

**CBR Information Request
Responses
November 26, 2013**

	VALERO COMMENTS
<p><u>Rail Road Related Information</u></p>	
<p>2. We have found the statement below from this article; can UP provide what they would/will do for our project? http://www.eenews.net/stories/1059982047</p> <p style="padding-left: 40px;"><i>"US. rail operators are required to conduct a safety assessment when plotting routes for hazardous materials such as crude oil, taking into account factors such as trip length, proximity to population centers and traffic density. FRA, in conjunction with other federal agencies, can force railways to use alternate routes if necessary. "</i></p>	<p>Reference UPRR response, dated September 18, 2013 section 'How Railroads are Regulated.'</p> <p>Please also reference 49 CFR 172, provided at the following link: Hazardous Materials Regulation</p>
<p>3. We have requested additional info on tank cars and accidents. This was an open ended request. We know now that the cars are DOT 111 type. We don't have any UP statistics for rail car accidents, in general and/or specifically involving hazardous or crude oil. Also, we don't know the volume of train movement along the mainline between Roseville and Benicia and any associated history of accidents in that corridor. Please provide data on these items.</p>	<p>Reference UPRR response, dated November 18, 2013, section 'Safety.'</p> <p>Please also reference the following: AAR Information regarding Safe Movement of Hazardous Materials</p>
<p>5. We sent these paragraphs to Valero requesting help to fill in the holes in these paragraphs (or provide similar info):</p> <p style="padding-left: 40px;"><i>tank car is 0.38 gallons spilled/per million barrel [I] miles. The risk for an oil spill of more than xxx gallons from a tank car is ??/per tank car mile. Given that the distance from Roseville to Valero is 68 miles, and assuming that the train is 50 tank cars, the risk of an oil spill of any size from a tank car on the train is(= 50 x 68</i></p>	<p>Reference UP response document, section 'Safety.' Note that this response is not in the exact format as the question. However, the response responds to the question.</p> <p>National statistics provide the most robust estimates for spills and releases because such events are so rare that relying on local statistics could mask the incident rate. For information on national spill and accident rates, please reference the UP letter dated September 18, 2013 and also, AAR Information regarding Safe Movement of Hazardous Materials</p>

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<p><i>miles x ??) and the risk of an oil spill of more than xxx gallons from a tank car on the train is (= 50 x 68 m³lesx.?.?\. 1</i></p> <p><i>Historically, the rail segment from Valero to Roseville {2} has an accident rates of 0.0xxx per train. For similar trains that also handle hazardous materials, such as ethanol (which is blended into California gasoline), the accident rate is 0.0xxx per train or 0.0xxx per train-mile. For comparison purposes, in California there have been no catastrophic accident or spills involving ethanol (true?) from similar rail transport, which carried in excess of 8,000 to 10,000 rail car equivalents of ethanol[3] in the state in 2008, and expect to carry double that amount in 2015. [1]1 Barrel= 42 gallons.</i></p> <p><i>[2] This segment is designated as a Restricted Access -- Mainline Corridor, in Guidelines for Rail Service to New Industry Locations on Union Pacific's Mainline Seattle</i></p>	<p>The AAR states “99.9977% of all rail hazmat shipments reached their destination without a release caused by a train accident”. Therefore, the likelihood of one release (of any size) to occur during rail transport for this project would be 1 in 120 years. Additionally the AAR states “train accidents with a hazmat release have declined 26% since 2000, and 78% since 1980 (through 2012), while hazmat train accident rates have declined 38% since 2000, and 91% since 1980 (through 2010).” This demonstrates not only a very low incident rate, but also continued improvement in safe rail transportation through the years.</p>
<p>6. We need a detailed description of project-related rail road operations. This needs to include a) a description of how the tank cars would be marshaled in Roseville (via unit trains? or coming in as partial shipments on other trains, or ?); b) a description of the route and approximate speeds from Roseville to Benicia; c) a description of the process of in and near Benicia of train movements from the main line (assumed to be in use for the Project) into the Refinery, a figure showing the exact rail spurs to be used for this within Benicia; d) a description of how the empty rail cars are removed from the Refinery and returned to some point for refilling/reuse. We've attached (Attachment 1) an example of this kind of discussion from the WestPac DEIR. We need some information similar to this and more information as described above.</p>	<p>A typical rail car handling scenario is described below:</p> <ol style="list-style-type: none"> 1. Up to a 100 car unit train arrives at the Roseville railyard. 2. UPRR-operated locomotives would move up to a 50 car unit train directly from the Roseville railyard via the Martinez Sub and onto the Valero unloading racks on Valero property, traveling at up to 50 mph. 3. When crossing Park Road the trains would travel at approximately 5 mph. Each railcar is nominally 60 feet long, with a capacity of approximately 700 barrels and a maximum estimated load of 211,600 pounds.

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4. Up to twenty-five railcars would be spotted on the proposed unloading tracks located on each side of the proposed unloading rack. UPRR would leave its locomotives attached to each 25 railcar train.
5. UPRR would turn over operation of the locomotives to the onsite workers for operational use.
6. The refinery would unload the delivered railcars. A check valve would be installed onto each vent valve on the top of each railcar. The vent valve on the top of each railcar would be opened and the accompanying check valve would only allow fresh air into each railcar. At each end car and on approximately every 8 railcars in the 25 railcar string, a hose would be connected from the railcar's vent connection to a separate "equalization header". The equalization header would ensure the vapor spaces above the stored liquid crude in the railcars is equalized between the railcars. Individual drain hoses would be manually connected to the bottom of each railcar by onsite workers.
7. The refinery would drain the contents of each railcar by gravity into a collection pipe (collection header) and then pump the contents directly into storage tankage located in the refinery's crude storage tank field.
8. After the railcars are emptied, the empty railcars would be moved onto the departure spur on refinery property adjacent to the unloading rack, where the train of up to 50 empty railcars would be reassembled in preparation for transport off-site.
9. Prior to departure, UPRR and refinery personnel would conduct a safety inspection and ready the train for departure.
10. UPRR would transfer the 50 empty railcar train across Park Road and then east on the Martinez Sub for set out at the Del Paso siding just west of Roseville. UPRR would assemble up to a 100 empty railcar train and transfer it to accept new loads.

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	<p>Steps 2 through 10 would take approximately 8 to 10 hours for 50 rail cars. The proposed Project would result in up to four 50-car train crossings of Park Road per day (two trips into the Refinery and two trips out). Based on UPRR's proposed service plans, UPRR anticipates delivery of one full 50 railcar train and pull out one empty 50 railcar train between the hours of 8:00 PM and 5:00 AM. Depending on future demand, a second 50 railcar train could either be scheduled for delivery and an empty 50 railcar train pulled out during this time period or during other hours considering factors such as traffic flow. A train with 200 feet of locomotive and 50 railcars in length would take about 7.3 minutes to cross Park Road at a speed of 5 mph. The at-grade crossing traffic controls provide a 30-second buffer time before and after each train crossing on Park Road. Each 50 railcar train movement is estimated to block traffic on Park Road for approximately 8.3 minutes. Operations noted in Steps 1 through 10 would occur 24 hours per day/7 days per week/365 days per year. These operations are very dynamic and subject to change based on changing business conditions.</p>
<p>7. We need a description of what procedures are in place and actions taken by UP in the event of a release of crude oil from the tank cars either on to the ground or water body. In addition, what actions would UP take should a release of crude oil occur within a sensitive area, e.g., similar to Suisun Marsh etc.</p>	<p>Reference UP Response Document, section 'Crude Movements'</p> <p>Please also reference the following Union Pacific information: Securing the Chemicals Our Customers Produce, Chemical Transportation Safety, Chemical Transportation Safety Update and FRA Emergency Order 28.</p>
<p>11. Any commitment to, or any agreement with UP, improvements to the Park Road crossing, such as, crossing arms on all sides of the crossing, and other potential improvements.</p>	<p>Valero response was forwarded via email 11/18/2013.</p>
<p>Geology</p> <p>12. Any new geological studies or data on the project site</p>	<p>Geotech report was forwarded via email 11/19/2013.</p>

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General	
<p>24. There have been numerous public comments pertaining to the impacts of processing the crude brought in by train, most recently pertaining to the production of Petcoke. Please explain the relationship between the CBR project and petcoke production.</p>	<p>Reference 'Petroleum Refining 101'.</p> <p>Refinery coke production is constrained by two important factors: BAAQMD permit limit and hardware handling capacity. These factors are routinely evaluated and verified so that a compliant operation can be maintained. The BAAQMD enforces the permit limit and a BAAQMD permit is required to modify hardware. The CBR project is not seeking a modification to refinery hardware beyond that requested in the permit application. Because refinery process hardware will not change with the CBR project, coke production will continue to be constrained by these historical factors.</p>