

From: Dave Hart <davehart@dcn.davis.ca.us>
To: Phillips 66 Oil By Rail Project
<P66-railspur-comments@co.slo.ca.us>
Date: 11/23/2014 10:26 PM
Subject: Phillips 66 Rail Spur Extension Project

Please see my attached letter regarding the Phillips 66 project. Also, I understand there is another, separate project that would run oil via rail north because the Santa Maria facility is only providing part of the refining necessary. If that is the case, it is really a single, much larger, project under the guise of a separate one and that would betray a very underhanded and deceitful approach. That in itself should be a reason to reject this project. Thanks for taking my comments.

HAD-01

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Dave Hart, Davis, CA 95618(See attached file: SLO Board of Supv. Letter on Oil Trains.docx)

November 23, 2014

Murry Wilson
SLO County Dept. of Planning and Building
976, Osos Street, Room 200
San Luis Obispo, 93408
P66-railspur-comments@co.slo.ca.us

Dear Mr. Murry Wilson,

Thank you for adding my comments to the public record on the Phillips 66 Railspur Project.

My name is Dave Hart. I am a 37-year resident of Davis, California, and the proposed 80-car crude-oil train headed to the Santa Maria refinery 5 days a week will travel through Davis. I am concerned about this project for a number of reasons.

First, I am most immediately concerned with the very poor record of rail safety as outlined by the California Public Utilities Commission as reported for the latest year on their public website <http://www.cpuc.ca.gov/PUC/safety/Rail/Railroad/railroadsafety.htm>. The record indicates that the rail industry is dangerous to begin with without the addition of dangerous oil payloads as measured by derailments large and small and as measured by injuries to rail workers and the public. Adding the element of 80 to 100-car trains carrying volatile and flammable materials seems like folly.

HAD-02

The CPUC as I am sure you are also aware has identified several particularly hazardous stretches of rail (Local Safety Hazards) in California as a result of the catastrophic derailment near Dunsmuir in 1993. One of these appears to be in the vicinity of the city of San Luis Obispo near or surround the campus there. This stretch of rail would be used for shipments coming from the north through my city of Davis. I don't want to think that either you or our area sat on our hands and didn't do everything we could do to stop this if an accident were ever to occur.

HAD-03

Beyond the basic issue of rail safety is the need for additional oil refinery capacity and facilities when balanced against the tangible negative impacts that include:

- The cumulative effects of the train itself. We here in Davis are looking at two 80 to 100-car trains a day if the Benicia Valero project moves forward. That is a lot of air pollution and railroad rights of way are notoriously polluted. The source of this oil is tar sands extraction and that is an entirely new and unacceptable technology that is damaging to the environment on a stand-alone basis regardless of climate change issues.
- At some point, someone somewhere will have to be the first to say "We are not going to be part of adding more carbon into the atmosphere. If that means more expensive fuel, then so be it. But, collectively, we cannot continue to act as if there is no cost to the climate. The time to say "NO" has arrived and I hope you can be clear about the wisdom of that.
- On top of that, this oil is destined for export and doesn't even meet the needs of California or U.S. residents. Why, I ask, would we subject ourselves to this level and type of risk when literally nobody in our localities benefits from this? The few refinery

HAD-04

jobs are not enough to justify the damage to the environment of the high sulfur tar sands oil or the impact of a large rail accident like that in Quebec last year.

HAD-04
cont

I understand there will be some marginal increase in the number of well-paying jobs and those kinds of jobs often appear on the surface to be great for the economy. However, I am skeptical that the increased revenue to the local economy from those jobs is capable of offsetting the costs that could result from even relatively small accident or releases of toxic fumes (as happened in Richmond a couple years ago) let alone a large accident. Any such analysis is deceitful if it does not include a full assessment of liability and all the financial and social costs of all accidents, large and small that are part and parcel of running this type of industry.

HAD-05

In summary: I am looking to the county of San Luis Obispo and the various municipalities along the rail lines that lead to facilities owned by Phillips 66 and Valero to start drawing the line on moving away from an oil-based future. Stopping this specific project I believe will position your community and others that are the target of these projects in a way that draw the line on what is acceptable industrial activity not just for oil but possibly others as well. The natural beauty of your county will always make it a desirable place for businesses to operate. You already have the kind of leverage to create good jobs AND protect the citizens.

HAD-06

Thank you for your attention to this important matter,

Sincerely,

Dave Hart
3010 Bryant Place
Davis, CA 95618

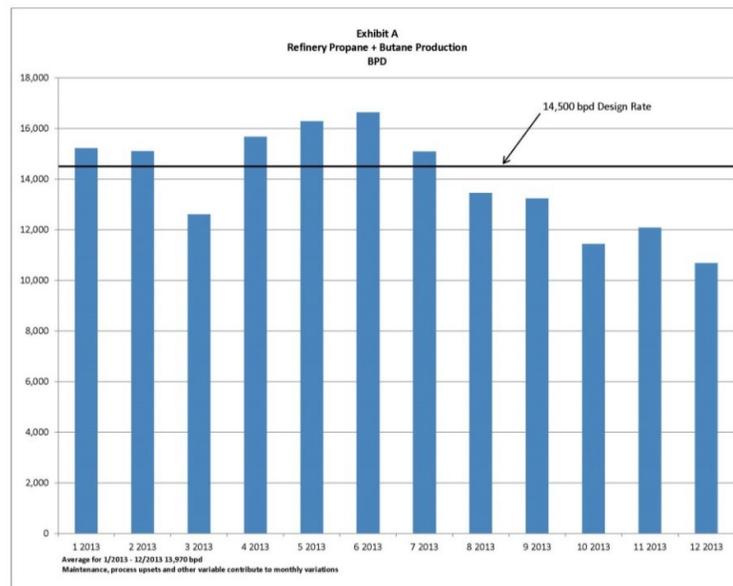
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HAD-01	<p>No other project that the preparers are aware of would run oil by rail north from The SMR by rail. However, the commenter may be describing the transportation semi-refined products (gas oils and naphtha) that is shipped via pipeline north to the Rodeo Refinery. 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. 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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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

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	<p>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).</p> <p>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.</p> <p>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.</p>
HAD-02	<p>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.</p> <p>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</p>

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35% lower than the five-year period from 2010-2014.

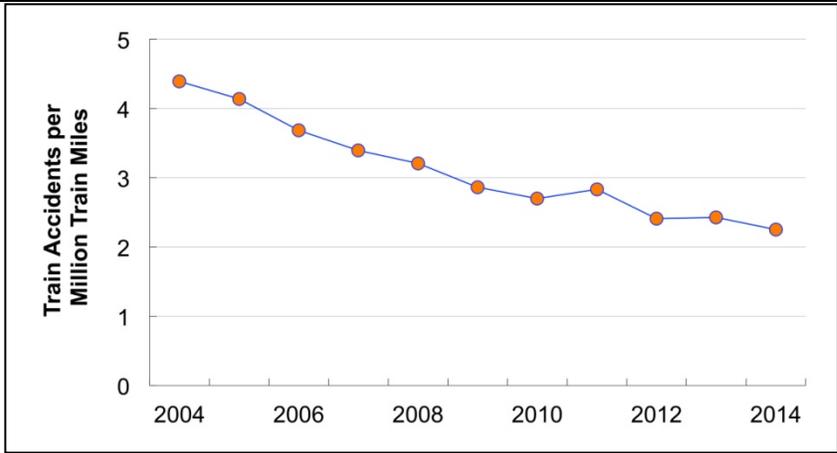
The reason data from 2005-2009 was used is because that dataset contained additional information that allowed for the estimated effect of FRA Track Class, Traffic Density and Method of Operation (Signaled or Unsignaled) on derailment rate. This additional granularity is needed for more precise segment-specific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

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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 RDEIR analysis is also in full agreement with this comment regarding the probability of future oil spills that would be associated with increased crude oil rail shipments. The RDEIR found that the risk of a crude oil train accident and spill was a significant and unavoidable (Class I) impact.

HAD-03

The local safety hazard areas are discussed in Section 4.7, Hazards and Hazardous Materials. In San Luis Obispo County, the local safety hazard area is Cuesta Grade. 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

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	<p>locomotives would help to assure that the train can safely traverse the Cuesta Grade. Use of these additional trains is part of the Project Description (see Chapter 2.0)</p>
HAD-04	<p>The EIR address the cumulative impacts of multiple crude by rail projects. Table 3.1 (Chapter 3.0, Cumulative Projects) lists all of the crude by rail projects included in the cumulative analysis. This list includes the Benicia Valero Project. The cumulative air impacts are discussed in Section 4.3, Air Quality and Greenhouse Gases.</p> <p>None of the crude that would be delivered to the SMR via rail would be exported. All of the crude would be processed at the refinery.</p> <p>The remainder of the comment does not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The commenter's concerns about carbon emissions and climate change are included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.</p>
HAD-05	<p>These comments do not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The commenter's concerns about the trade off in jobs vs. environmental impacts are included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.</p>
HAD-06	<p>These comments do not identify a specific environmental analysis or CEQA issue relative to the EIR and compliance with CEQA. The commenter's statements about moving away from oil-based fuels as a reason for denial of the project are included in the FEIR for the decision-makers' consideration as part of the County's deliberations on the proposed project.</p>