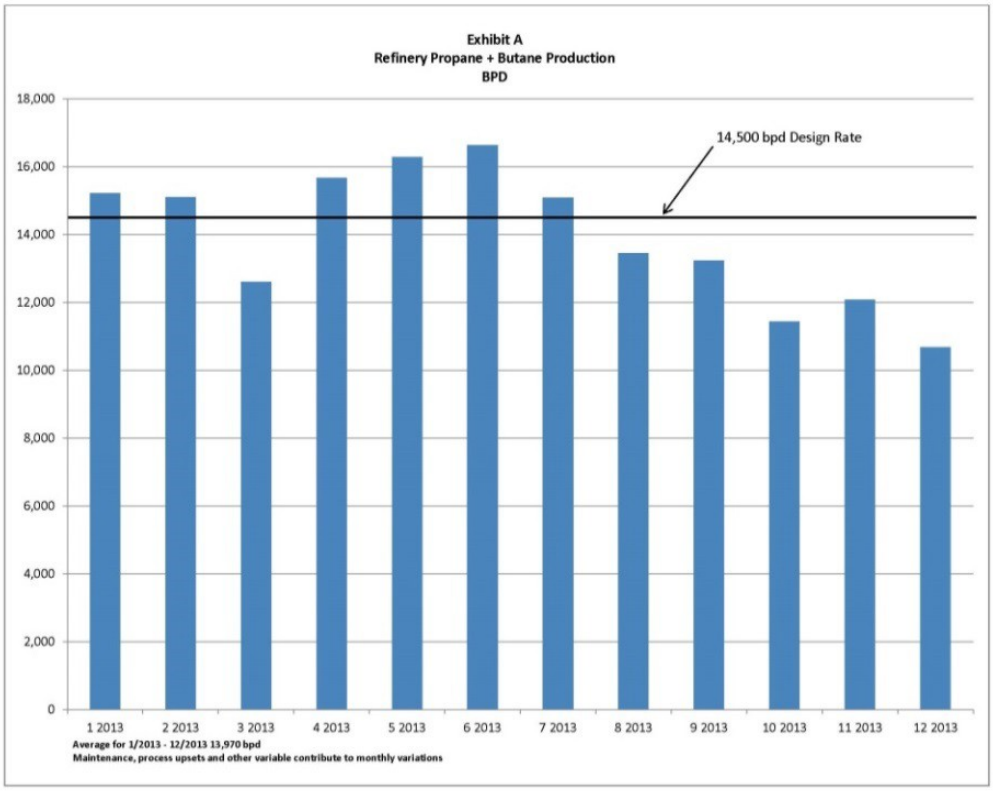
Responses to Paul Rea Comments

REP-01	The main difference in GHG emissions occurs at the extraction point, where extracting the tar sands generally produces higher GHG per bbl of crude oil than convention methods, depending on the level of associated gas and the use of that gas. Some fields in California for example, extract the crude oil and just burn the associated gas in flares, which actually can produce a higher GHG intensity than even Canadian Tar Sands crude oils. Current CARB requirements (LCFS) already require refineries to disclose the carbon intensities of the crude oil they refine.
REP-02	Rail accident data on a per mile basis has not change appreciably between 2012 and 2014. The increase in accidents is due primarily to the substantial increase in number of crude oil trains, not the accident rate of accidents per mile traveled. The EIR concludes that accident risk would be a significant and unavoidable impact and that substantial increases in response capabilities are needed along rail routes.
REP-03	In the event of a train derailment and accident, only a limited number of rail cars actually derail and spill oil. In no case has a rail accident resulted in all rail cars derailing and failing. The median number of cars derailed per FRA-reportable, freight-train derailment on Class I mainlines was six (Liu et al., 2013). In this analysis, we assumed that all derailed cars were crude oil tank cars. The conditional probability of release (CPR) represents tank car safety performance in accidents and was estimated based on the latest statistics developed by the Railway Supply Institute (RSI) – Association of American Railroads (AAR) Railroad Tank Car Safety Research and Test Project. The RSI-AAR Tank Car Project analysis accounts for tank car safety design features and accident characteristics. The RSI-AAR Project has also calculated a similar statistic, CPR(>100), which is the conditional probability of release of more than 100 gallons from an individual tank car involved in an FRA-reportable accident. Releases smaller than this amount are not believed to pose a substantial threat, so this is the principal metric being used by the rail and tank car industries in their consideration of different tank car safety designs. CPR(>100) is used in the risk analysis described here to be consistent with other documents related to this subject. Please note that trains associated with the Phillips 66 Project would generally have 80 tank cars due based on the space available for the new rail spur.
REP-04	The RDEIR addresses the potential impacts and recommends mitigation measures for the proposed Project consistent with the requirements of CEQA. Section 4.3 (Air Quality and Greenhouse Gases) addresses GHG emissions, criteria air emissions and health risks. The commenter's statement about air issues are included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project. The EIR concludes that emissions of criteria, GHG and toxic pollutants would exceed the SLOCAPCD thresholds and would be a significant impact.
REP-05	Potential worst-case water quality impacts related to a rail accident has been addressed in Impact WR.3. Individual waterways that could be affected are shown on Figures 4.13-4 through 4.13-9 and in Tables 4.13-1 and 4.13-2. This includes the San Francisco Bay-Delta watershed and waterways along the

	central coast. Water quality impacts from a spill along the mainline rail were concluded to be significant and unavoidable (Class I).
REP-06	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 summaries 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. The SMR refinery ships naphtha and gas oils via pipeline to the Rodeo Refinery. Both of these are semi-refined products. The composition of these two products is not expected to change with the Rail Spur Project. As discussed in the Project Description (Chapter 2.0) the SMR currently processes a range of crude oils from different sources, and the crudes vary from time to time. In addition, the refinery often blends crudes from multiple sources prior to processing. A comparison of crude oils and their characteristics demonstrates that the crudes likely to be received by unit train would be comparable to those currently or recently processed at the SMR. The SMR is not requesting any changes or modifications to its crude unit or other processing units that would allow it to process any crude types that it can't be process currently. The only proposed change to the Rodeo Refinery is the Propane Recovery Project. The Rodeo Refinery (SFR) produces gases as a byproduct of the refining process, and these gases are used as fuel in various refinery processes (referred to as "refinery fuel gas" or "RFG"). Currently, the propane and part of the butane generated at the SFR is used as RFG. Instead of using the propane and butane as fuel at the SFR, the Propane Recovery Project will allow Phillips 66 to recover, store, and ship propane and additional butane via rail to outside customers. Therefore, the primary project objective is to recover liquid petroleum gases ("LPGs" *i.e.*, propane and butane) that already exist in the RFG. The Propane Recovery Project will not cause or require an increase in the amount of recoverable LPG present in the RFG; it will simply allow recovery of the LPGs that already are present in the RFG. The Propane Recovery Project is designed to remove up to 14,500 barrels of LPGs per day. Data regarding actual LPG content of the RFG is consistent with the design basis for the project. The figure below shows that, for the twelve month period from January through December 2013, the average LPGs in the Rodeo RFG was 13,970 barrels per day. The equipment design is a limiting factor on the amount of propane and butane that can be captured and stored, regardless of how much propane and butane can be produced by the SFR in the future or what type of crude oil is processed. Phillips 66 specified this design basis in the application to the Bay Area Air Quality Management District for an authority to construct the Propane Recovery Project, and it has been translated into an enforceable condition included in the draft permit prepared by the air district. Therefore, the amount of propane and butane to be extracted once the Propane Recovery Project is

operational will be constrained by the physical design of the equipment and the permit limits.

Most of the LPG produced at the SFR does not arrive as propane and butane in crude oil or in the semi-refined products received from the Santa Maria Refinery (SMR). Rather, the vast majority of LPG produced at the SFR is created through the refining process itself. As explained above, the design capacity of the Rodeo Propane Recovery Project was sized to recover LPGs that are currently being produced and burned as part of the refinery fuel gas at the SFR. No changes in the crude delivery system, type of crude or operations at the SMR are needed in order to fully utilize the propane recovery unit in Rodeo.



The commenter's have overlooked the fact that the refining process at the SFR itself accounts for 90% of the propane and butane currently produced and proposed to be recovered by the Rodeo Propane Recovery Project. As described at pages 3-8 to 3-9 of the Recirculated Draft Environmental Impact Report for the Propane Recovery Project, the refining process incorporates four primary functions: separation, conversion, purification and blending. Crude oil and other incoming feed streams contain mixtures of various hydrocarbon compounds that can be separated using distillation and fractionation in the first step of the refining process. At the SFR, a small amount of butane and propane is separated from the crude oil in these first stage processes. However, butane and propane are also created from other hydrocarbon compounds during the conversion phase of the refining process.

	Overall approximately ten percent of the LPG (combined butane and propane) arrives as identifiable fractions of the crude oil, and the balance of approximately ninety percent is created in the refining processes (cracking units). Since LPG in the crude oil accounts for only a very small fraction (approximately ten percent) of the total LPG produced at the SFR, a change in crude oil LPG content in Santa Maria or in Rodeo would have very little effect on the volume of LPG available for recovery at Rodeo. As discussed in the Recirculated Draft Environmental Impact Report for the Propane Recovery Project Section 3.4.2.1, and shown in Figure 3-7, the proposed Project's design basis was derived from data taken at the Refinery in August, 2011. In the same section, the RDEIR for the Propane Recovery Project also provides an update to substantiate this 2011 design basis with the most recent full year (2013) of RFG data from the Refinery in Figure 3-8. This figure shows that for 2013 an average of 13,970 barrels per day (BPD) of propane and butane were available and that monthly this quantity of propane and butane varies. Note that between the 2011 design basis and the 2013 data, no change to crude feedstock, such as those of concern to commenter's, had been made. These data provide the substantial evidence to support the "independent utility" of this Project and further support that the EIR has not inappropriately piecemealed or segmented this Project.
REP-07	The main difference in GHG emissions occurs at the extraction point, where extracting the tar sands generally produces higher GHG per bbl of crude oil than convention methods, depending on the level of associated gas and the use of that gas. Some fields in California for example, extract the crude oil and just burn the associated gas in flares, which actually can produce a higher GHG intensity than even Canadian Tar Sands crude oils. Current CARB requirements (LCFS) already require refineries to disclose the carbon intensities of the crude oil they refine.
REP-08	This comment does not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. No further response is required.