



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL**

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ATTACHMENT 5

Date: February 20, 2014

To: **State Board of Fire Services**

From: Bob Gorham, Division Chief
Pipeline Safety Division

SUBJECT/AGENDA ITEM:

Information Bulletin 14-001 Pipelines, Trains and Bakken Crude Oil

Recommended Actions:

Information/Discussion

This is to inform the board of the safety issues regarding Bakken crude oil coming into California

Background Information:

Recent derailments and resulting fires indicate that the type of crude oil being transported from the Bakken region may be more flammable than traditional heavy crude oil.

Analysis/Summary of Issue:

The Office of State Fire Marshal has issued Information Bulletin 14-001 to further advise that Bakken crude oil could be present at spills occurring from rail car derailments and pipeline breaks throughout California

Attached: Information Bulletin included package

**Bulletin can also be found at

<http://osfm.fire.ca.gov/informationbulletin/pdf/2014/Bakken%20Oil%20IB.pdf>



California State Fire Marshal Information Bulletin 14-001

Issued: January 22, 2014

Pipelines, Trains and Bakken Crude Oil

On January 2, 2014, The Pipeline and Hazardous Materials Safety Administration (PHMSA) issued the attached Safety Alert to notify the general public, emergency responders, and shippers and carriers that recent derailments and resulting fires indicate that the type of crude oil being transported from the Bakken region of North Dakota and Canada may be more flammable than traditional heavy crude oil.

California refiners are a large consumer of this cheaper priced crude oil. With no existing pipelines to deliver the Bakken oil to the West Coast, oil companies are using a combination of rail cars, barges, and local pipelines to deliver this oil to California refineries. To accommodate additional volumes, new rail car unloading facilities are being proposed and constructed at key distribution sites in the state. Principally in Contra Costa and Kern Counties, these facilities will offload crude oil into tanks and transport using existing pipelines to the refineries throughout California.

We are advising the fire service to treat all crude oil spills, whether they are from rail car or pipeline, with the understanding that the flammability of the oil may be higher than they have traditionally encountered. Also, we encourage you during your annual meetings with the hazardous liquid pipeline operators to discuss if they are shipping Bakken Oil. Additional information can be obtained by clicking on the following links:

- 1) [PHMSA Safety Alert](#)
- 2) [Crude oil pipeline map of California](#)

Should you have any questions regarding the pipeline systems or the commodities that run through your community, please contact the OSFM Pipeline Safety Division at (916) 445-8200.



**The Pipeline and Hazardous Materials Safety
Administration**

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Safety Alert -- January 2, 2014

Preliminary Guidance from OPERATION CLASSIFICATION

The [Pipeline and Hazardous Materials Safety Administration](http://www.phmsa.dot.gov) (PHMSA) is issuing this safety alert to notify the general public, emergency responders and shippers and carriers that recent derailments and resulting fires indicate that the type of crude oil being transported from the Bakken region may be more flammable than traditional heavy crude oil.

Based upon preliminary inspections conducted after recent rail derailments in North Dakota, Alabama and Lac-Megantic, Quebec involving Bakken crude oil, PHMSA is reinforcing the requirement to properly test, characterize, classify, and where appropriate sufficiently degasify hazardous materials prior to and during transportation. This advisory is a follow-up to the PHMSA and Federal Railroad Administration (FRA) [joint safety advisory](#) published November 20, 2013 [78 FR 69745]. As stated in the November Safety Advisory, it is imperative that offerors properly classify and describe hazardous materials being offered for transportation. 49 CFR 173.22. As part of this process, offerors must ensure that all potential hazards of the materials are properly characterized.

Proper characterization will identify properties that could affect the integrity of the packaging or present additional hazards, such as corrosivity, sulfur content, and dissolved gas content. These characteristics may also affect classification. PHMSA stresses to offerors the importance of appropriate classification and packing group (PG) assignment of crude oil shipments, whether the shipment is in a cargo tank, rail tank car or other mode of transportation. Emergency responders should remember that light sweet crude oil, such as that coming from the Bakken region, is typically assigned a packing group I or II. The PGs mean that the material's flashpoint is below 73 degrees Fahrenheit and, for packing group I materials, the boiling point is below 95 degrees Fahrenheit. This means the materials pose significant fire risk if released from the package in an accident.

As part of ongoing investigative efforts, PHMSA and FRA initiated "Operation Classification," a compliance initiative involving unannounced inspections and testing of crude oil samples to verify that offerors of the materials have been properly classified and describe the hazardous materials. Preliminary testing has focused on the classification and packing group assignments that have been selected and certified by offerors of crude oil. These tests measure some of the inherent chemical properties of the crude oil collected. Nonetheless, the agencies have found it necessary to expand the scope of their testing to measure other factors that would affect the proper characterization and classification of the materials. PHMSA expects to have final test

results in the near future for the gas content, corrosivity, toxicity, flammability and certain other characteristics of the Bakken crude oil, which should more clearly inform the proper characterization of the material.

“Operation Classification” will be an ongoing effort, and PHMSA will continue to collect samples and measure the characteristics of Bakken crude as well as oil from other locations. Based on initial field observations, PHMSA expanded the scope of lab testing to include other factors that affect proper characterization and classification such as Reid Vapor Pressure, corrosivity, hydrogen sulfide content and composition/concentration of the entrained gases in the material. The results of this expanded testing will further inform shippers and carriers about how to ensure that the materials are known and are properly described, classified, and characterized when being shipped. In addition, understanding any unique hazards of the materials will enable offerors, carriers, first responders, as well as PHMSA and FRA to identify any appropriate mitigating measures that need to be taken to ensure the continued safe transportation of these materials.

PHMSA will share the results of these additional tests with interested parties as they become available. PHMSA also reminds offerors that the hazardous materials regulations require offerors of hazardous materials to properly classify and describe the hazardous materials being offered for transportation. 49 CFR 173.22. Accordingly, offerors should not delay completing their own tests while PHMSA collects additional information.

For additional information regarding this safety alert, please contact Rick Raksnis, PHMSA Field Services Division, (202) 366-4455 or E-mail: Richard.Raksnis@dot.gov. For general information and assistance regarding the safe transport of hazardous materials, contact PHMSA’s Information Center at 1-800-467-4922 or phmsa.hm-infocenter@dot.gov.

CALIFORNIA OFFICE OF THE STATE FIRE MARSHAL
Pipeline Safety Division
CRUDE OIL PIPELINES



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January 10, 2014
 Data sources: CAL FIRE
 Office of the State Fire Marshal
 Pipeline Safety Division, GDT
 ESRI Data & Maps 2013
 ArcGIS Online Services