Comment

I urge the San Luis Obispo County Planning Commission and Board of Supervisors to reject the Phillips 66 proposed oil by rail project at the Santa Maria refinery. This project creates significant, unavoidable, and unnecessary risks for our kids, communities and climate. The final Environmental Impact Report (EIR) must disclose the full climate impacts of the proposed rail project, including the likelihood that it will increase the transport and burning of toxic tar sands oil. Tar sands oil means more carbon pollution. At every stage of the mining, transportation, and refining process, Canadian tar sands are more carbon intensive than any other source of oil. Bringing tar sands to California will undermine the state's efforts to be a global leader addressing climate disruption. The toxic air emissions resulting from this proposed project pose an unacceptable risk to public health. Volatile toxic chemicals leak out of tank cars into the air poisoning communities along rail routes. Phillips 66 admits that its proposed oil train facility will create "significant and unavoidable" levels of air pollution, including toxic sulfur dioxide and cancer-causing chemicals. The EIR must fully analyze the potential worst-case scenario of a spill near each of 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 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 extreme drought, San Luis Obispo County must not approve this project and create contamination risk for the rest of our state. Please protect California families and children by rejecting Phillips 66's toxic oil train plan. Thank you for consideration of these comments.

Response

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 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. The EIR also addressed the issue of increase GHG emissions from processing Canadian crude at the SMR.

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 additional GHG emissions associated with mining the tar sands, such as steaming or excavations, would occur no matter the destination of the crude oil, whether the crude oil is destined for the SMR, or other locations within the U.S. or world-wide, as is acknowledged in the Keystone Pipeline EIR " The proposed [Keystone Pipeline] Project is not likely to impact the amount of crude oil produced from the oil sands" (Keystone Final EIS, page ES-15) indicating that the crude oil would be produced and refined even without the new pipeline system or the elimination of California refineries to process the crude oil.

Refineries are equipped to handle a specific type of crude oil, generally a refinery equipped to handle a heavy crude oil could not switch to a lighter crude oil and efficiently and economically conduct refining. Switching amongst heavy crudes would not substantially change the GHG emissions from a refinery. NETL (2009) conducted studies on a range of crude oils for a wheel-to-tank and wheel-to-wheel GHG lifecycle analysis associated with the Keystone Pipeline FEIS. The majority of differences between tar sands and other heavy crude oils was the Raw Material Acquisition (mining and extraction) stage of the lifecycle process, where the raw material acquisition GHG intensity ranged from 14 to 128 kg CO2e per bbl crude oil acquired, with Canadian Tar Sand at the upper end with 111. Conventional Canadian crude produced 36 kg and the US average produced 24 kg. This is in contrast to the refining stage of the lifecycle process which, between heavier crude oils, was similar.

The EIR conducted a detailed health risk assessment for the SMR operations as well as for the trains traveling along the mainline rail routes. The EIR concludes that diesel emissions from locomotives could produce significant and unavoidable cancer risks to the community. 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.

Potential worst-case water quality impacts related to a rail accident and subsequent oil spill has been addressed in Impact WR.3 (See Section 3.13). 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. Water quality impacts were concluded to be significant and unavoidable (Class I).