

From: "danmberman@gmail.com" <danmberman@gmail.com>
To: p66-railspur-comments@co.slo.ca.us
Date: 11/23/2014 11:12 AM
Subject: Reject the Phillips 66 oil train proposal

Mr. Murry Wilson
San Luis Obispo County Planning Department

Dear San Luis Obispo decision-makers,

I am writing to express deep concern about the proposed oil by rail project at the Phillips 66 Santa Maria Refinery. The Phillips 66 project puts communities throughout California at risk. This project presents significant and unacceptable risks to our communities across California.

First and foremost, emergency responders are not prepared for these heavy, dangerous trains and current safety standards will not protect the public. The recirculated draft EIR dangerously misinforms first responders because it does not adequately assess the risks of an oil train disaster.

In addition I think it is very important to back the demands of railroad unions to make sure that there are at least TWO engineers and other staffers on each train. Below is a piece from LABOR NOTES on this issue.

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, and omits important data about crude rail accident frequency and magnitude in 2013 and 2014. This is troubling because we know that more crude spilled from trains in 2013 than spilled during the past four decades. The 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.

BED-01

Moreover, the EIR's worst case scenario spill analysis estimates a spill of approximately 180,000 gallons, that's approximately six tank cars of crude. This must be an error because we know that most crude trains are comprised of 100 or more tank cars. Indeed, a 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 our local economy, and would pose a significant threat to public health and safety. This project cannot be approved without analyzing and mitigating its true impacts.

Second, the toxic air emissions resulting from this problem pose an unacceptable risk to public health. The Phillips 66 project will create unacceptable levels of toxic air emissions that will impact my community. Volatile toxic chemicals leak out of tank cars into the air poisoning communities along rail routes. In its latest environmental review 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 report cites increased health risks -- particularly for children and the elderly -- of cancer, heart disease, respiratory disease, and premature death.

BED-02

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

BED-03

Fourth, the planning department must examine the Santa Maria and Rodeo proposals as a single project. It is clear that Phillips 66 wants to bring toxic Canadian tar sands to California. The proposed oil train terminal in Santa Maria is linked by pipeline to the Phillips 66 refinery in Rodeo, CA. Phillips 66 is proposing to modify these facilities to allow it to refine the most toxic crude oil on Earth: Canadian tar sands. Transporting and refining tar sands will create more toxic air and water pollution for families along the rail line and near the Santa Maria refinery. San Luis Obispo cannot approve this project in isolation.

BED-04

Fifth, Phillips 66 must disclose crude quality information in order for decision makers to fully understand the climate impacts of the proposed rail project. Tar sands 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.

BED-05

For all the aforementioned reasons, I urge the San Luis Obispo County Planning Commission and Board of Supervisors to reject the Phillips 66 proposed rail spur. This project creates significant, unavoidable, and unnecessary risks for our communities and our climate.

Dan Berman, Davis, Ca danbermn@gmail.com

Rail Workers Vote Down Single-Person Crews September 11, 2014 / Alexandra Bradbury

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Railroaders are racing to put the brakes on a secret deal between their union officers and Warren Buffett's railroad. It would allow huge freight trains to rumble through towns across the western U.S. with just an engineer onboard, no conductor. Photo: Spouses & Families Against One Man Crews.

Update: Members strongly rejected the proposed BNSF contract allowing one-person crews. The vote was announced by the union, SMART, on September 10.

August 15—"There's a real rank-and-file rebellion going on right now," says Jen Wallis, a Seattle switchman-conductor for Burlington Northern Santa Fe (BNSF) Railway. "People who've never been involved in the union, never went to a union meeting, they are showing up and they're joining Railroad Workers United in droves.

"People are saying, 'We have to take action now to stop it. We can't let our union officers do this to us.'"

What's all the fuss? On July 16, thousands of railroaders abruptly learned their union officers had held secret negotiations with BNSF, one of the country's biggest freight carriers, and reached a deal to allow single-person train crews: a safety disaster.

Ballots on the tentative agreement went out in early August, and are due back in early September. If the vote goes up, huge freight trains could rumble through towns across the western U.S. with just an engineer onboard, no conductor.

This would be a first on a major railway, and a foot in the door for the whole industry. BNSF is owned by Warren Buffett, one of the world's richest people.

"Members had no clue this was even coming," said John Paul Wright, a locomotive engineer working out of Louisville, Kentucky. "The membership is basically saying, 'What in the hell is going on? We never thought our own union would sell us out.'"

Wright is co-chair of the cross-union, rank-and-file group Railroad Workers United, which has been campaigning against the looming threat of single-person crews for a decade. With just weeks to go, its members are suddenly busy sending out "vote no" stickers and appealing to local labor councils to pass resolutions backing two-person crews.

"We weren't expecting it this soon," says Robert Hill, a BNSF engineer in Spokane, Washington. "We were expecting it."

Railroaders are seeking out RWU and a new Facebook group, "Spouses & Families Against One-Man Crews," to get information and coordinate the push for a "No" vote. Much of the opposition is being led by railroaders' family members.

Engineers and conductors are represented by separate unions. The conductors, members of SMART, are the ones voting on this contract.

"This vote will affect far more people than just the ones that vote on it," said James Wallace, a BNSF conductor in Lincoln, Nebraska, and RWU co-chair, "because it is going to set a precedent for all freight railroads in the U.S., and potentially endanger the job of every conductor in this country." A Strike against One-Person Crews

Till now it seemed the front line of the single-person train crews fight was a smaller freight carrier, Wheeling and Lake Erie Railway.

A hundred members of BLET Local 292 struck against W&LE last September, shutting down its operations in Ohio and Pennsylvania, when the company tried imposing single-person trains unilaterally. A federal temporary restraining order sent them back to work.

"With just 16 hours notice, we had 100 percent compliance [with the strike call]," Local Chairman Lonnie Swigert said. "And when we are 'released' we will do it again if we have to." Their bargaining remains deadlocked over the issue.

And a short-line carrier, Montreal, Maine and Atlantic Railway, made headlines last summer when a runaway train carrying crude oil exploded in the town of Lac Mégantic, Quebec, killing 47 people—just months after it had begun operating with a single-person crew.

The single engineer wasn't on board the train at the time of the disaster. He had parked on a steep grade for the night.

"The rail industry of course says there's no evidence to show if they'd had a conductor the train wouldn't have rolled away," Kaminkow says. "But one can surely speculate that if he'd had the ability to sit in the cab while a trainman went back and did the brake air test..."

Federal Law or Rule?

In the outcry that followed, two Maine Congressmembers proposed a bill to require two-person crews on all freight trains, H.R. 3040. The bill hasn't gotten much traction yet—but attention and online petition signatures for it have spiked since the BNSF deal came out.

And the Federal Railroad Administration is looking at making some kind of a rule requiring two-person crews on hazardous cargos like crude oil. (BNSF claims the new deal excludes these kinds of trains anyway, but there's nothing to hold the carrier to that promise.)

Railroaders point out, though, that the dangers of one-person crews aren't limited to explosive oil trains. The FRA rule might not cover the coal and grain trains that make up a lot of Buffett's bread and butter.

DOWN TO TWO

At its 20th-century peak, railroad employment totaled 2 million. Today it's 10 percent of that.

That's not because the country is shipping less freight. On the contrary, says Ron Kaminkow, RWU's general secretary and a working engineer in Nevada, "We're moving more tonnage than ever before."

But as feuding unions allowed new technologies to replace workers, rail freight crews dwindled from five to two. These days a train carries an engineer, who drives the train, and a conductor, who does everything else.

Here's an incomplete list of those activities: hopping off to throw the switch that moves the train to another track; adding and removing cars; updating the list of which cars have hazardous materials in them (crucial for first responders in case of a wreck); problem-solving if a busted air hose or some other mechanical problem stops the train; and conferring with the engineer about hazards, approaching speed restrictions, and pedestrian or road crossings coming up.

Crucially, the conductor also helps make sure the engineer is still awake and alert. If that sounds like it shouldn't be necessary, consider how freight railroaders are generally scheduled: on 12-hour shifts and on-call 24/7, with no predictable schedule.

"Sometimes you're up 48 hours at a time, with maybe five hours of sleep," says Wallis. "There have been times we're both hallucinating at 3 o'clock in the morning, trying to keep each other awake."

The conductor may also be teaching the engineer details of the complex job.

"It takes about two years to really learn what you're doing," Wallis said.

"It's this classroom in the cab. It's scary, you could have two people in the cab with six months' experience between them. But at least there's two of them."

And the conductor is on hand in case the engineer has, say, a heart attack while at the helm of a 15,000-ton train. As SMART Transportation Division President John Previsich pointed out in a memo opposing the BNSF deal, "No one would permit an airliner to fly with just one pilot, even though they can fly themselves."

A SAFETY DISASTER

The proposed pact would pull conductors off the trains, replacing several with a single "master conductor" who'd drive around in a van, on-call for radio dispatch to any train that might need assistance.

How many trains would one conductor cover? Four, eight? There's no limit—like much else in the deal, it's left to the carrier's discretion.

It's not hard to spot the risks in this plan. Freight tracks cross remote territory. The train might get stopped where there's no road for miles and miles. It could take the conductor a long time to arrive. And the engineer loses a second pair of eyes to help prevent accidents.

Part of the excuse for single-person crews is the coming of yet another new technology, positive train control, which Congress is mandating the rail carriers all adopt by 2015. This automated system will track trains' speed and position, and apply the brakes in certain situations.

Railroaders call this tech advance a good thing—but as an additional boost to safety, not something you'd want to rely on to replace a human. “The railroad unions have been asking for PTC to be implemented as a safety overlay, not in place of a crew member,” Wright says.

Even as companies have been lobbying to delay PTC because of its cost, they've also been eyeing it as an opportunity to cut labor costs.

They will save billions of dollars if they can implement one-person crews, says Kaminkow. “So for the occasional pedestrian who gets run over or car that gets hit, the railroad is willing to roll the dice.”

WORKING ALONE

“I haven't come across a single engineer who is for this at all,” says Wallace. “They would rather have someone there to keep them alert, to job-brief as situations change—and somebody just to keep them company.”

“We will often spend 12 or more hours on a train every day. At times when we're busy, we spend up to 70 hours a week on the train.

“It's going to be a large portion of engineers' lives they're going to be spending alone.” (For more on how working alone hurts solidarity, see this article).

However, engineers aren't voting on this deal. Conductors are, and the deal has sweeteners in it for them—a signing bonus, higher pay for the lucky few who become “master conductors,” and the promise of buyouts or layoffs with full pay.

But most, especially newer conductors, won't see those perks. Instead, they're likely slated to become engineers, whether that's their plan or not.

Though the unions are separate, most engineers are drawn from conductors' ranks. You can volunteer to go to engineer school, but you can also be forced into it, from the bottom of the seniority list, if more engineers are needed.

“Probably a lot of these conductors won't ever work under this contract,” Wallace said. “They'll end up as engineers, working alone in a cab by themselves.”

'THE CRAFT WAR'

The secret pact is controversial even among leaders of SMART. But division leaders responsible for the contract are pushing it hard.

The Brotherhood of Locomotive Engineers and Trainmen, a Teamsters division, represents most engineers. Both SMART and the BLET formally oppose one-person crews, though they haven't exactly presented a strong united front.

The rivalry between the unions—and a fatalistic sense that the change is inevitable—have fueled a series of backstabbing deals. As crews dwindled, the rail unions mainly battled over who would represent the remaining workers.

“While the unions had been on and off paying lip service to the idea of a two-person crew and intolerance for single-person crews, they've also been hedging their bets, saying ‘Meanwhile we're going to cut whatever deal we need to make sure if there's going to be a last man standing, by God, it's going to be us,’” sighs Kaminkow.

“We call it the craft war. I'd much rather fight the class war.”
Environmental Alliance

As it happens, the same week the union held its meeting in Seattle, climate change activists locked themselves down to the railroad tracks in nearby Anacortes, blocking a BNSF oil train for hours. They were protesting the proposal to build a big crude-oil-by-rail terminal at the Port of Vancouver.

Wallis, with deep roots in both worlds, is working hard to build a bridge between railroaders and environmentalists. They clearly have a common enemy in Buffett, who “controls an entire supply chain of oil and gas being shipped out of the U.S. for pennies on the dollar and burned in China and India,” she points out.

There’s suspicion on both sides—viewed one way, “it looks like they’re trying to take our jobs,” Wallis says. “But that’s not true. I think we can have both, jobs and the environment.”

A pair of activist projects just getting underway, Solutionary Rail and the Buffett Legacy Campaign, will push for green jobs, including high-speed passenger rail.

RAUCOUS MEETINGS

SMART leaders immediately launched a PR tour, taking a PowerPoint presentation on the road to promote the deal.

“A lot of the presentation and the campaign to get this is focused on fear,” Wallace said. “There’s a lot of fear that if we don’t accept this contract it’ll just be a lot worse down the road, that we won’t have any bargaining power to negotiate anything better.”

Among their first stops was Seattle, where they met with raucous opposition. “Once I found out about it I immediately created a Facebook event for the meeting, and invited everyone I know,” Wallis said.

That meant not just railroaders but also teachers, Teamsters, guitar players, environmentalists. After all, “one-person crews are not just dangerous for workers, but for the environment and the communities we live in,” she said.

Other railroaders, too, see the writing on the wall for them if this deal goes through. “I had four Union Pacific guys show up at my picket line,”

Wallis said. And since that night, “We’re getting emails every day from all over the country saying ‘We saw what you did. How do we do that?’”

The next night’s meeting in Spokane brought out 60 angry railroaders and their families. “A lot of people were in disbelief,” reports Hill. The touring officers started the PowerPoint, but “the president of Local 426 told them to shut it off, we weren’t interested in looking at their propaganda. We wanted to start asking questions.”

When the officers’ answers to their questions about contract specifics were “a lot of could or should or possibly,” Hill said, “it turned a little hostile... Everybody started getting pretty fired up.

“A lot of [members] were accusing [the officers] of taking buyouts, payouts. A lot of our leaders are close to retirement.”

A second Spokane meeting, planned for the next morning, was canceled.

And in Creston, Iowa, opponents of the deal aren’t waiting till the August 25 meeting—they’re holding rallies twice a day, all month.

Click here to hear engineer John Paul Wright sing "The One-Man Train Blues."

Alexandra Bradbury is co-editor of Labor Notes.al@labornotes.org

- See more at:

<http://www.labornotes.org/2014/09/rail-workers-vote-down-single-person-crews#sthash.kO11yY4v.dpuf>

Respectfully yours, Dan Berman, Davis, CA

Responses to Dan Berman Comments

BED-01	<p>The RDEIR contains a considerable amount of mitigation that may be within the jurisdiction of San Luis Obispo to require prior to project operations that address the potential for accidents, oil spills and emergency response. These include:</p> <p><u>Class I Impact HM.2</u> <i>The potential for a crude oil unit train derailment would increase the risk to the public in the vicinity of the UPRR right-of-way.</i></p> <ol style="list-style-type: none"><i>1. HM-2a Only rail cars designed to FRA, July 23, 2014 Proposed Rulemaking Option 1: PHMSA and FRA Designed Tank Car as listed in Table 4.7.8, shall be allowed to unload crude oil at the Santa Maria Refinery.</i><i>2. HM-2b For crude oil shipments via rail to the SMR a rail transportation route analysis shall be conducted annually. The rail transportation route analysis shall be prepared following the requirements in 49 CFR 172.820. The route with the lowest level of safety and security risk shall be used to transport the crude oil to the Santa Maria Refinery.</i><i>3. HM-2c The Applicant's contract with UPRR, shall include a provision to require that Positive Train Control (PTC) be in place for all mainline rail routes in California that could be used for transporting crude oil to the SMR.</i><i>4. HM-2d The refinery shall not accept or unload at the rail unloading facility any crude oil or petroleum product with an API Gravity of 30° or greater.</i> <p><u>Class I Impact PS.4</u> <i>Operations of the crude oil train on the mainline UPRR tracks would increase demand for fire protection and emergency response services along the rail routes.</i></p> <ol style="list-style-type: none"><i>1. PS-4a As part of the Applicant's contract with UPRR, it shall require that quarterly hazardous commodity flow information documents are provided to all first response agencies along the mainline rail routes within California that could be used by trains carrying crude oil to the Santa Maria Refinery for the life of the project. Only first response agencies that are able to receive security sensitive information as identified pursuant to Section 15.5 of Part 15 of Title 49 of the Code of Federal Regulations, shall be provided this information. This contract provision shall be in place and verified by the County Department of Planning and Building prior to delivery of crude by rail to the Santa Maria Refinery.</i><i>2. PS-4b Only rail cars designed to FRA, July 23, 2014 Proposed</i>
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Rulemaking Option 1: PHMSA and FRA Designed Tank Car shall be allowed to unload crude oil at the Santa Maria Refinery. PS-4c As part of the Applicant's contract with UPRR, it shall require annual funding for first response agencies along the mainline rail routes within California that could be used by the trains carrying crude oil to the Santa Maria Refinery to attend certified offsite training for emergency responders to railcar emergencies, such as the 40 hour course offered by Security and Emergency Response Training Center Railroad Incident Coordination and Safety (RICS) meeting Department of Homeland security, NIIMS, OSHA 29CFR 1910.120 compliance. The contract shall require funding of a minimum of 20 annual slots per year for the life of the project. This contract provision shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.

- 3. PS-4d As part of the Applicant's contract with UPRR, it shall require annual emergency responses scenario/field based training including Emergency Operations Center Training activations with local emergency response agencies along the mainline rail routes within California that could be used by the crude oil trains traveling to the Santa Maria Refinery for the life of the project. A total of four training sessions shall be conducted per year at various locations along the rail routes. This contract provision shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.*
- 4. PS-4e As part of the Applicant's contract with UPRR, it shall require that all first response agencies along the mainline rail routes within California that could be used by trains carrying crude oil traveling to the Santa Maria Refinery be provided with a contact number that can provide realtime information in the event of an oil train derailment or accident. The information that would need to be provided would include, but not be limited to crude oil shipping papers that detail the type of crude oil, and information that can assist in the safe containment and removal of any crude oil spill. This contract provision shall be in place and verified by the Cal Fire/County Fire prior to delivery of crude by rail to the Santa Maria Refinery.*

Class II Impact PS.3

The Rail Spur Project would increase demand for fire protection and emergency response services at the SMR.

- 1. PS-3A Prior to issuance of construction permits, the Applicant shall submit to Cal Fire/County Fire for review and approval a final Fire Protection Plan for the Rail Spur Project that meets all the applicable requirements of API, NFPA, UFC, and Cal Fire/County Fire.*

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2. *PS-3b Prior to notice to proceed for the rail unloading facility, the Applicant shall update the SMR Emergency Response Plan to include the rail unloading facilities and operations.*
3. *PS-3c Prior to notice to proceed for the rail unloading facility, the Applicant shall update the existing SMR Spill Prevention Control and countermeasure Plan to include the rail unloading facilities and operations.*
4. *PS-3d Prior to notice to proceed for the rail unloading facilities, the Applicant shall assure that the existing SMR fire brigade meets all the requirements outlined in Occupational Safety and Health Administration 29 CFR 1910.156, and NFPA 600 & 1081.*
5. *PS-3e Prior to issuance of grading permits, the Applicant shall have an executed operational Memorandum of Understanding (MOU) with Cal Fire/County Fire that includes fire brigade staffing/training requirements and Cal Fire/County Fire funding requirements. This MOU shall be reviewed and updated annually by Cal Fire and the Applicant.*
6. *PS-3f Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for time spent by a qualified fire inspector to conduct the annual fire inspections at the SMR including all structures, and support facilities consistent with Cal Fire/County Fire's authority and jurisdiction. The Applicant shall reimburse all costs associated with travel time, inspections, inspection training, and documentation completion. The reimbursement rate shall be according to the most recent fee schedule adopted by the San Luis County Board of Supervisors.*
7. *PS-3g Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for offsite training for emergency responders to railcar emergencies, such as the 40 hour course offered by Security and Emergency Response Training Center Railroad Incident Coordination and Safety (RICS) meeting Department of Homeland security, NIIMS, OSHA 29CFR 1910.120 compliance. Initial training shall be two members of the Interagency Hazardous materials Response Team, two members of the interagency Urban Search and Rescue Team, and two members annually from Cal Fire/County Fire or fire districts in San Luis Obispo that have automatic aid agreements with Cal Fire/County Fire for a total of six slots per year for the life of the project.*
8. *PS-3h Prior to issuance of grading permits, the Applicant shall have an agreement to reimburse Cal Fire/County Fire for Fire Chief Officer attendance such as the 40 hour course offered by Security and*

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Emergency Response Training Center; Leadership & Management of Surface Transportation Incidents. Funding shall be for two Fire Chief Officers annually for the life of the project.

9. *PS-3i Prior to issuance of grading permits, the Applicant shall have an agreement with Cal Fire/County Fire to conduct annual emergency response scenario/field based training including Emergency Operations Center Training activations with the Applicant, Cal Fire/County Fire, UPRR, and other San Luis Obispo County First response agencies that have mutual aid agreements with Cal Fire/County Fire. These annual emergency response drills shall occur for the life of the project.*

Given the long distances that the crude oil rail trains will be travelling, at least two engineers will be required per train.

The methodology for estimating crude oil unit train accidents and spill probabilities is 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 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 estimate the effect of FRA Track

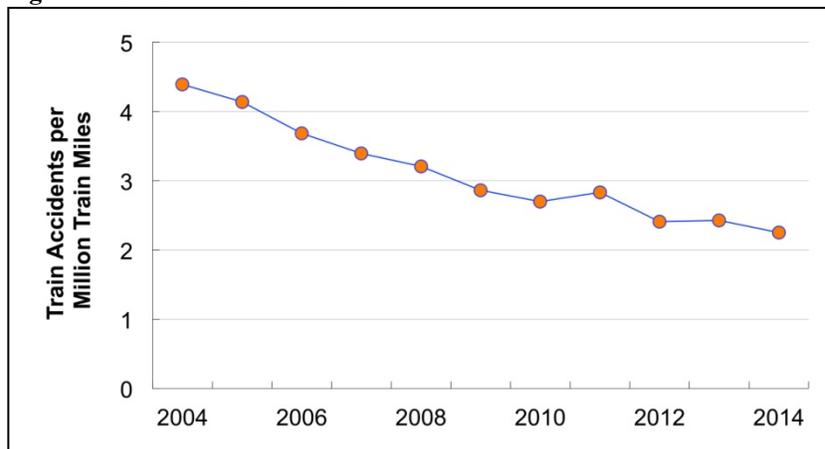
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Class, Traffic Density and Method of Operation (Signaled or Unsignaled) on derailment rate. This additional granularity is needed for more precise segment-specific accident rate used in the analysis.

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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	<p>Data Source: US DOT Federal Railroad Administration http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (Data for 2014 include January through November)</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
BED-02	<p>The increase and potential health risk from air toxic emissions from the proposed Project is analyzed in Section 4.3 (Air Quality and Greenhouse Gases) of the RDEIR. The EIR found that cancer risk from air toxic emissions at the SMR and along the mainline rail routes would be significant and unavoidable (Class I).</p>
BED-03	<p>The EIR, in section 4.13 under impact WR.3 indicates that "As illustrated in</p>

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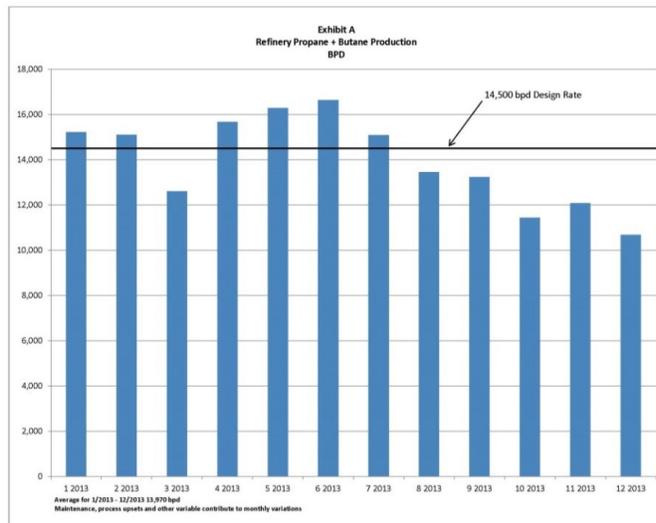
	<p>Figures 4.13-4 through 4.13-9 and summarized in Tables 4.13-1 and 4.13-2 in the RDEIR, the northern and southern UPRR mainline track from the Santa Maria Refinery to Roseville and Colton, respectively, would traverse numerous creeks, washes, rivers, wetlands, and sloughs. In addition, the routes are located in proximity to numerous lakes and marine waters. 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.</p>
BED-04	<p>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>i.e.</i>, 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</p>

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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

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	<p>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).</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>
BED-05	<p>The EIR discusses crude oil slate in Section 4.3 (Air Quality and Greenhouse Gases). The refining of the different crude slate associated with this project would not produce different GHG emissions at the SMR than the normal range of crude oils refined at the SMR. Note that some Canadian crude oils are currently being processed at the SMR, transported by rail to Bakersfield, then by truck to the SMPS. GHG emissions are attributable to removal of the heavier ends, such as at the SMR, and associated with the cracking and formulation of lighter ends, such as gasoline, at the Rodeo Refinery. This latter activity would be within the range of normal activities at each refinery. 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.</p>