

To: p66-railspur-comments@co.slo.ca.us
Date: 11/21/2014 03:28 PM
Subject: Possible Unidentified Impact in REIR for Phillips 66 Rail
Terminal Project

Dear Mr. Wilson:

I am concerned about a possible hazardous material impact from the Phillips 66 Rail Spur project that does not appear to be discussed in the October 2014 REIR for the project.

Should the rail spur project be built, Phillips 66 has indicated that it would refine much heavier crude oil than it refines currently. This heavier crude oil has much higher concentrations of sulfur, copper, nickel, lead, benzene, and organic nitrogen compounds than are found in conventional crude oil. The listed compounds potentially threaten the health of residents of San Luis Obispo County as well as of wildlife and habitats in the area near the refinery.

I would like the Planning Department and its consultants to study this item further and include in the REIR:

1. identification of potentially toxic compounds found in the heavier crude oil
2. listing of the byproducts that would result from refinery operations and the form of the byproducts
3. the likelihood that these (toxic) compounds would leach into groundwater and what the subsequent consequences/impacts would be to humans, wildlife, and habitats
4. the likelihood that these (toxic) compounds would be contained in the petcoke (or other byproducts) produced at the refinery with the result that particulates from the petcoke mounds would not only impact air quality negatively but would also result in inhalation of toxic chemicals by nearby residents

Thank you for your consideration.

Sincerely,

Judy Lang
San Luis Obispo City and County Resident

LAJ-01

Responses to Judy Lang Comments

LAJ-01	<p>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.</p> <p>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 states " 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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Responses to Judy Lang Comments

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 are primarily associated with natural crustal particulates.

Section 4.13, Water Resources, of the RDEIR evaluated the potential impacts of the project on groundwater quality and found that potential impacts at the refinery site were considered less than significant.