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To: p66-railspur-comments@co.slo.ca.us
Date: 11/22/2014 03:53 PM
Subject: Please reject the Phillips 66 oil train proposal

Mr. Murry Wilson
San Luis Obispo County Planning Department

Dear San Luis Obispo decision-makers,

The recent history of oil train derailings and the enormous damage this poses to surrounding communities, plus the fact that I live near a major railroad branch, causes me to beg you not to put my community and countless other CA communities at risk with the Phillips 66 project.

The draft EIR's analysis of potential accidents and spills is flawed because it only evaluates rail accident rates from 2003 to 2012 and spill release rates between 2005 and 2009, while more crude oil has spilled from trains in 2013 than during the past four decades. They're cherry-picking the data, here. A valid EIR must look at recent data, including accident data from Canada which has also experienced increased crude by rail incidents. This data reflects the increased quantities of dangerous crude being transported in old and unsafe tank cars and will provide a more accurate assessment of accident risk and magnitude along the rail lines that would serve this project. JLO-01

Moreover, the EIR's worst case scenario spill analysis estimates a spill of approximately 180,000 gallons, or approximately six tank cars of crude.
Most crude trains are comprised of 100 or more tank cars. A true worst case scenario spill would be on the order of millions of gallons of crude. Such a spill could devastate our scarce water resources, property and local economies, and would pose a significant threat to public health and safety.
This project cannot be approved without analyzing and mitigating its true impacts.

Phillips 66 admits that its proposed oil train facility will create “significant and unavoidable” levels of air pollution, and as far as I can tell, there is no arguable benefit to the residents of California in transporting dirty Canadian tar sands oil to refineries (more pollution for us) to be shipped overseas. Even without devastating spills and crashes, how would it serve us to further pollute our air, water and soil simply for short-term oil company profits? JLO-02

Plus, there's the toxic spill threat to the many watersheds crossed en route to the Santa Maria refinery. The proposed rail route brings oil trains through the San Francisco Bay-Delta watershed and along California’s treasured central coast. Each oil train carries more than three million gallons of explosive, toxic crude oil. A derailment near a river, stream, reservoir, or above a groundwater aquifer could contaminate drinking water for millions of Californians. During a time of JLO-03

extreme drought, SLO must not approve this project and create contamination risk for the rest of our state. JLO-03 cont

Please act in the interest of all Californians and reject the Phillips 66 proposed rail spur. This project would create significant, unavoidable, and unnecessary risks for our communities and our climate. JLO-04

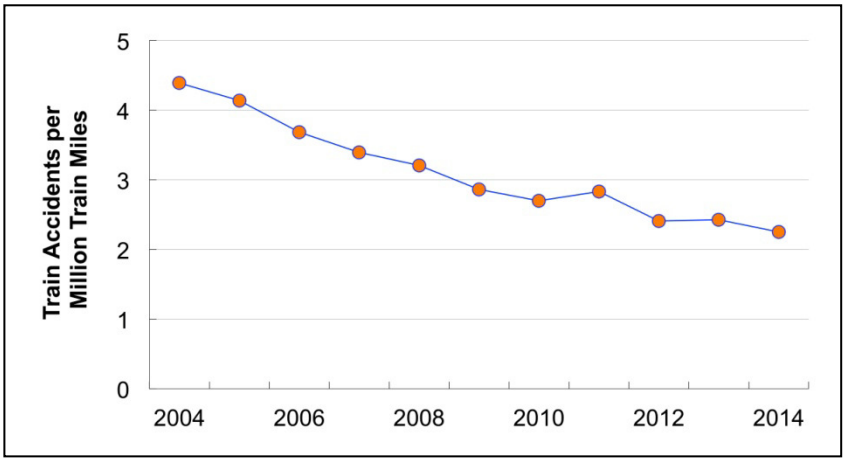
Thank you for acting on behalf of the people of California rather than the folks who run Phillips Petroleum.

Respectfully yours,

JLO-01	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. 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. 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.
JLO-02	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. As described in section 2, Project Description, the crude oil would be partially refined at the SMR and then refined into gasoline and other end products at the Rodeo Refinery in the Bay area for use by California. 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.

JLO-03	Potential impacts to the state's watersheds were addressed in Section 4.12.4, Water Resources of the RDEIR. The RDEIR found that the risk of a crude oil train accident and spill into watersheds along the rail line was considered a Significant and Unavoidable (Class I) impact.
JLO-04	This comment does not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The commenter's concerns about hazards and climate are included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.