

July 10, 2014

Via Email to: docket@energy.ca.gov

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 14-IEP-1F; Additional Recommendations for Oil By Rail Safety in California

Dear Commissioners Weisenmiller, Scott, Hochschild, McAllister, and Douglas:

On behalf of the Natural Resources Defense Council (NRDC), the City of Berkeley and the undersigned groups, representing over 500,000 members, activists, and residents in California, we write to submit comments on the policy recommendations included in the report “Oil by Rail Safety in California” by the State of California Interagency Rail Safety Working Group (“the report”). The report was released on June 10, 2014, and includes background on the rise of crude-by-rail transport in California and an overview of the unique risks that crude-by-rail transport poses to California, along with recommendations for actions the state should take to address those risks. We commend the state for taking this first step towards addressing this urgent issue, and particularly are impressed with recommendations to increase support to local emergency responders and extend the Office of Spill Prevention and Response (OSPR) fee to apply to rail shipments of crude. There are a number of areas, however, where we are concerned that the Working Group’s recommendations are not aggressive enough to address the full extent of the serious safety, public health, and environmental risks of crude-by-rail.

As you know, crude-by-rail transport is on the rise in California, and current state and federal regulations have proven insufficient in protecting communities throughout the state. Communities across the United States and Canada are already paying dearly for the reckless expansion of this shipment method without sufficient protective regulations. Last year saw greater spillage of crude oil from rail cars than the previous four decades combined (1.14 million gallons in 2013 compared to 800,000 gallons from 1975 to 2012).¹ In addition to substantial environmental damage, these accidents and spills have resulted in evacuations, injuries, substantial property damage, and even death. The most serious incident thus far was the July 6, 2013 derailment of a 74-car train laden with Bakken crude oil in Lac-Mégantic, Quebec. The explosion of multiple tank cars killed 47 people, destroyed 30 buildings in the town’s downtown area, and released 26,000 gallons of Bakken crude into the nearby Chaudière River.² California cannot wait for a similar accident to afflict one of our communities before

¹ California Senate Environmental Quality Committee, Safe Rail Transport of Crude Oil: What’s On the Horizon, and Are We Prepared? (hereinafter “Safe Transport of Crude Oil”) at 4 (Feb. 24, 2014), *available at* <http://seuc.senate.ca.gov/sites/seuc.senate.ca.gov/files/02-24-14%20Background.pdf>.

² *Id.* at 5.

action is taken. Given the risks crude-by-rail poses to California communities, we recommend that the Working Group make a number of changes to the recommendations included in “Oil by Rail Safety in California.” Issue areas where current recommendations are insufficient include tank car safety standards, train speed limits, inspection requirements, SERC reporting requirements, rail carrier fee programs, and new crude-by-rail facility construction.

I. California Should Demand Swift Federal Action on Tank Car Standards

The report recognized the inadequacy of existing DOT-111 tank cars for safely transporting Bakken crude, and recommends that “[the California Public Utilities Commission (CPUC)] should request that the [Department of Transportation (DOT)] move expeditiously to finalize new and retrofitted tank car regulations that will result in a more rapid phase out of DOT-111 tank cars.”³ This recommendation lacks force and specificity. CPUC should demand that DOT-111s be either immediately banned for crude-by-rail service or removed from crude-by-rail and hazardous cargo service within 30 days. CPUC should also submit comments on the proposed tank car rule when it is released in the fall, using the Working Group’s collective expertise to illustrate why stringent tank car standards are necessary for the safety of California communities if crude-by-rail is to continue in the state.

In advocating for more stringent standards, CPUC should demand that the deficiencies of DOT-111s be addressed by new standards. These deficiencies include insufficient puncture resistance of tank car walls, top fitting housings’ ineffectiveness in withstanding impact in an accident, lack of high-flow capacity pressure relief valves, insufficient head shields, and a lack of tank-liners to prevent corrosion.⁴ In 2011, the rail industry group Association of American Railroads (AAR) voluntarily adopted industry standards for all new tank cars that address some of these issues. The resultant cars (CPC-1232s) have greater head and shell thickness, normalized steel, 1/2-inch thick head shields, and top fitting protection, but even these improved tank cars are still far from fail-proof.⁵ Several of the cars involved in the fiery April 2014 Lynchburg, Virginia derailment were CPC-1232s.⁶ CPUC should advise DOT to study the causes of CPC-1232 failures in accidents, and advise against accepting by default this industry standard, which still lacks jacketing to prevent tank car ruptures and other important protective design elements.

Furthermore, California is one of many states where crude transported by DOT-111s poses an unacceptable risk to the state’s citizens and natural resources. For example, New York recently

³ State of California Interagency Rail Safety Working Group, “Oil by Rail Safety in California: Preliminary Findings and Recommendations” (June 10, 2014).

⁴ Paul L. Stancil, “DOT-111 Tank Car Design,” National Transportation Safety Board, *available at* http://www.nts.gov/news/events/2012/cherry_valley/presentations/hazardous%20materials%20board%20presentation%20508%20completed.pdf. Many of these recommendations overlap with the recommendations the Association of American Railroads gave to DOT’s Pipeline and Hazardous Materials Safety Administration (PHMSA) in response to the PHMSA’s notice of proposed rulemaking on tank car standards. “Railroad Tank Cars,” Association of American Railroads, *available at* <https://www.aar.org/safety/Documents/Railroad%20Tank%20Cars.pdf>.

⁵ Paul L. Stancil, “DOT-111 Tank Car Design,” National Transportation Safety Board, *available at* http://www.nts.gov/news/events/2012/cherry_valley/presentations/hazardous%20materials%20board%20presentation%20508%20completed.pdf.

⁶ “Tank cars in recent U.S. oil train mishap were newer model-official,” *Reuters* (May 9, 2014), *available at* <http://www.reuters.com/article/2014/05/09/usa-energy-railways-idUSL2N0NV1HE20140509>.

released “Transporting Crude Oil in New York State: A Review of Incident Prevention and Response Capacity” and is advocating for more stringent rail car standards, along with a host of other federal safety regulations.⁷ California should consider organizing its advocacy efforts with other concerned state governments to maximize impact and communicate fully to the federal government the breadth and intensity of state concern. In addition to improved tank car standards, this advocacy should focus on requiring Positive Train Control as soon as feasible on all crude-by-rail and other hazardous materials routes and requiring that crude-by-rail trains be staffed by two to three engineers. The Lac-Mégantic train was staffed by a single engineer and the derailment occurred while he left the train unattended at night.⁸

II. California Should Both Petition For More Stringent Federal Speed Limits and Develop State Speed Limits in Populated Areas and Environmentally Sensitive Areas

The report notes that the February 2014 voluntary agreement by the railroads to lower speed limits for crude oil trains with more than 20 cars in “high-threat-urban-areas” leaves out many vulnerable California areas. In addition to petitioning the Federal Rail Administration (FRA) to consider additional restrictions and monitoring and enforcing the new speed limits in the existing voluntary agreement, CPUC should address this issue directly by adopting safer speed limits through vulnerable populated areas.

This can be done through CPUC designation of high risk areas as “local safety hazards.” While federal regulations cover speed limits for trains by track classification and curvature of track, states have legal authority to develop additional rail regulations in areas covered by federal law if they meet the local safety hazard exemption. 49 U.S.C § 20106(a)(2).⁹ In instances where risks are found to be unique to a given locale, courts will find speed limits to not be preempted by federal law. *See e.g. In re Speed Limit for Union Pac. R.R. Through City of Shakopee*, 610 N.W.2d 677, 685 (Minn.Ct.App 2000); *Stone v. CSX Transp., Inc.*, 37 F .Supp.2d 789, 794-97 (S.D.W.Va. 1999). This standard requires CPUC to be selective in its designation of locations as local safety hazards, but the magnitude of the problem and the potentially devastating effect of continued federal inaction in developing mandatory speed limits demands that California agencies fully exercise their authority in this area to guarantee the safety of the state’s citizens. State law already requires CPUC to identify local safety hazards and to report to the California legislature on railroad accident history. Cal. Pub. Util. Code § 7711.¹⁰

⁷ See *Transporting Crude Oil in New York State: A Review of Incident Prevention and Response Capacity*, Governor’s Office, New York State (April 30, 2014), available at <http://www.governor.ny.gov/assets/documents/CrudeOilReport.pdf>.

⁸ “Lac-Mégantic explosion: Ottawa approved having only one engineer on ill-fated train,” *The Star* (July 9, 2013) available at http://www.thestar.com/news/canada/2013/07/09/ottawa_okayed_having_only_one_engineer_on_illfated_train.html.

⁹ The Section 2016 exemption allows for additional or more stringent laws of the same subject matters as federal regulation if the law, regulation, or order is (1) “necessary to eliminate or reduce an essentially local safety or security hazard; (2) is not incompatible with a law, regulation, or order of the United States Government; and (3) does not unreasonably burden interstate commerce.”

¹⁰ See e.g. *Annual Railroad Local Safety Hazard Report For Calendar Year 2012*, California Public Utilities Commission (July 1, 2013), available at <http://www.cpuc.ca.gov/NR/rdonlyres/F4E3C32C-3A3E-48B5-A816-20CD634AF1AD/0/July2013AnnualRRLocalSafetyHazardReportforyear2012Final.pdf>.

Federal Rail Administration official Karl Alexy has noted publicly that “[a]t train speeds of 30 to 40 mph, you cannot build a tank car robust enough to withstand puncture in unit train derailments.”¹¹ It is important to note that the crude oil train that derailed, caught on fire (with flames reportedly reaching 100 feet in the air), and plunged several rail cars into the James River in Lynchburg, Virginia on April 30, 2014 was only traveling 24 miles an hour.¹² The voluntary AAR speed limit of 40 mph for unit trains of crude oil traveling in urban areas is clearly too high to protect public safety. We recommend that the CPUC move swiftly to evaluate appropriate speed limits for unit trains carrying hazardous cargo and implement those speed limits immediately.

III. California Should Develop More Specific and Tailored Train and Track Inspection Requirements

The report recommends the funding of seven additional rail safety inspectors, to be paid for through rail industry fees, but the report fails to provide a rationale for why seven inspectors will be sufficient, explain what additional work will be achieved by those inspectors, or provide recommendations for further staffing increases to keep up with the massive projected rise in crude-by-rail traffic in the coming years.¹³ There is a lack of specific, publically available information on the causes of crude-by-rail accidents, which makes it difficult to assess what level of inspection is sufficient to reasonably guarantee public safety if crude-by-rail is to continue in the state. In light of this uncertainty, and given the safety risks crude-by-rail poses, CPUC should guarantee that all unit trains carrying 20 cars or more of crude oil of any origin be inspected by CPUC inspectors before passing through the state.

CPUC inspector staffing should also be sufficient to conduct regular line inspections. We commend the report’s recommendation that the state ensure compliance with the industry voluntary agreement, which includes a provision requiring increased track inspections by operators, and also the recommendation that CPUC conduct at least one additional annual track inspection on crude-by-rail routes.¹⁴ As with general staffing levels, however, the state should provide some accounting of the adequacy of this increased inspection rate.

¹¹ Statement during Federal Rail Safety Forum, April 2014

https://www.nts.gov/news/events/2014/railsafetyforum/presentations/Panel%204_A_Karl%20Alexy.pdf.

¹² “Oil Train That Crashed in Lynchburg Was Moving Below New Speed Limit,” *The Wall Street Journal* (May 1, 2014) available at <http://online.wsj.com/news/articles/SB10001424052702304178104579535732934152004>.

¹³ Crude-by-rail in California has seen a 135-fold increase in the last four years. Current imports of crude-by-rail still represent less than 1 percent of all crude processed in the state, but if all proposed crude-by-rail facilities are approved, the Governor’s Budget projects this number to sky-rocket to 25 percent by 2016, to 150 million barrels per year. “Safe Transport of Crude Oil” at 4, 6 (Feb. 24, 2014), available at <http://seuc.senate.ca.gov/sites/seuc.senate.ca.gov/files/02-24-14%20Background.pdf>.

¹⁴ State of California Interagency Rail Safety Working Group, “Oil by Rail Safety in California: Preliminary Findings and Recommendations” at 14 (June 10, 2014).

IV. California Should Enforce the Requirement that Rail Carriers Report to the State Emergency Response Commission on Crude Oil Shipments

The Report mentions the Department of Transportation May 2014 emergency order requiring that shipments of Bakken crude over 1,000,000 gallons must be reported to California's State Emergency Response Commission, but fails to make a recommendation with regard to what actions the state should take if operators fail to comply.¹⁵ If California's State Emergency Response Commission is not receiving information from railroads on expected weekly shipments of Bakken as required, CPUC should use its enforcement authority to block Bakken rail shipment into the state.¹⁶ The DOT order provides that "if notification is not made to a State Emergency Response Commission within 30 days of the date of this Order, a railroad is prohibited from operating any train transporting 1,000,000 gallons or more of Bakken crude oil in that state until such notification is provided."¹⁷ The order also requires that carriers "update notifications prior to making any material changes in the estimated volumes or frequencies of trains traveling through a county."¹⁸ We appreciate that the state is making the weekly Bakken crude oil train reports available to the public.¹⁹

The state should also demand that the emergency order be expanded to cover crude oil of all geographical origins, not only crude originating from the Bakken region. Other regions that are not included in the emergency order are producing volatile fracked crude that poses similar risks to Bakken crude. Furthermore, while fracked crude does pose serious heightened safety risks because of greater likelihood of explosions when leaks occur, spills of crude oil of all geographic origins result in substantial economic, environmental, and public safety impacts.²⁰ Tar sands (or bitumen sands) crude poses additional heightened risks of its own. Tar sands crude is extremely viscous, and before shipment, it is diluted with various chemical additives. In the case of a spill, the resultant product, called "dilbit," will separate into its component parts, with the heavy bitumen crude settling on the bottom of the waterway and the chemical additives released through evaporation into the air.²¹ The evaporated chemicals can cause negative health effects, and the heavy crude is more difficult to clean up than spills of lighter crude that can be skimmed off the surface of the water.²² The process of dredging up heavy crude from the

¹⁵ State of California Interagency Rail Safety Working Group, "Oil by Rail Safety in California: Preliminary Findings and Recommendations" at 11 (June 10, 2014).

¹⁶ The Railroad Operations and Safety Branch of the Safety and Enforcement Division (a branch of CPUC) has enforcement authority over state and some federal rail safety regulations. *See* Joint Hearing of the Senate Environmental Quality and Natural Resources and Water Committees, Emergency Response to Rail Accidents (hereinafter "Emergency Response to Rail Accidents") at 7 (March 19, 2014), *available at* <http://senv.senate.ca.gov/sites/senv.senate.ca.gov/files/Background-Rail%20Accident.pdf>.

¹⁷ DOT Emergency Order, DOT-OST-2014-0067, May 7, 2014.

¹⁸ *Id.*

¹⁹ Reports as currently posted at the bottom of this web page: Oil by Rail, Governor's Office of Emergency Services, *available at* <http://www.caloes.ca.gov/HazardousMaterials/Pages/Oil-By-Rail.aspx>.

²⁰ "Emergency Response to Rail Accidents" at 26 (March 19, 2014), *available at*

<http://senv.senate.ca.gov/sites/senv.senate.ca.gov/files/Background-Rail%20Accident.pdf>.

²¹ "When This Oil Spills, It's 'A Whole New Monster,'" *NPR* (August 16, 2012), *available at*

<http://www.npr.org/2012/08/16/158025375/when-this-oil-spills-its-a-whole-new-monster>; "The Dangers of Diluted Bitumen," *New York Times* (August 20, 2012), *available at* http://www.nytimes.com/2012/08/21/opinion/the-dangers-of-diluted-bitumen-oil.html?_r=0.

²² *Id.*

bottom of water bodies is extremely costly and might not be capable of recovering all oil that settles in sediment without causing substantial disturbance to the water body.²³ In order to adequately tailor emergency preparedness planning, first responders need to know about all the crude-by-rail shipments that will be passing through the counties they protect.

V. California Should Ensure that the OSPR Fee Is Adequate and Develop Differentiated Fees to Promote Safer Measures Among Rail Carriers

The recommendation in the report to expand the Oil Spill Prevention and Response Program to cover inland oil spills by applying its 6.5 cent per barrel fee to rail as well as marine shipments of crude is an essential step towards guaranteeing that rail carriers cover the full costs of their activities. The state should provide information to the public showing the adequacy of this fee to cover the cleanup and property damage costs of a worst-case scenario incident of a scale that could bankrupt the responsible rail carrier. In Lac-Mégantic, the cost of environmental cleanup alone is estimated at between \$200 million and \$500 million, and a settlement fund of hundreds of millions of dollars is in the process of being set up.²⁴ Because the rail carrier went bankrupt, much of the cleanup cost has fallen on the federal and provincial governments.²⁵ A similar incident could be much more costly if it occurred in a more densely populated area. If the OSPR fee is not adequate at its current levels, either for cumulative costs of many small incidents that could occur with the rapid increase in crude-by-rail in the state or for a worst-case scenario, the fee should be increased to meet those threshold funding levels.

Additionally, a more nuanced fee structure could maximize the benefits of such a program by incentivizing good behavior on the part of rail carriers. California should incentivize best practices by rail carriers by discounting fees for carriers that voluntarily adopt certain safety measures. This could include actions such as using the most advanced jacketed tank cars as recently proposed by AAR,²⁶ instead of DOT-111s, reductions in speed beyond what is required in the voluntary agreement in sensitive environmental areas or populated areas, increased staffing of trains, and committing to supply categories of information relevant to emergency responders that federal law or current rail carrier-state agreements do not require.

²³ The Kalamazoo River pipeline spill, which released over 840,000 gallons of bitumen into the river, is illustrative of the particular challenges of cleaning up dilbit. Four years after the spill, over a billion dollars have been invested in cleanup, but the process is ongoing. “Jane Kleeb vs. the Keystone Pipeline,” *New York Times* (May 16, 2014), available at http://www.nytimes.com/2014/05/18/magazine/jane-kleeb-vs-the-keystone-pipeline.html?_r=0. The EPA has ordered the responsible company, Enbridge, to remove all oil recoverable by dredging without causing significant impacts to the river, but estimate that 162,000-168,000 gallons will remain, some of which will be caught over time by traps that gather contaminated sediment. EPA, “Dredging Begins on Kalamazoo River” at 2 (August 20, 2013) available at http://www.epa.gov/enbridgespill/pdfs/enbridge_fs_201308.pdf.

²⁴ “Settlement becomes focus after sale of Lac-Mégantic railway’s Canadian assets,” *The Globe and Mail* (June 30, 2014) available at <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/settlement-becomes-focus-after-sale-of-lac-megantic-railroads-canadian-assets/article19393022/>.

²⁵ “Ottawa should step up funding for of Lac-Mégantic cleanup, Marois says,” *The Globe and Mail* (March 11, 2014) available at <http://www.theglobeandmail.com/news/politics/ottawa-should-step-up-funding-for-lac-megantic-cleanup-marois-says/article17432514/>.

²⁶ Proposed new AAR Tank Cars have 9/16 inch shells, full height head shields on both ends, thermal protection, top fittings protection, more secure bottom outlets and high capacity pressure relief valves. Evolution of Rail Industry Tank Car Standards for Crude Oil, American Association of Railroads, available at https://www.aar.org/safety/Documents/Assets/AAR_TankerSafety_Static.pdf.

The Port of Long Beach's Green Ship Incentive Program and Green Flag Program provide positive examples of conceptually similar programs. The Green Ship Incentive Program rewards eligible vessel operators who adopt green ship technologies to lessen the impacts of operations through a reduction in NOx emissions.²⁷ The Green Flag Program is a voluntary speed reduction program that rewards vessels for reducing speeds within a defined area near the entrance to the harbor.²⁸ Lower speeds result in lower emissions, and thereby reduce smog and diesel particulates. A differentiated fee structure for crude-by-rail carriers could operate similarly to these successful Port of Long Beach programs, and could be targeted to address particular regulatory gaps.

VI. California Should Halt New Crude-by-Rail Infrastructure

Until the risks of crude-by-rail are better understood, development of new crude-by-rail terminals and other infrastructure should be halted in California. A legislative ban or gubernatorial moratorium should be imposed on building new terminals with crude-by-rail capacity until a) the state investigates the cumulative impacts of the statewide increase in crude-by-rail capacity of all proposed facilities to public health, safety, and the environment, b) the state investigates the cumulative impacts of the statewide increase in crude-by-rail capacity of all proposed projects on climate disruption and the state's ability to comply with its own climate change mitigation standards set forth in AB32, and c) those health, safety, and climate change impacts are remedied through necessary regulation, railroad commitments, and infrastructure project modifications. Crude-by-rail capacity should not be increased if these impacts cannot be addressed. Halting new crude-by-rail infrastructure construction until more is known about the human impacts is particularly important given that such facilities are likely to be located near environmental justice communities that are already disproportionately impacted by the ill-effects of environmentally hazardous industrial activity.

The existing measures in state and federal regulations do not sufficiently protect Californians from current levels of crude-by-rail in the state, let alone the many-fold increase that is projected by the end of 2016.²⁹ Local agencies assessing these projects do not have adequate information to assess cumulative impacts of projects and to determine if permitting of the projects is appropriate or what mitigation measures or project alternatives might be sufficient. To this end, it is necessary that the state conduct this investigation to assess public health, safety and environmental risks, enabling permitting agencies to make informed decisions that fully protect California communities.

²⁷ Green Ship Incentive Program, Port of Long Beach, *available at* <http://www.polb.com/environment/greenship.asp>.

²⁸ Participate in the Green Flag Program, Port of Long Beach, *available at* <http://www.polb.com/civica/filebank/blobdload.asp?BlobID=6963>.

²⁹ The Governor's Budget projects that by 2016, as much as 25 percent of crude processed in California could arrive by rail if all proposed projects related to the storage, processing, and transfer of crude oil in the state are approved, an amount of approximately 150 million barrels per year. Currently 1% of crude processed in the state arrives by rail, and this already represents a massive increase in only the past several years (from 45,491 barrels in 2009 to 6,169,264 barrels in 2013). Safe Transport of Crude Oil, at 6-7, *available at* <http://seuc.senate.ca.gov/sites/seuc.senate.ca.gov/files/02-24-14%20Background.pdf>.

Thank you for your consideration. We welcome the opportunity to discuss this important matter with you at any time. Please direct follow up communications to Diane Bailey, 415-875-6127, dbailey@nrdc.org.

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