



STAFF REPORT

TOWN COUNCIL MEETING OF SEPTEMBER 9, 2014

To: Town Council

From: Town Manager
Fire Chief Bettencourt

Subject: Update and Discussion on Crude Oil by Rail Issue

Date: August 26, 2014

RECOMMENDATION:

No action by the Town Council is requested. This item is Receive and File.

DISCUSSION:

Over the past several years, the amount of crude oil shipped by rail from various areas in North America to California has grown substantially, with the volume of crude oil shipments by rail to Northern California increasing by 57 percent during 2013. The various oil companies use existing Union Pacific trains to ship crude oil to California refineries. The oil cars travel along the Union Pacific rail tracks, which follow the Amtrak Capitol Corridor route through the Bay Area.

Nationally, oil by rail is on a steep upward trajectory: US freight railroads carried more than 400,000 carloads (or 280 million barrels) of crude oil in 2013, compared to just 9,500 carloads (or 6.65 million barrels) in 2011. The flexibility and economics of rail transport as compared to new pipeline construction (including Keystone XL) have made oil by rail an attractive option: as much as 90 percent of North Dakota's crude is expected to move by freight rail in 2014.

The rise in oil by rail is not without environmental and human health risks. Potential accidents could be caused by derailment, collisions, or leaks. In 2013, more oil spilled from trains in the United States than in the previous four decades combined, with high-profile incidents in Alabama and North Dakota. And 1.5 million gallons spilled in an accident in Quebec that resulted in 47 fatalities and contaminated a nearby river.

In particular, projects in Benicia (Valero) and Santa Maria (Phillips) have raised concerns among the many jurisdictions through which the shipments of crude oil would be transported.

Earlier this year, several jurisdictions within the Sacramento Area of Governments (SACOG) brought the issue of crude oil shipments through the Sacramento area to SACOG staff. In April, SACOG held its first

meeting on the subject, and invited staff from all jurisdictions to participate as well as representatives from Union Pacific.

Following the April meeting, local member jurisdictions, including Loomis, have met on several occasions to discuss safety issues and the Draft EIR prepared for the Benicia (Valero) project. With input from the participating jurisdictions, SACOG staff drafted a comment letter (Exhibit A) which was approved by the SACOG Board on August 21, 2014 to be submitted to Benicia.

During this same period of time, First Responders from the region, including Fire Chief Bettencourt of the Loomis Fire Protection and South Placer Fire Protection Districts, have been having ongoing meetings regarding this issue. Exhibit B is a summary paper prepared by Fire Chief Rick Martinez of the West Sacramento Fire Department which details some of the measures that are being addressed.

The Town Manager and Chief Bettencourt will be making a presentation to the Town Council. John McElowney, Program Manager for Placer County/Office of Emergency Services will also be present to answer any questions.

CEQA:

The proposed presentation is exempt from CEQA.

FINANCIAL IMPLICATIONS:

There is no financial impact to the Town at this time.

Attachments: Exhibit A SACOG Comment Letter and UP's Response to the Comment Letter
Exhibit B Fire Chief Rick Martinez
Power Point Slides

DRAFT COMMENT LETTER

Amy Million, Principal Planner
Community Development Department
250 East L Street
Benicia, CA 94510

Re: Valero Benicia Crude by Rail Project Draft Environment Impact Report

Dear Ms. Million:

On behalf of its 22 city and 6 county member jurisdictions, the Sacramento Area Council of Governments (SACOG) submits the following comments on the Draft Environmental Impact Report (DEIR) for the Valero Benicia Crude by Rail Project.¹ The Project, as described in the DEIR, proposes daily shipments of 70,000 barrels of crude oil to the Valero Benicia Refinery. The crude oil tank cars would originate at unidentified sites in North America, would be shipped to the Union Pacific Railroad Roseville Yard, and would be assembled there into two daily 50-car trains to Benicia.

Over the last several months, we have been meeting with our members to discuss this Project, to become informed about the risks associated with crude oil transportation by rail, and to discuss measures to avoid or minimize the serious risks associated with operating crude oil trains through the communities in our region. We have discussed our concerns with representatives from Union Pacific Railroad and the Valero Benicia Refinery. As our Board of Directors has made clear, SACOG's interest is to ensure that all appropriate measures, based upon a full investigation of the risks, are taken to protect the safety of our residents and their communities, and businesses and property throughout the region. In that regard, our Board has indicated that, at a minimum, the measures to protect our region should include the following:

- Advance notification to county and city emergency operations offices of all crude oil shipments (to facilitate more rapid and appropriate public safety responses);
- Limitations on storage of crude oil tank cars in urbanized areas (of any size), and appropriate security for all shipments;
- Support, including full cost funding, for training and outfitting emergency response crews;
- Utilization of freight cars, with electronically controlled pneumatic brakes, rollover protection, and other features, that mitigate to extent feasible the risks associated with crude oil shipments;
- Funding for rail safety projects (e.g., replacement/upgrade of existing tracks, grade separations, Positive Train Control, etc.);

¹ SACOG submits this letter as a joint powers agency, exercising the common powers of its members pursuant to a joint powers agreement. However, this letter is not an exhaustive treatment of the DEIR's compliance with the California Environmental Quality Act or of the concerns of all of its members, many of whom may also provide separate comments.

- Utilization of best available inspection equipment and protocols;
- Implementation of positive train controls to prioritize areas with crude oil shipments; and
- Prohibition on shipments of unstabilized crude oil that has not been stripped of the most volatile elements, including flammable natural gas liquids.

Unfortunately, the DEIR never gets to a discussion of these measures—or any other measures that might ensure the safety of our region—because the DEIR concludes that crude oil shipments by rail pose no “significant hazard” whatsoever. We believe that conclusion is fundamentally flawed, disregards the recent events demonstrating the very serious risk to life and property that these shipments pose, and contradicts the conclusions of the federal government, which is mobilizing to respond to these risks.

On May 7, 2014, the United States Department of Transportation in fact concluded that crude oil shipments by rail pose not merely a significant hazard, but an “*imminent hazard*,” stating:

“Upon information derived from recent railroad accidents and subsequent DOT investigations, the Secretary of Transportation (Secretary) has found that an unsafe condition or an unsafe practice is causing or otherwise constitutes an imminent hazard to the safe transportation of hazardous materials. Specifically, a pattern of releases and fires involving petroleum crude oil shipments originating from the Bakken and being transported by rail constitute an imminent hazard under 49 U.S.C. 5121(d).”

...

“An imminent hazard, as defined by 49 U.S.C. 5102(5), constitutes the existence of a condition relating to hazardous materials that presents a substantial likelihood that death, serious illness, severe personal injury, or a substantial endangerment to health, property, or the environment may occur before the reasonably foreseeable completion date of a formal proceeding begun to lessen the risk that death, illness, injury or endangerment.”²

Under these circumstances, we urge the City of Benicia to revise the DEIR so that it will fully inform decision-makers and the public of the potential risks of the Project and address adequate mitigation measures to ensure the safety of our communities. With that objective in mind, in the following pages we address some of the very substantial deficiencies in the DEIR—deficiencies which apparently have caused the DEIR to fail to analyze and consider the significant adverse impacts of the Project and to evaluate all feasible mitigation to reduce those impacts to a less than significant level.

² Emergency Restriction/Prohibition Order DOT-OST-2014-0067 (May 7, 2014) (<http://www.dot.gov/briefing-room/emergency-order>).

Comments on the DEIR

The California Environmental Quality Act (CEQA) mandates that an EIR identify and analyze all potentially significant adverse effects of a project, including both direct and indirect impacts, and short-term and long-term impacts. (Pub. Resources Code, § 21100; Cal. Code Regs., tit. 14, §§ 15126, 15126.2.) The DEIR is deficient in numerous respects, as set forth below.

The DEIR fails to consider the risk of fire and explosion as a threshold of significance.

Although the sample Initial Study checklist found in Appendix G to the CEQA Guidelines is an obvious and commonly used source of thresholds of significance, agencies may not rely on it exclusively when a particular project, or particular circumstances, gives rise to environmental concerns not addressed in the checklist. In *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, the court held that an agency cannot rely on a reflexive determination to follow the significance thresholds in Appendix G without regard to whether those standards are broad enough to encompass the scope of the project at issue. The court explained that, “in preparing an EIR, the agency must consider and resolve every fair argument that can be made about the possible significant environmental effects of a project, irrespective of whether an established threshold of significance has been met with respect to any given effect.” (116 Cal. App. 4th at p. 1109.)

In this instance, in complete reliance on Appendix G, and without considering the very real and substantial risks of the transportation of crude by rail, the DEIR does not address the risk of fire and explosion in its thresholds of significance. Specifically, in the only threshold of significance potentially applicable to the risk of transportation, the DEIR adopts the following for Hazards and Hazardous Materials:

“Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the *release of hazardous materials into the environment.*”³

As has been reported widely over the last several years, the character and quality of the domestic and Canadian crude oil currently being transported by rail across the United States has dramatically shifted the public safety concern from a hazardous material release to fiery explosions. A series of oil derailments in just the last two years has created a policy imperative in both Washington, D.C., and Sacramento. As United States Secretary of Transportation Anthony Foxx recently stated, “as a nation we are a little bit caught off guard by the growth of our energy production and we have to catch up very quickly.”⁴

Indeed, the following major accidents have heightened concern about the risks involved in shipping crude by rail.

³ DEIR, p. 4.7-13 (emphasis added).

⁴ Politico, Morning Transportation (April 24, 2014), <http://www.politico.com/morningtransportation/0414/morningtransportation13715.html>.

- **Lac Mégantic, Quebec**—On July 5, 2013, a train with 72 loaded tank cars of crude oil from North Dakota moving from Montreal, Quebec, to St. John, New Brunswick, stopped at Nantes, Quebec, at 11:00 pm. The operator and sole railroad employee aboard the train secured it and departed, leaving the train on shortline track with a descending grade of about 1.2%. At about 1:00 AM, it appears the train began rolling down the descending grade toward the town of Lac-Mégantic, about 30 miles from the U.S. border. Near the center of town, 63 tank cars derailed, resulting in multiple explosions and subsequent fires. There were 47 fatalities and extensive damage to the town. 2,000 people were evacuated. The initial determination was that the braking force applied to the train was insufficient to hold it on the 1.2% grade and that the crude oil released was more volatile than expected.
- **Gainford, Alberta**—On October 19, 2013, nine tank cars of propane and four tank cars of crude oil from Canada derailed as a Canadian National train was entering a siding at 22 miles per hour. About 100 residents were evacuated. Three of the propane cars burned, but the tank cars carrying oil were pushed away and did not burn. No one was injured or killed. The cause of the derailment is under investigation.
- **Aliceville, Alabama**—On November 8, 2013, a train hauling 90 cars of crude oil from North Dakota to a refinery near Mobile, Alabama, derailed on a section of track through a wetland near Aliceville, Alabama. Thirty tank cars derailed and some dozen burned. No one was injured or killed. The derailment occurred on a shortline railroad's track that had been inspected a few days earlier. The train was traveling under the speed limit for this track. The cause of the derailment is under investigation.
- **Casselton, North Dakota**—On December 30, 2013, an eastbound BNSF Railway train hauling 106 tank cars of crude oil struck a westbound train carrying grain that shortly before had derailed onto the eastbound track. Some 34 cars from both trains derailed, including 20 cars carrying crude, which exploded and burned for over 24 hours. About 1,400 residents of Casselton were evacuated but no injuries were reported. The cause of the derailments and subsequent fire is under investigation.
- **Plaster Rock, New Brunswick**—On January 7, 2014, 17 cars of a mixed train hauling crude oil, propane, and other goods derailed likely due to a sudden wheel or axle failure. Five tank cars carrying crude oil caught fire and exploded. The train reportedly was delivering crude from Manitoba and Alberta to the Irving Oil refinery in Saint John, New Brunswick. About 45 homes were evacuated but no injuries were reported.
- **Philadelphia, Pennsylvania**—On January 20, 2014, 7 cars of a 101-car CSX train, including 6 carrying crude oil, derailed on a bridge over the Schuylkill River. No injuries and no leakage were reported, but press photographs showed two cars, one a tanker, leaning over the river.
- **Vandergrift, Pennsylvania**—On February 13, 2014, 21 tank cars of a 120-car train derailed outside Pittsburgh. Nineteen of the derailed cars were carrying crude oil from western Canada, and four of them released product. There was no fire or injuries.

- **Lynchburg, Virginia**—On April 30, 2014, 15 cars in a crude oil train traveling at low speed derailed in the downtown area of this city. Three cars caught fire, and some cars derailed into a river along the tracks. The immediate area surrounding the derailment was evacuated. No injuries were reported.⁵

Notwithstanding that the United States Department of Transportation, among others, has determined that Bakken Crude “has a higher gas content, higher vapor pressure, lower flash point and boiling point...which correlates to increased ignitability and flammability,”⁶ and that the recent events listed above have spurred a massive emergency effort at the federal level to address safety concerns,⁷ the DEIR dismisses them in a footnote, stating that “Not every tank car derailment results in a spill, fire, or explosion.”⁸ With that simple artifice, the DEIR justifies limiting its analysis to “derailments that result in a release of crude oil.”⁹ As discussed below, even the Release Rate Analysis used to conclude that there is a less than significant impact from Hazards and Hazardous Materials completely ignores the risk of fire and explosion.¹⁰

Having failed to establish a significance threshold that addresses the most critical health and safety risk from crude oil shipments by rail—fire and explosion—the DEIR fails to conduct the necessary analysis of such risks and fails to identify the mitigation measures necessary to protect the communities along the rail routes to the Project site.

⁵ Congressional Research Service, U.S. Rail Transportation of Crude Oil: Background and Issues for Congress (May 5, 2014). In March and April 2013, there were also two derailments of Canadian Pacific trains, one in western Minnesota and the other in Ontario, Canada; less than a tank car of oil leaked in each derailment and neither incident caused a fire. While operators may have implemented safety precautions to address the operational deficiencies exposed over the last few years, these incidents also demonstrate the unpredictability of what can happen by transporting such volatile materials by rail. Addressing safety concerns on such an ad hoc basis will not reduce the overall risks.

⁶ Report summarizing the analysis of Bakken crude oil data:
http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_8A422ABDC16B72E5F166FE34048CCCBFED3B0500/filename/07_23_14_Operation_Safe_Delivery_Report_final_clean.pdf.

⁷ DEIR at pp. 4.7-5 to 4.7-10.

⁸ DEIR, at p. 4.7-17, fn. 4.

⁹ DEIR, at p. 4.7-17, fn. 4.

¹⁰ See Railroad Crude Oil Release Rate Analysis for Route between Roseville and Benicia, DEIR, Appendix F.

The Project poses a “significant hazard” to the public and the environment through reasonably foreseeable upset and accident conditions.

By any measure or standard, the Project poses a “significant hazard” to the communities along the rail routes to the Project site. First, the Release Rate Analysis used to conclude that the transportation of crude oil by rail poses a less significant hazard to people and the environment is fundamentally flawed in numerous respects. Second, even if the Release Rate Analysis were accurate, its findings do not support the conclusion of less than significant impacts.

The Release Rate Analysis is flawed as a tool to assess the potential environmental impacts of the project.

As a threshold matter, it should be noted that the Release Rate Analysis is the sole basis in the DEIR for concluding that the hazards posed by the Project are less than significant. That Analysis is flawed.

First, the Analysis does not even address the most significant risks to persons, property, businesses, and the sensitive lands along the rail routes to the Project site. As noted above, the risk of fire and explosion are substantial, as evidenced by the series of events over the last two years which have attracted national and international attention and a call for immediate rail operations reforms. In fact, the Analysis does not even consider the recent events, limiting its analysis to derailments over the 5-year period from 2005-2009. This narrow focus misses most of the massive growth in crude oil shipments nationwide. Since 2007, crude oil by rail has seen a 6000% increase, driven largely by the extraordinary increases in energy development in the Bakken Formation in North Dakota and Montana.¹¹ The Analysis never, in fact, analyzes the impact of this tremendous growth in dangerous crude oil rail shipments.

Second, as discussed in more detail below, the Analysis does not accurately assess the potential environmental impacts of the Project because it disregards the full geographic scope of the Project. Specifically, the Analysis only considers potential derailments from Roseville to Benicia. This Analysis does not evaluate potential derailments along the entire rail routes from the oil fields to Roseville, the assemblage and other activities in the Roseville Rail Yard, and the utilization of siding or storage tracks during transportation.

Third, the Analysis minimizes the potential risk of derailment by assuming a “just-in-time” supply chain—that is, that Union Pacific 50-car unit trains will travel from Roseville to Benicia without incident and will be immediately available for processing at Valero, that the trains or tank cars would never be stored or moved to sidings, and that no incidents (including accidents or maintenance) would ever delay delivery to Valero. As the DEIR readily acknowledges, however, Valero does not control the movement of tank cars on the rail line—Union Pacific does. And freight shipments do not operate on regular

¹¹ <http://www.franken.senate.gov/files/letter/140404RailSafety.pdf>. Note that in Northern California alone, crude oil shipments by rail increased by 57% in 2013. (<http://www.planetizen.com/node/67904>.) Crude oil production in the Bakken region has nearly tripled from 2010 to 2013. (http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_8A422ABDC16B72E5F166FE34048CCCBFED3B0500/filename/07_23_14_Operation_Safe_Delivery_Report_final_clean.pdf.)

schedules. Valero can request Union Pacific to meet certain schedules, but has no ability to control the ultimate schedule of the rail operations. As such, it cannot guarantee the “just-in-time” service assumed in the Release Rate Analysis. The shipments also may come with greater frequency and fewer tank cars, which would increase traffic on the alignment and substantially increase the risk.

Fourth, by using national derailment rates the Analysis does not assess the Project specific conditions of the these shipments. Of particular note, the Analysis reveals that over 1.3 miles of rail from Roseville to Benicia is FRA Class 1 track—track which has a 15.5 times greater risk of derailment than FRA Class 5 track.¹² However, the Analysis does not consider the location of the Class 1 track, the operational components of the track, the proximity of the track to highly populated areas, schools, hospitals, dangerous facilities, or sensitive lands or habitat.¹³

In light of these flaws, the Rate Release Analysis does not adequately assess the risks associated with the Project’s crude oil shipments.

Even were it not flawed, the Release Rate Analysis does not assess the potential environmental impacts of the Project or support the conclusion that crude oil by rail shipments do not pose a significant hazard.

While the DEIR adopts a “significant hazard” test as the threshold of significance, the DEIR never defines or describes the nature of that test. Rather, it merely determines that, under the optimum conditions described in the DEIR, a crude oil train release incident exceeding 100 gallons will only occur every 111 years and then concludes on that basis that the Project poses no significant hazard risk. The DEIR can only reach that conclusion by ignoring the nature of the crude oil being shipped, the specific risks posed by such shipments, and the circumstances of the shipments (including all operational possibilities, specific track and facilities in use, and operating conditions) in relation to the communities, populations, businesses, and land through which the shipments will travel.

At a common sense level, the conclusion that no “significant hazard” exists is absurd in light of the massive mobilization at the federal level to intervene to make crude oil transport by rail safer. As noted above, the United States Department of Transportation recently concluded that crude oil shipments by rail pose an “imminent hazard.”¹⁴ And while the DEIR cites the extensive and repeated federal regulatory

¹² Railroad Crude Oil Release Rate Analysis for Route between Roseville and Benicia, DEIR, Appendix F, at p. 6.

¹³ Although the DEIR lists schools within a quarter mile of the rail line (DEIR, at p. 4.7-23), it does not analyze the risks associated with the risks associated with such proximity other than the air quality impacts.

¹⁴ Emergency Restriction/Prohibition Order DOT-OST-2014-0067 (May 7, 2014) (<http://www.dot.gov/briefing-room/emergency-order>).

calls to improve the safety of crude oil shipments,¹⁵ the DEIR simply concludes that no significant hazard exists.

In a similar context, the National Inventory of Dams classification system defines as a significant hazard circumstances when “Failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns.” As noted, the DEIR does not even attempt to define a significant hazard, and it never gets to the real crux of risk assessment because it never evaluates—either on a general basis or on a community-specific basis—the specific nature of the hazard, the potential risk of harm to people, property, or human activities, and the potential impacts and magnitude of the hazard.¹⁶ It merely concludes that a crude oil release every 111 years is not significant.

The critical component missing from the DEIR’s analysis is the magnitude of the risk, even from events that may only occur rarely, because small risks of serious illness or death are potentially significant. For example, Sacramento Metropolitan Air Quality Management District’s evaluation criterion for cancer risk is *276 in a million*.¹⁷ And in this regard the DEIR completely fails. Not only does it completely disregard the magnitude of the risk to the communities along the rail alignment, it appears to assume that they do not even exist.¹⁸ It fails to discuss the impact of a crude oil release in those communities and, as noted, it specifically excludes any discussion of fire or explosion. The DEIR also fails to discuss or analyze the specific nature of the crude oil likely to be shipped to Valero. Clearly, the flammability and volatility of the Bakken Formation crude oil, and the high viscosity and toxicity of the Canadian bitumen, were not previously anticipated by the shipping industry. Only now—after significant loss to life and property—is the federal government responding to this emergency. The facts are that qualities and characteristics of crude oil in the United States are not even known at this point. Sixteen United States Senators recently called for funding of Operation Classification, a study of the crude oil properties by the Pipeline and Hazardous Materials Safety Administration (PHMSA), that is viewed as an important step in informing future regulatory actions.¹⁹

A September 2013 report from the National Oceanic and Atmospheric Administration highlighted the risks of Canadian bitumen. In order to transport bitumen, natural gas condensate or synthetic crude oil

¹⁵ DEIR, at pp. 4.7-5 to 4.7-10.

¹⁶ See, e.g., FEMA Risk Assessment Process, at <http://www.ready.gov/risk-assessment>.

¹⁷ See, e.g., SMAQMD Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways (March 2011), at <http://www.airquality.org/ceqa/SLUMajorRoadway/SLURecommendedProtoco2.4-Jan2011.pdf>.)

¹⁸ The DEIR makes passing reference to the cities between Roseville and Benicia, but even then it does not list the cities of Citrus Heights or West Sacramento, nor the unincorporated areas of Placer, Sacramento, and Yolo counties. DEIR, at p. 4.7-16.

¹⁹ <http://www.franken.senate.gov/files/letter/140404RailSafety.pdf>. The letter erroneously referred to the study as “Operation Backpressure.”

is typically added, which may contain elevated benzene levels and sulfur content that is heavier than air, and has a relatively low flash point and flammability. Bitumen is also heavier than water, unlike most crude oil, which poses other risks. These facts lead to the conclusion that there is the potential for both environmental and human hazards from exposure to bitumen, whether leaked or burned.²⁰

Canadian bitumen also has raised particular concerns in the aftermath of a 2010 pipeline spill into Talmadge Creek, which flows into the Kalamazoo River in Michigan. The observations from the spill strongly suggest that the bitumen may pose different hazards, and possibly different risks, than other forms of crude oil. Approximately 850,000 gallons of oil spilled into the Creek. After three years of cleanup activities, the EPA observed that the bitumen “will not appreciably biodegrade,” which has led to a decision to dredge the river. As of September 2013, the response costs were \$1.035 billion, substantially higher than would be anticipated to remediate conventional oil.²¹

The properties of Bakken shale oil, although highly variable even within the same oil field, are generally much more volatile than other types of crude. In January of this year, PHMSA issued a safety alert warning that recent derailments and resulting fires indicate that crude oil being transported from the Bakken region may be more flammable than traditional heavy crude oil.²²

But the federal response to these, whatever its final form, does not relieve the DEIR of fully analyzing the nature of the potential crude oil to be shipped, regardless of the source, and of mitigating the risks presented by the Project’s crude oil shipments.

The DEIR fails to analyze the potential environmental impacts of crude oil transport beyond the Roseville to Benicia alignment.

Although the DEIR concedes the necessity to analyze the environmental impacts beyond the immediate Project site to include the crude oil transportation route, the analysis falls far short of the requirements of CEQA. As a threshold matter, the DEIR improperly limits its analysis to the route from Roseville to Benicia, claiming as “speculative” the originating site of the crude oil. In fact, within the Sacramento region there are only five rail subdivisions which lead to the Roseville Yard: Fresno, Martinez, Roseville, Sacramento, or Valley.²³ Of these, only the Roseville, Sacramento, and Valley subdivisions connect to

²⁰ Transporting Alberta Oil Sands Products: Defining the Issues and Assessing the Risks (September 2013) NOAA Technical Memorandum NOS OR&R 44.

²¹ Congressional Research Service, U.S. Rail Transportation of Crude Oil: Background and Issues for Congress (May 5, 2014), at p. 13.

²² PHMSA, Safety Alert—January 2, 2014, Preliminary Guidance from OPERATION CLASSIFICATION.

²³ See State Office of Emergency Services Rail Risk Map (<http://california.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=928033ed043148598f7e511a95072b89>).

the north or east where such shipments will originate. Limiting the analysis to Roseville to Benicia is arbitrary and the DEIR must analyze the full environmental impacts of each potential route.

In *Muzzy Ranch v. Solano County Airport Land Use Commission* (2007) 41 Cal. 4th 372, the California Supreme Court made clear that it is a lead agency's responsibility to consider even geographically distant environment impacts. CEQA broadly defines the relevant geographical environment as "the area which will be affected by a proposed project." (Pub. Resources Code, § 21060.5.) Consequently, "the project area does not define the relevant environment for purposes of CEQA when a project's environmental effects will be felt outside the project area." (*County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582-1583.) Indeed, "the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area." (*Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.) The DEIR cannot just assume that crude oil tank cars will magically appear in Roseville, but must account for the potential impacts of transporting those cars through other communities and property in the Sacramento region.

Additionally, as noted above, the DEIR completely disregards the train assembly activities in the Roseville Yard in close proximity to residential neighborhoods. It also assumes that a "just-in-time" supply chain can and will be used for the Project. As a consequence, the DEIR's evaluation of the Project's potential impacts does not consider the risks associated with crude oil tank cars being stored before they can be processed at the Valero facility and does not discuss the possible locations for such storage. As noted, since Valero concedes that it ultimately cannot control the timing of the crude oil shipments, it must account for such events. By failing to discuss these storage needs, the DEIR fails to analyze the entire project. As set forth in the CEQA Guidelines, a "project" is "the whole of an action" that may result in either a direct physical environmental change or a reasonably foreseeable indirect change. (CEQA Guidelines, § 15378; see also *Habitat & Watershed Caretakers v City of Santa Cruz* (2013) 213 Cal.App.4th 1277, 1297; *Banning Ranch Conservancy v City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1220.) In *Whitman v Board of Supervisors* (1979) 88 Cal.App.3d 397, for example, an EIR for oil facilities was overturned in part because it failed to analyze the impact of pipelines that would need to be built to service the facilities. Similarly here, the Project analyzed must consider all of the reasonably foreseeable operational details.

The DEIR fails to analyze the cumulative impacts of the Project.

While the DEIR's purported cumulative analysis identifies some 17 crude oil by rail, refinery, and refinery related projects, it does not assess the increased risk of multiple crude oil rail shipments, from multiple trains, serving multiple projects in California.²⁴ The DEIR dismisses the potential for any increase in risk

²⁴ DEIR, at pp. 5-6 to 5-11, 5-16.

due to multiple crude oil rail projects by opining that any explosion/leakage from a rail car would be separate and apart from any other such explosion/leakage and thus there could be no cumulative impact. However, this omits the fact that a key factor in the risk analysis relied on in the DEIR is the number of train-miles traveled.²⁵ Therefore, as the cumulative number of train trips increase along a particular rail alignment, the risk of accidents increases. The DEIR should have considered whether the proposed Project's contribution to this risk is cumulatively considerable. And at least two of the projects identified in the DEIR are expected to result in new crude oil shipments along the same rail alignment: the WesPac Pittsburg Energy Infrastructure Project and the Phillips 66 Company Rail Spur Extension Project. The DEIR fails to analyze those cumulative impacts.

Additionally, when, as here, a DEIR's evaluation of cumulative impacts is based on a list of past, present, and probable future projects, it must include in that list any project "producing related impacts, including, if necessary, projects outside the lead agency's control." (CEQA Guidelines, § 15130(b)(1)(A).) Here, the DEIR has failed to consider in its list of reasonably foreseeable future projects the full potential for overall increase in rail cars traveling along the paths that will be taken by the Valero rail cars. Surely any addition of rail cars on the tracks would produce related impacts (e.g., collisions).

The DEIR improperly conflates its description of the Project with measures intended to reduce or avoid the clear impacts of the Project.

In at least two respects, although it is ambiguous at best on these points, the DEIR describes what purport to be elements of the Project intended to reduce, avoid, or mitigate the potential environmental impacts of the Project. The first is the general "commitment" to use CPC-1232 tank cars, rather than the legacy DOT-111 tank cars for transporting crude oil.²⁶ The second is the incorporation of the "General Railroad Safety" measures to be undertaken by Union Pacific.²⁷ Such a device was rejected by the court in *Lotus v. Dep't of Transportation* (2014) 223 Cal. App. 4th 645.

The *Lotus* court held that measures designed to avoid, minimize, rectify, reduce, or compensate for a significant impact are not "part of the project," but should be presented as mitigation measures in response to the identification of significant environmental effects. "By compressing the analysis of impacts and mitigation measures into a single issue, the EIR disregards the requirements of CEQA." This "short-cutting of CEQA requirements...precludes both identification of potential environmental consequences arising from the project and also thoughtful analysis of the sufficiency of measures to mitigate those consequences." CEQA requires a lead agency to consider a proposed project, evaluate its environmental impacts and, if significant impacts are identified, to describe feasible mitigation measures

²⁵ See Univ. of Illinois, Railroad Crude Oil Release Rate Analysis for Route between Roseville, CA and Benicia, CA (June 2014), p. 3, at <http://www.ci.benicia.ca.us/vertical/Sites/%7B3436CBED-6A58-4FEF-BFDF-5F9331215932%7D/uploads/Appendix F Railroad Crude Oil Release Rate Analysis.pdf>.

²⁶ DEIR, at p. 4.7-17.

²⁷ DEIR, at p. 4.7-15 to 4.7-16.

to reduce the impacts. The court explained that simply stating there will be no significant impacts because the project incorporates special attributes is not adequate or permissible. Among other things, the device avoids the requirement to adopt an enforceable mitigation monitoring program. (223 Cal. App. 4th at pp. 656-58.)

Similarly, conflating the mitigation measures with Project description shortcuts full disclosure of the potential environmental impacts and risks of the Project, avoids a full exploration of the feasible mitigation measures to address those impacts and risks, and circumvents a mitigation monitoring program, which is essential to make all of these elements enforceable.

Conclusion

We urge the City of Benicia to substantially revise the DEIR for this Project so that it will fully inform the public and the City Council of the full impacts of this Project and analyze all available mitigation to reduce those impacts to a less than significant level.

We appreciate your consideration and would be happy to answer any questions you may have about our comments.

Sincerely,
Sacramento Area Council of Governments

By: _____

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By U.S. Mail and Email MMcKeever@sacog.org

Mr. Mike McKeever
Chief Executive Officer
Sacramento Area Council of Governments
1415 L Street, Suite 300
Sacramento, CA 95814

Re: Union Pacific – Valero Refinery Project

Dear Mr. McKeever:

Union Pacific Railroad Company (UP) appreciates this opportunity to comment on the draft Comment Letter on Valero Crude by Rail Project Environmental Impact Report, Item #14-8-4, which we understand will be considered by the Sacramento Area Council of Governments (SACOG) on August 21, 2014.

UP understands the concern about the risks associated with crude-by-rail and we take our responsibility to ship crude oil, as mandated by federal law, very seriously. UP follows the strictest safety practices and in many cases, exceed federal safety regulations. UP's goal is to have zero derailments and it works closely with the federal Department of Transportation (DOT), the Federal Railroad Administration (FRA), the Pipeline and Hazardous Materials Safety Administration (PHMSA), the Association of American Railroads (AAR) and our customers to ensure it operates the safest railroad possible.

Safety is UP's top priority. The only effective way to ensure safety is through comprehensive federal regulation. A state-by-state, or town-by-town approach in which different rules apply to the beginning, middle, and end of a single rail journey, would not be effective. Congress agrees. Federal regulations completely preempt the application of the California Environmental Quality Act (CEQA) and the mitigation measures proposed in the comment letter drafted by SACOG staff. We encourage SACOG and its member agencies to participate in this rulemaking process.

I. Union Pacific is working closely with other stakeholders to ensure the safety of crude transportation.

Union Pacific is working diligently with federal, state and local authorities to prevent derailments or other accidents. UP spent more than \$21.6 billion in capital investments from 2007-2013 continuing to strengthen our infrastructure. By doing so, it is continuously improving safety for our employees, our communities and our customers.



UP has decreased derailments 23% over the last 10 years, due in large part to our robust derailment prevention and risk reduction process. This process includes, among others, the following measures:

- Union Pacific uses lasers and ultrasound to identify rail imperfections.
- UP forecasts potential failures before they happen by tracking the acoustic vibration on wheels.
- UP performs a real-time analysis of every rail car moving on our system each time it passes a trackside sensor, equaling 20 million car evaluations per day.
- UP employees participate in rigorous safety training programs on a regular basis and are trained to identify and prevent potential derailments.

Union Pacific also reaches out to fire departments as well as other emergency responders along our lines to offer comprehensive training to hazmat first-responders in communities where we operate. Union Pacific annually trains approximately 2,500 local, state and federal first-responders on ways to minimize the impact of a derailment in their communities. UP has trained nearly 38,000 public responders and almost 7,500 private responders (shippers & contractors) since 2003. This includes classroom and hands-on training.

These efforts have paid off. The overall safety record of rail transportation, as measured by the FRA has been trending in the right direction for decades. In fact, based on the three most common rail safety measures, recent years have been the safest in rail history: the train accident rate in 2013 was down 79 percent from 1980 and down 42 percent from 2000; the employee injury rate was down 84 percent from 1980 and down 47 percent from 2000; and the grade crossing collision rate was down 81 percent from 1980 and down 42 percent from 2000.

II. The Federal Government is imposing more stringent requirements for safe transportation of crude oil.

As federal rail authorities recently explained, DOT, through the FRA and PHMSA, “continue[s] to pursue a *comprehensive, all-of-the-above approach* in minimizing risk and ensuring the safe transport of crude oil by rail.” Department of Transportation, *Federal Railroad Administration’s Action Plan for Hazardous Materials Safety* at 1 (May 20, 2014), available at <http://www.fra.dot.gov/eLib/details/L04721>. These efforts include not only scores of regulations governing the safe transportation of hazardous materials, including oil products, found in 49 C.F.R. Parts 171 to 180, but also a host of equipment and operating rules promulgated by FRA, as well as voluntary agreements and Emergency Orders issued over the past year in response to oil spills.

Voluntary Agreement

On February 21, 2014, the nation's major freight railroads and the DOT agreed to a rail operations safety initiative that established new operating practices for moving crude oil by rail. Under the industry's voluntary efforts, railroads are:

- Increasing the frequency of track inspections using high-tech track geometry readers.
- Equipping crude trains with either distributed power or two-way telemetry end-of-train devices. These technologies allow train crews to apply emergency brakes from both ends of the train in order to stop the train faster.
- Using new rail traffic routing technology (the Rail Corridor Risk Management System (RCRMS)) to aid in the determination of the safest and most secure rail routes for trains with 20 or more cars of crude oil.
- Lowering speeds to no more than 40 miles-per-hour in the 46 federally-designated high-threat-urban areas and no more than 50 miles per hour in other areas.
- Working with communities to address location-specific concerns that communities may have.
- Increasing trackside safety technology by installing additional wayside wheel bearing detectors if they are not already in place every 40 miles along tracks with trains carrying 20 or more crude oil cars, as other safety factors allow.
- Increasing emergency response training and tuition assistance.
- Enhancing emergency response capability planning.

These voluntary actions are already being implemented.

Emergency Orders

In a February 25, 2014 Emergency Order, the DOT ordered certain changes in the way petroleum crude oil is classified and labeled during shipment, emphasizing that "with regard to emergency responders, sufficient knowledge about the hazards of the materials being transported [is needed] so that if an accident occurs, they can respond appropriately." February 25, 2014 Emergency Order at 13. And in its May 7, 2014 Emergency Order, the DOT ordered railroads transporting large quantities of crude oil to notify state authorities of the estimated number of trains traveling through each county of the State, provide certain emergency response information required by federal regulations (49 C.F.R. Part 172, subpart G) and identify the route over which the oil will be transported.

Proposed Regulations

On July 23, 2014, the PHMSA proposed enhanced tank car standards, a classification and testing program for crude oil and new operational requirements for trains transporting such crude that include braking controls and speed restrictions. PHMSA proposes the phase out of older DOT 111 tank cars for the shipment flammable liquids, including most Bakken crude oil, unless the tank cars are retrofitted to comply with new tank car design standards. We encourage SACOG to participate in this rulemaking process.

The federal proposal includes:

- Better classification and characterization of mined gases and liquids
- Rail routing risk assessment
- Notification to State Emergency Response Commissions
- Reduced operating speeds
- Enhanced braking
- Enhanced standards for both new and existing tank cars

As the federal government's existing regulations, recent emergency orders, the voluntary agreements and the new regulatory proposals make abundantly clear, regulation of crude transportation is extremely detailed and complex. Union Pacific is actively participating in the efforts to finalize the new regulations and encourages SACOG and its member agencies to do the same. By jointly working to enhance safety we can ensure that the most effective regulations are adopted.

III. A uniform federal regulatory program is essential to ensure the safe transportation of crude oil.

As the complex regulatory program described above illustrates, clear and uniform federal regulation is needed to ensure that crude oil continues to be transported safely. With respect to rail transportation, federal law preempts most state and local regulation of rail activities.

Uniform standards and rules for railroad operations allow the efficient movement of goods among the states. If each state or local community were allowed to impose its own regulations on railroad operations, rail transportation could grind to a halt, because train crews would need to apply different rules or perhaps use different equipment as they move from place to place.

As stated by the U.S. Congress:

Subjecting rail carriers to regulatory requirements that vary among the States would greatly undermine the industry's ability to provide the "seamless" service that is essential to its shippers and would weaken the industry's efficiency and competitive viability.

The U.S. Congress went on to state that

federal regulation of railroads is intended to address and encompass all such regulation and to be completely exclusive. Any other construction would undermine the uniformity of Federal standards and risk the balkanization and subversion of the Federal scheme of minimal regulation for this intrinsically interstate form of transportation.

Congress has therefore established federal preemption under several statutes governing rail transportation. As the U.S. Solicitor General has explained, Congress recognized that the federal government has "diverse sources of statutory authority . . . with which to address rail safety issues," and therefore "preemption had to apply to regulations issued" under any of those sources, for "otherwise, the desired uniformity could not be attained." Brief for United States as Amicus Curiae at 6, *Public Util. Comm'n of Ohio v. CSX Transp., Inc.*, 498 U.S. 1066 (1991) (No. 90-95), available at <http://www.justice.gov/osg/briefs/1990/sg900560.txt>; see also H.R. Rep. No. 1194, 91st Cong., 2d Sess. 19 (1970) ("[S]uch a vital part of our interstate commerce as railroads should not be subject to [a] multiplicity of enforcement by various certifying States as well as the Federal Government.")

Preemption under ICCTA

In 1996, Congress passed the Interstate Commerce Commission Termination Act (ICCTA), which broadened the preemptive effect of federal law and created the federal Surface Transportation Board ("STB"). The driving purpose behind ICCTA was to keep "bureaucracy and regulatory costs at the lowest possible level, consistent with affording remedies only where they are necessary and appropriate." H.R. Rep. No. 104-331, at 93, reprinted in 1995 U.S.C.C.A.N. 793, 805 (emphasis added).

Congress vested the STB with broad authority over railroad operations. Indeed, STB has "exclusive" jurisdiction over "(1) transportation by rail carriers . . . and (2) the construction, acquisition, operation, abandonment, or discontinuance of . . . tracks, or facilities." 49 U.S.C. § 10501(b).

"Transportation" by rail carriers broadly includes:

(A) a locomotive, car, vehicle, vessel, warehouse, wharf, pier, dock, yard, property, facility, instrumentality, or equipment of any kind related to the movement of passengers or property, or both, by rail, regardless of ownership or an agreement concerning use; and

(B) services related to that movement, including receipt, delivery, elevation, transfer in transit, refrigeration, icing, ventilation, storage, handling, and interchange of passengers and property. 49 U.S.C. § 10102(9)(emphasis added).

Further, ICCTA contains an express preemption clause: “the remedies provided under this part with respect to the regulation of rail transportation are exclusive and preempt the remedies provided under Federal and State law.” 49 U.S.C. § 10501(b). “It is difficult to imagine a broader statement of Congress’s intent to preempt state regulatory authority over railroad operations.” (*CSX Transp., Inc. v. Georgia Public Serv. Com’n* (N.D.Ga. 1996) 944 F.Supp. 1573, 1581 (CSX).) This provision continues the historic extensive federal regulation of railroads. (*Fayard v. Northeast Vehicle Services, LLC* (1st Cir. 2008) 533 F.3d 42, 46; see *Chicago & N.W. Tr. Co. v. Kalo Brick & Tile* (1981) 450 U.S. 311, 318 [“The Interstate Commerce Act is among the most pervasive and comprehensive of federal regulatory schemes.”].)

Over the years, many courts have addressed challenges by state and local authorities seeking to regulate some aspect of rail operations. The courts have consistently upheld Congress’s intention that no such regulation can be allowed. As one court stated, “freeing the railroads from state and federal regulatory authority was the principal purpose of Congress” in adopting ICCTA. *Wisconsin Central Ltd. v. City of Marshfield*, 160 F.Supp.2d 1009, 1015 (W.D.Wis. 2000).

Preemption under the Federal Railroad Safety Act

Congress directed in the Federal Railroad Safety Act (“FRSA”) that “[l]aws, regulations, and orders related to railroad safety and laws, regulations, and orders related to railroad security shall be nationally uniform to the extent practicable.” 49 U.S.C. § 20106(a)(1). To accomplish that objective, Congress provided that a State may no longer “adopt or continue in force a law, regulation, or order related to railroad safety” once the “Secretary of Transportation . . . prescribes a regulation or issues an order covering the subject matter of the State requirement.” *Id.* § 20106(a)(2). State or local hazardous material railroad transportation requirements may be preempted under the FRSA without consideration of whether they might be consistent under the Federal hazmat law. *CSX Transportation, Inc. v. City of Tallahoma*, No. 4-87-47 (E.D. Tenn. 1988); *CSX Transportation, Inc. v. Public Utilities Comm’n of Ohio*, 701 F. Supp. 608 (D. Ohio 1988), affirmed, 901 F.2d 497 (6th Cir. 1990), cert. denied 111 S.Ct. 781 (1991).

Under Section 20106(a)(2), these DOT regulations and orders preempt state and local regulations relating to the same subject matter. The text of § 20106 is unambiguous. It plainly states that the terms of § 20106 govern the preemptive force of all DOT regulations and orders related to rail safety. DOT has recognized that “[t]hrough [the Federal Railroad Administration] and [the Pipeline and Hazardous Materials Safety Administration], DOT comprehensively and intentionally regulates the subject matter of the transportation of hazardous materials by rail

These regulations leave no room for State . . . standards established by any means . . . dealing with the subject matter covered by the DOT regulations.” 74 Fed. Reg. 1790 (Jan. 13, 2009).

Preemption under the Pipeline Safety Improvement Act

The Pipeline Safety Improvement Act, which created the PHMSA, includes an express preemption provision prohibiting any state or local agency from regulating “the designing, manufacturing, fabricating, inspecting, marking, maintaining, reconditioning, repairing, or testing a package, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.” 49 U.S.C. §5125. Thus, any mitigation measure restricting or specifying the type of equipment to be used in transporting crude by rail is expressly preempted.

DOT has stated that “[t]hrough [the Federal Railroad Administration] and [the Pipeline and Hazardous Materials Safety Administration], DOT comprehensively and intentionally regulates the subject matter of the transportation of hazardous materials by rail These regulations leave no room for State . . . standards established by any means . . . dealing with the subject matter covered by the DOT regulations.” 74 Fed. Reg. 1790 (Jan. 13, 2009).

IV. Neither SACOG nor its member agencies has authority to impose the mitigation measures or conditions proposed in the draft Comment Letter on Valero Crude by Rail Project Environmental Impact Report.

The courts have found that ICCTA preempts state and local environmental, land use and planning regulations. For example, in *City of Auburn*, the Ninth Circuit affirmed STB’s ruling that local environmental review regulations could not be required for BNSF’s proposal to reacquire and reactivate a rail line. 154 F.3d 1025, 1031 (9th Cir. 1998). The court found that the State of Washington’s environmental review statute – a statute that is similar to CEQA – could not be applied to a rail project. Similarly, the Second Circuit found that ICCTA preempted a state requirement for a railroad to obtain a pre-construction environmental permit for a transloading facility because it would give the local governmental body the ability to deny or delay the right to build the facility. *Green Mountain Railroad Corporation v. State of Vermont*, 404 F.3d 638, 641-45 (2d Cir. 2005). In effect, the court found that if a permit allowed the state or local agency to exercise discretion over the rail project, that permit requirement would be preempted.

The California Court of Appeal laid out this same logic in its recent decision in *Town of Atherton v. California High Speed Rail Authority* (filed July 24, 2014), stating:

[S]tate actions are ‘categorically’ or ‘facially’ preempted where they ‘would directly conflict with exclusive federal regulation of railroads.’ [Citations.] Courts and the STB have recognized ‘two broad categories of state and local actions’ that are categorically preempted regardless of the context of the action: (1) ‘any form of state or local permitting or preclearance that, by its nature, could be used to deny a railroad the ability

to conduct some part of its operations or to proceed with activities that the [STB] has authorized' and (2) 'state or local regulation of matters directly regulated by the [STB]—such as the construction, operation, and abandonment of rail lines; railroad mergers, line acquisitions, and other forms of consolidation; and railroad rates and service.' [Citations.] Because these categories of state regulation are 'per se unreasonable interference with interstate commerce,' 'the preemption analysis is addressed not to the reasonableness of the particular state or local action, but rather to the act of regulation itself.'

The California Attorney General endorsed this application of the law and specifically argued that "[c]ourts and the STB uniformly hold that the ICCTA preempts state environmental pre-clearance requirements such as those in the California Environmental Quality Act (CEQA)." Letter dated August 9, 2013 from Attorney General Kamala Harris to the Hon. Vance W. Raye, Presiding Justice, California Court of Appeal for the Third District at 3.

Additional cases and STB decisions that have struck down state and local environmental and land use regulations include: *Norfolk Southern Railway Company v. City of Austell*, 1997 WL 1113647, *6 (N.D.Ga. 1997) ("ICCTA expresses Congress's unambiguous and clear intent to preempt [city's] authority to regulate and govern the construction, development, and operation of the plaintiff's intermodal facility"); *Soo Line R.R. v. City of Minneapolis*, 38 F.Supp.2d 1096, 1101 (D. Minn. 1998) ("The Court concludes that the City's demolition permitting process upon which Defendants have relied to prevent [the railroad] from demolishing five buildings . . . that are related to the movement of property by rail is expressly preempted by [ICCTA]."); *Norfolk S. Ry. v. City of Austell*, 1997 WL 1113647 (N.D. Ga. 1997) (local zoning and land use regulations preempted); *Village of Ridgely v. New York, Susquehanna & W. Ry.*, 750 A.2d 57 (N.J. 2000) (complaints about rail operations under local nuisance law preempted); *Burlington Northern and Santa Fe Ry. v. City of Houston*, S.W.3d, 2005 WL 1118121 (Tex. App. 2005) (interpretations of state condemnation law that would prevent condemnation of city land required for construction of rail line preempted).

The *Atherton* court noted that state and local agencies may exercise authority over the development of railroad property to the extent that such regulations:

can be approved (or rejected) without the exercise of discretion on subjective questions. Electrical, plumbing and fire codes, direct environmental regulations enacted for the protection of the public health and safety, and other generally applicable, non-discriminatory regulations and permit requirements would seem to withstand preemption.

The limited exception for routine, non-discretionary permits to meet building and electrical codes is not relevant here. Instead, the cases have clearly established that state and local agencies have no authority to impose permitting or land use requirements that "would give the local governmental body the ability to deny or delay the right to build the facility."

V. Conclusion

Like the transloading facility in the *Green Mountain* case and the intermodal facility in the *Norfolk Southern* case, the proposed loading rack and tracks at the Valero Refinery are essential components of rail transportation. As noted above, "transportation" includes a "yard, property, facility, instrumentality, or equipment of any kind related to the movement of passengers or property, or both, by rail, regardless of ownership. . ." as well as "receipt, delivery, elevation, transfer in transit, . . . storage, [and] handling" of goods. Valero's proposed project falls squarely within the scope of this definition and the Congress and the courts have made it abundantly clear that "no state or local governmental agency may delay or deny the right to build" such a facility.

As noted above, Union Pacific supports the federal regulatory efforts to ensure that crude transportation is carried out safely. We encourage SACOG and its member agencies to participate in the rulemaking process. Neither SACOG nor its member agencies can go it alone—federal law and common sense demand that a uniform national approach be adopted and applied to ensure safety.

Regards,

UNION PACIFIC RAILROAD COMPANY

A handwritten signature in black ink, appearing to read "Melissa B. Hagan", with a stylized flourish at the end.

Melissa B. Hagan

cc: Ms. Amy Million, City of Benicia Planning Commission

OIL BY RAIL DISCUSSION
Prepared by Fire Chief Rick Martinez, West Sacramento Fire Department
7/22/14

Due to the dramatic growth of domestic oil exploration and production in recent years, the transportation of crude by rail (CBR) is an emerging issue of significant concern throughout the region and the state. In 2012, about 70% of oil imported by California refineries arrived by ship through maritime terminals while only 0.3% was imported by rail. In one year between 2012 and 2013, the total volume of crude oil imports increased from 1 million to 6.3 million barrels. By 2016, the amount of oil imported by rail to California could equal up to 25% of total imports. With the significant increase in shipments of Bakken crude oil through the region, fire departments are faced with a heightened possibility of having to manage and mitigate a potentially large-scale and catastrophic incident. While some recent high profile incidents have placed a spotlight on crude oil shipments from North Dakota's Bakken shale, it is important to remain cognizant that Bakken crude, in general terms, is simply another flammable/combustible liquid, for which any first responder organization should be trained to mitigate. Thus, while CBR is not necessarily a new type of hazard, the increased frequency and quantity has changed significantly to the point where a CBR incident could easily and quickly overwhelm local fire department and HazMat team capabilities. In an effort to prevent and prepare for such an event, the rail industry and legislators are putting forth efforts to diminish the existing gaps in emergency responder preparation and response, as well as general management of commodities by rail. The following list details some of the measures that are being addressed with this regard.

1. Advanced Notification of Shipments

The U.S. Department of Transportation's (DOT) Emergency Order DOT-OST-2014-0067 generally requires transporters of one million gallons or more of Bakken crude oil to notify the State Emergency Response Commission (SERC) of the expected movement of such trains through the counties within the State. As required and confirmed by the Region IV Local Emergency Planning Committee (LEPC) Chair, the transporters of crude oil have been notifying SERC and subsequently the LEPC, however this information is frequently regarding shipments that have already passed through and is in a vague format, and thus it is of little use. Additionally, there have been issues wherein notifications from the LEPC to the responding agencies have not been made, and corrective efforts are underway for this particular issue. Lastly, the importance of obtaining real-time "pull" information, rather than "push" notification from the transporters is of paramount importance. In other words, emphasis needs to be placed upon enabling first responders to "pull" real-time information on the specific incident they are responding to as opposed to being inundated with a daily barrage of "pushed" information.

2. Limitations on Storage of Shipments in Urbanized Areas

While local jurisdictions carry a majority of the burden and risk of a local rail incident, they have no authority in the movement of commodities on the Federal Railroad Administration (FRA) and California Public Utilities Commission (CPUC) regulated main line. Local jurisdictions may however, have jurisdiction over private rail sidings. Efforts could be made at the legislative level to empower local jurisdictions with increased authority to regulate storage of shipments in urbanized areas.

3. Support for Training and Outfitting Emergency Response Crews

Per the 2014 Rail Operations Safety Initiative , the rail industry is voluntarily providing CBR training for emergency responders at the Security and Emergency Response Training Center (SERTC) in Pueblo, Colorado. Many regional departments will be participating in the training being provided in mid-November of this year. The program will provide the first responder basic knowledge, skills, and abilities to respond to incidents involving CBR. While this training is a positive first step, it does not address the first responder community as a whole. Efforts should be made to bring training to each local jurisdiction and formatted to reflect the hazards and capabilities that are specific to that jurisdiction.

Furthermore, the Safety Initiative loosely addresses emergency response resources for the rail transporters; however, it does not address the resources (i.e. PPE, firefighting foam, etc.) required by first responders who will be on scene prior to the arrival of any transporter support resources. These resources are both unique and costly, and require ongoing maintenance. With most agencies facing reduced budgets to meet basic service demands there is no available funding to equip and maintain the necessary resources. Therefore, it is reasonable to assert that the costs that are incurred by local governments and first responders to deter this increased threat should be borne by those causing the exposure. Within the Bay Area and the greater Sacramento region the Petrochemical Mutual Aid Organization PMAO maintains the resources and expertise necessary to mitigate a petro-chemical incident. The Safety Initiative could include a requirement for refiners and transporters to integrate more closely with first responders by developing response plans and pre-positioning the necessary resources in the event of an incident.

4. Utilization of Best Available Equipment and Protocols

Per a 2014 DOT Safety Advisory, the FRA provided notice to rail transporters to take additional precautionary measures to enhance the safe shipment of Bakken crude. With that, the railroad industry is proposing to increase the federal tank car design and construction standards for new tank cars used to transport crude oil. This information is detailed in the Pipeline and Hazardous Materials Safety Administration's (PHMSA) HM-251. A few items being considered are shell and head shields thickness increases, roll-over protection for top fittings, reclosing pressure relief devices, and others.

5. Implementation of Positive Train Controls to Prioritize Areas with Crude Oil Shipments

Positive Train Control (PTC) is an advanced technology that incorporates GPS tracking to automatically stop or slow trains prior to an accident. In particular, Positive Train control is designed to prevent train-to-train collisions, derailments caused by excessive speed and unauthorized movement of trains onto sections of track where repairs are being made or as a result of a misaligned track switch. The Rail Safety Improvement Act of 2008 currently addresses the requirement for positive train controls, which are required to be in place by the end of 2015. In the interim however, priority should be given to upgrading/updating with PTC those lines which are currently carrying large volumes of oil by rail.

Summary

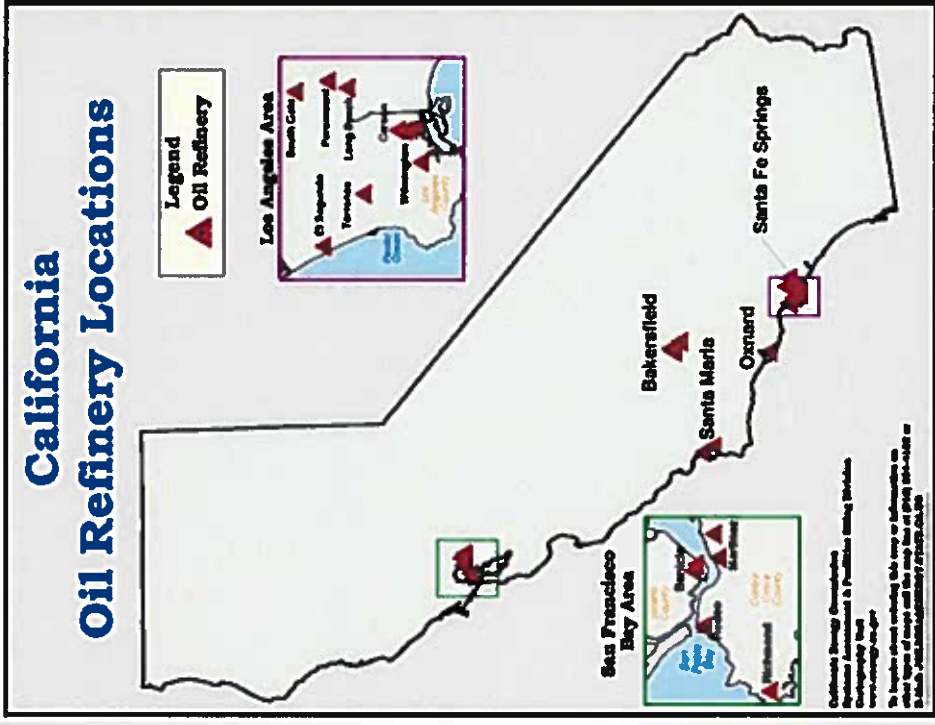
Transportation of crude by rail has dramatically increased in recent years and as the industry forecasts, will likely continue to increase in California and across the nation. Due to the increased oil production from the Bakken shale and other oil fields combined with the demand by the petro chemical industry, it does not seem this threat will diminish any time soon. While current regulations and industry practices

are not adequate given this current boom, support is needed to provide the appropriate tools, training, and regulation to assure the safe management of this commodity. It will require assistance from all fronts in a collective effort to achieve this goal.



Key Elements - Refineries

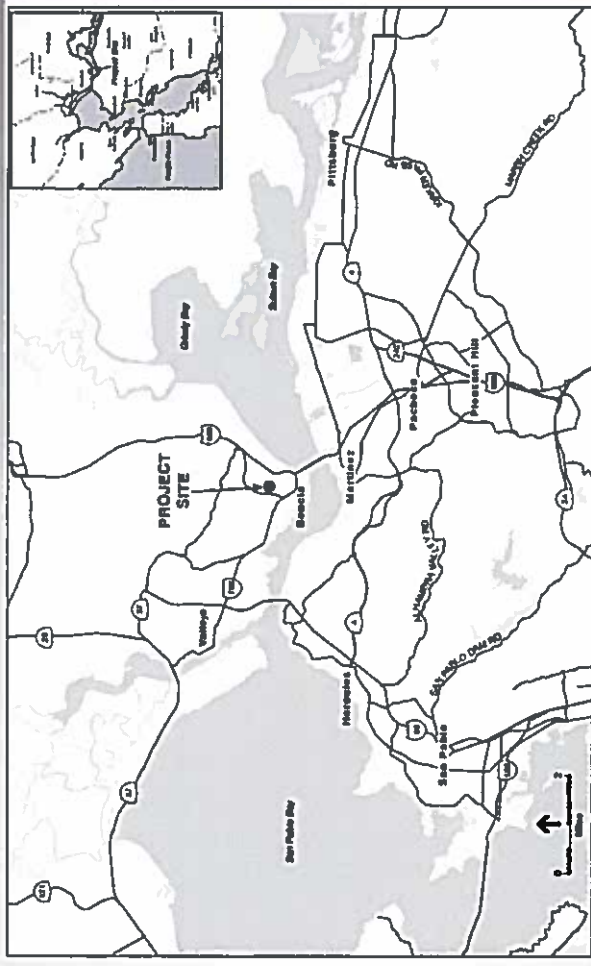
- 3 primary refinery locations
- 13 refineries produce transportation fuels that meet California standards
- 8 smaller refineries produce asphalt and other petroleum products
- California refineries provide majority of transportation fuel to neighboring states
- Process over 1.6 million barrels per day of crude oil





Crude-by-Rail Projects – Northern California

- Valero – Benicia Crude Oil By Rail Project - **Planned**
 - Benicia refinery
 - Up to 70,000 BPD
 - Construction will take 6 months
 - Could be operational by 2015
 - Draft EIR released June 17, 2014
 - Lead agency – City of Benicia
 - http://www.ci.benicia.ca.us/index.asp?Type=B_BASIC&SEC={FDE9A332-542E-44C1-BBD0-A94C288675FD}



SOURCE: EIA
Benicia Valero CBR, 2011/10/01
Figure 3-1
Project Location



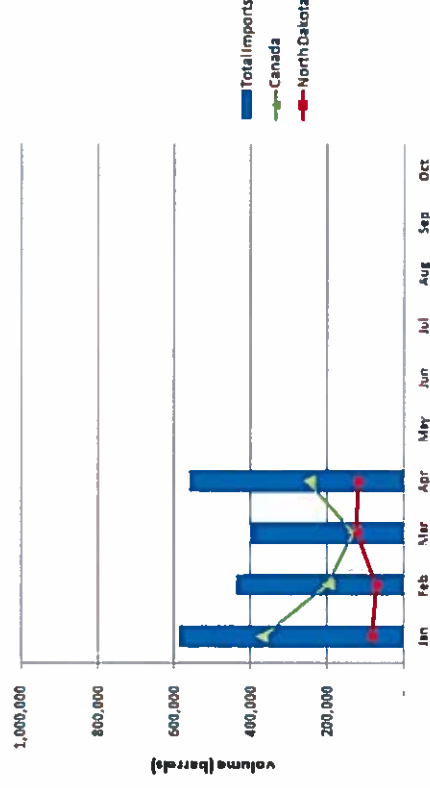
IEPR Workshop – Trends in Sources of Crude Oil



California CBR Imports Expected to Grow

- 2014 CBR imports, first 4 months
 - 1.971 MM barrels
 - Average of 16,431 barrels/day
 - 90.5 percent higher than same period in 2013
- Five CBR projects seeking permits
 - 2 Northern California
 - 2 Bakersfield area
 - 1 San Luis Obispo County
- Could grow up to 23 percent by 2016, assuming:
 - Permits issued, customers signed up, financing approved, constructed & operated at capacity

2014 Monthly Crude Oil Imports by Rail

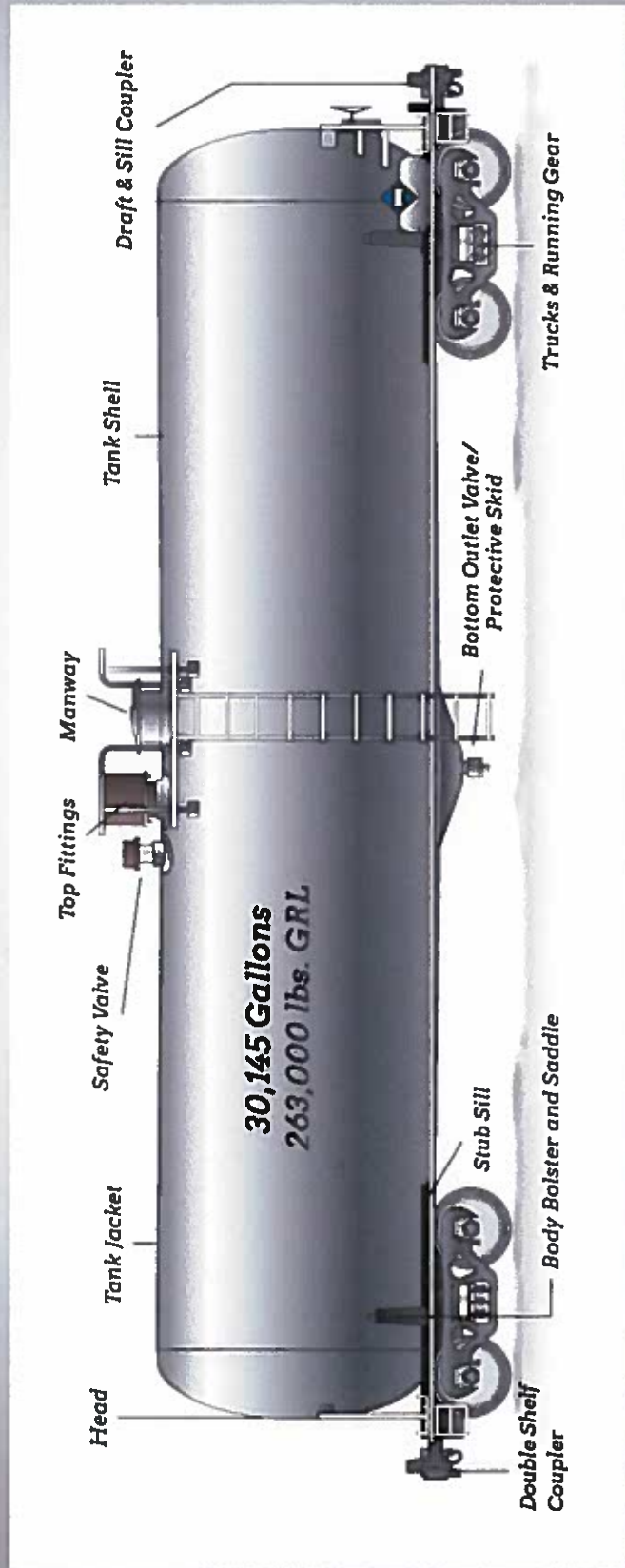


Sources: PIRRA data, Energy Commission Analysis

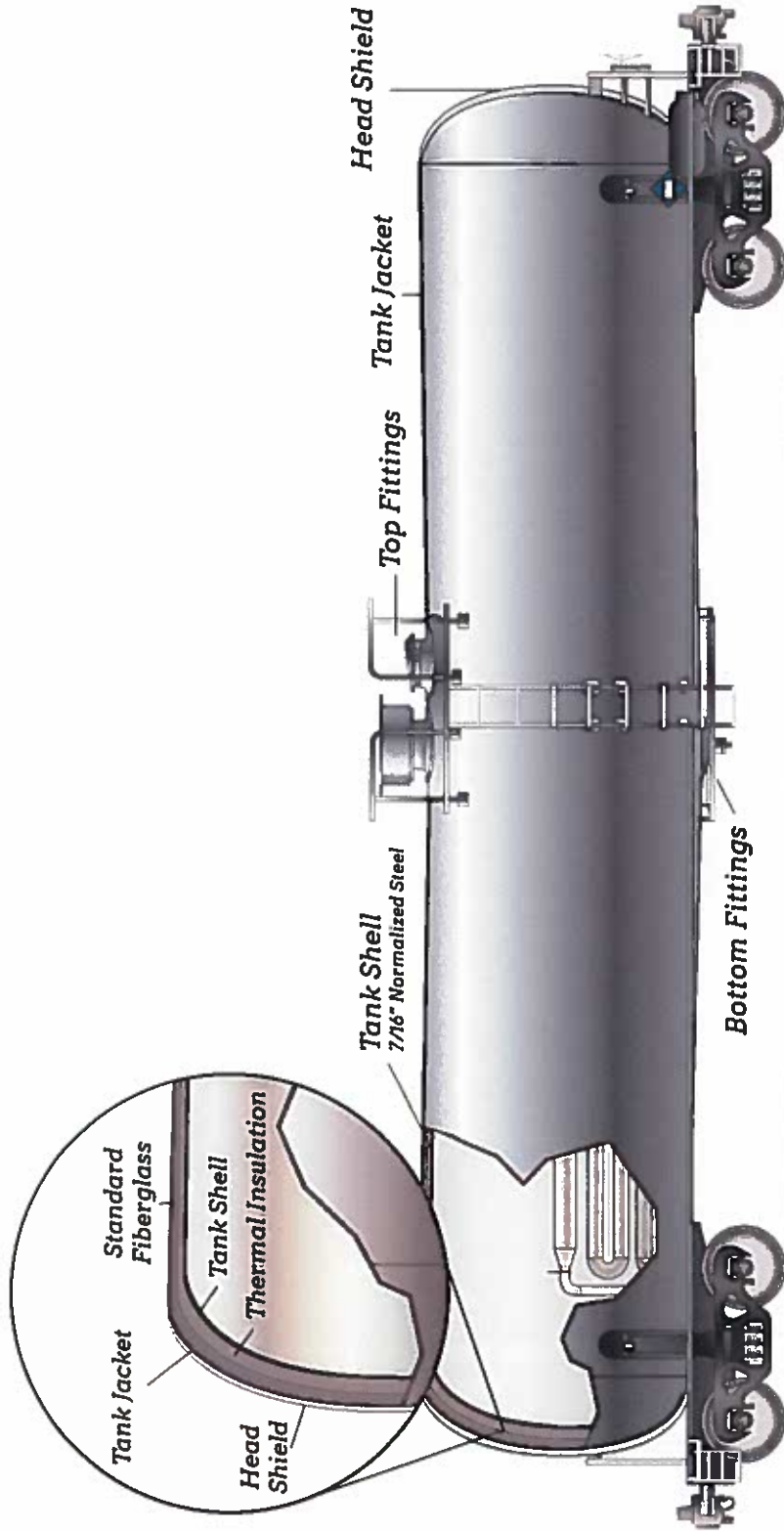


IEPR Workshop – Trends in Sources of Crude Oil

Legacy Tank Car



Proposed New Tank Car



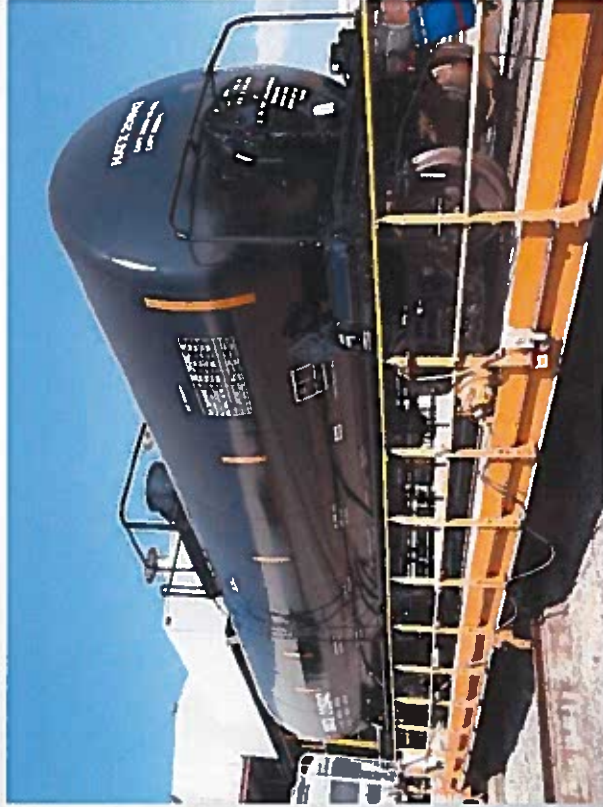
Crude Oil Tank Car Fleet – End of 2013

■ Total Fleet:	43,750
■ CPC-1232 Compliant Tank Cars	14,350
■ Legacy Tank Cars	29,400



Crude Oil Fleet – End of 2015

- **Total Fleet:** **86,550**
- **CPC-1232 Compliant Tank Cars** **57,200**
- **Legacy Tank Cars** **29,350**



Union Pacific in California



3,267 Miles of Track



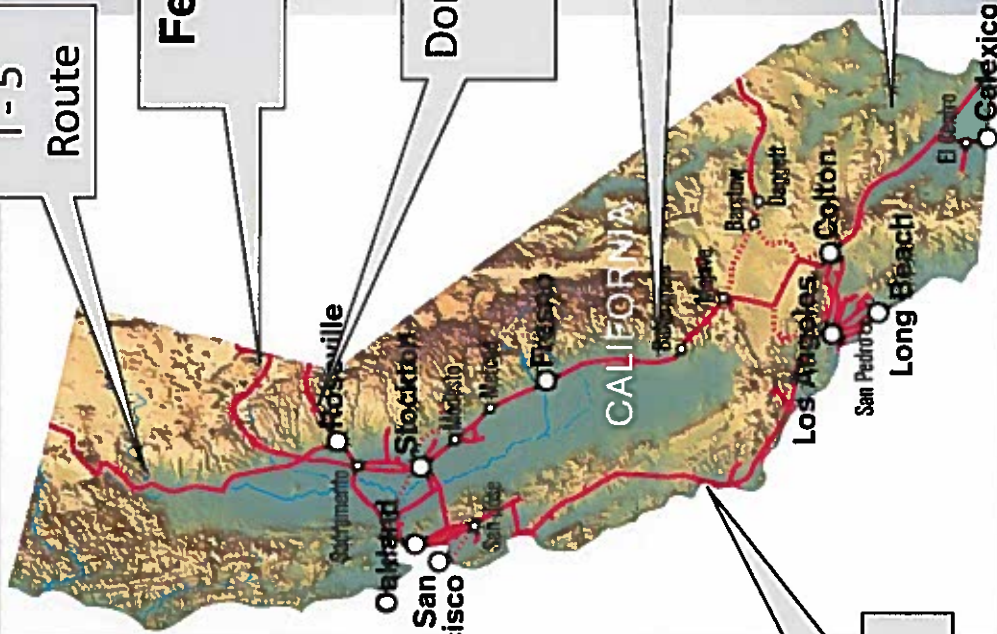
4,860 Employees



\$429 M Annual Payroll



\$326.7 M Capital
Spending



**Feather River
Route**

Donner Pass Route

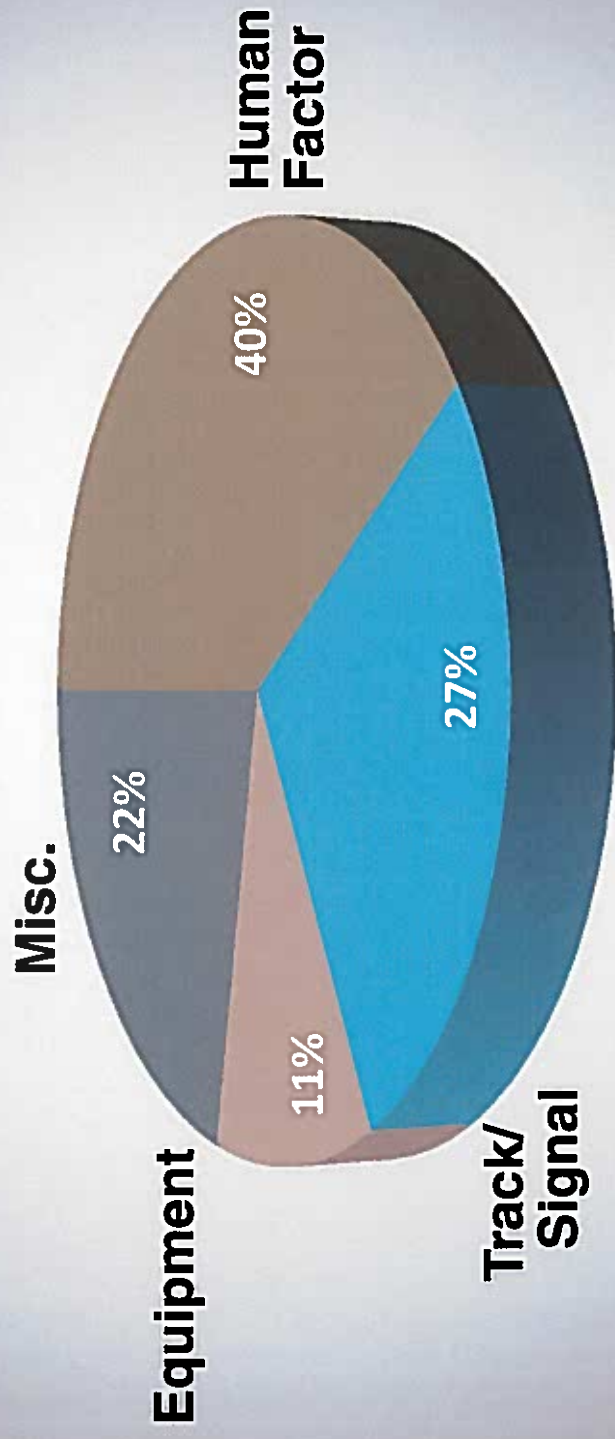
**San Joaquin Valley
Line**

Sunset Route

Coast Line

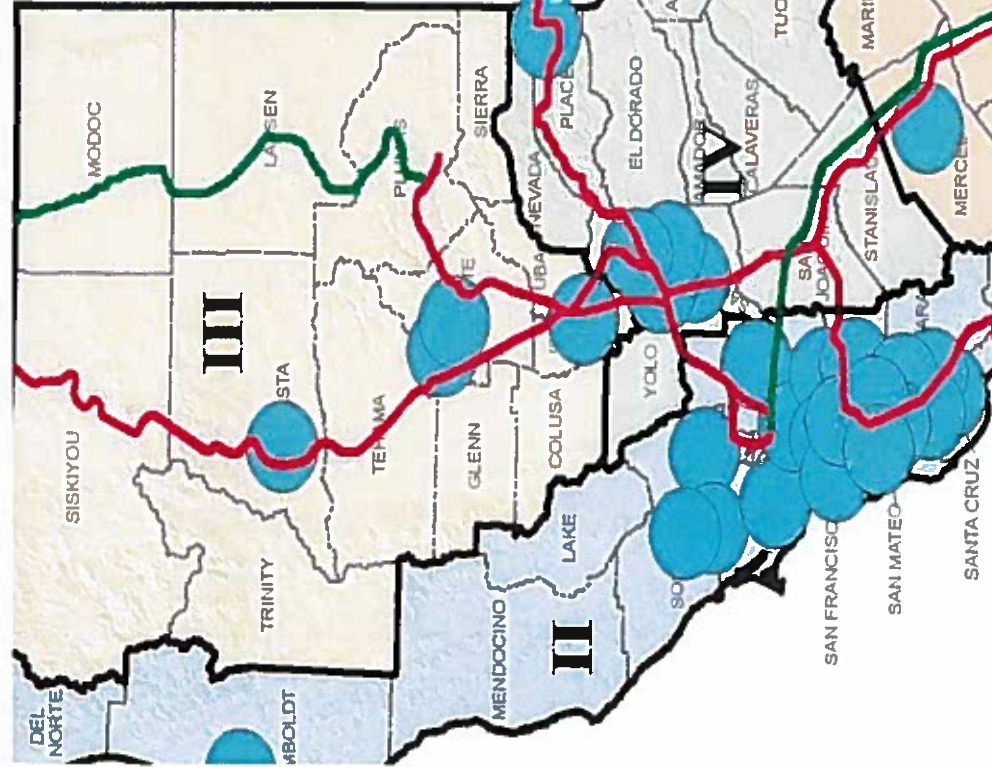
Prevention: Four Main Causes for Derailments

BNSF Reportable Train Accident Causes - 2013



PREVENTION

- Regulate storage of shipments on side rails.
- Implement positive train controls on all CBR trains.



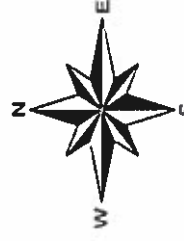
Certified Hazardous Material Teams



as of 4 - 2014

Cal OES

RESPONSE COVERAGE



Agency	Unit #
Alameda County Fire	#1
Alameda County Fire	#12
Alameda County Fire	#16
Alameda County Fire	#24
Alameda County Fire	#30
Alameda County Fire	#40
Alameda County Fire	#41
Alameda County Fire	#42
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Alameda County Fire	#95
Alameda County Fire	#96
Alameda County Fire	#97
Alameda County Fire	#98
Alameda County Fire	#99
Alameda County Fire	#100

Response: First Responder Coordination

- Shipment Information Access by First Responders before the train enters the local community.
- Training First Responders locally, eliminates the overtime cost for local agencies.
- Require improved design tank cars for transport of crude oil in suburban and urban communities.