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Director, Hazardous Materials
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BNSF Railway Company

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Sensitive Security Information
Railroad Restricted Material

RECEIVED
JUN 09 2014
STATE FIRE
MARSHAL'S OFFICE

June 6, 2014

Ms. Sue Otjen,
SERC Coordinator
Office of the State Fire Marshall
4760 Portland Road, NE
Salem, OR 97305-1760

Re: U.S. Department of Transportation Emergency Order Docket Number DOT-OST-2014-0067 (Issued May 7, 2014)

Dear Ms. Otjen:

Pursuant to the above referenced Emergency Order, I am enclosing the information required by the United States Department of Transportation ("D.O.T.") to be provided to your state: a copy of the traffic flow summary for crude oil shipments in your state through each county. It is important to note that this information is subject to several restrictions on its release and exemptions from both state and federal applicable Freedom of Information laws and should only be provided to persons meeting with the appropriate need-to-know as discussed below. BNSF considers this information commercial confidential and business confidential information and Security Sensitive Information pursuant to Federal law, and the documents have been marked accordingly.

The D.O.T.'s guidance states that "This data is intended for those persons with a need-to-know; that is, first responders at the State and local level, as well other appropriate emergency response planners. DOT expects the SERCs to treat this data as confidential, providing it only to those with a need-to-know, and with the understanding that recipients of the data will continue to treat it as confidential. Accordingly, railroads may require reasonable confidentiality agreements prior to providing this information". BNSF trusts that each agency will maintain the confidentiality of this information in accordance with D.O.T.'s stated expectation.

Under federal homeland security regulations, this data is also considered sensitive security information and is **ONLY** to be shared with individuals having a "need to know" as defined by statute. Here, the information is being provided to government personnel with emergency response, planning and/or security-related responsibilities. Please

Warning: This record contains Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persons without a "need to know", as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. government agencies, public disclosure is governed by 5 U.S.C. 552 and 49 CFR parts 15 and 1520.

distribute this information only to those people who have a direct "need to know" as defined by regulation with a copy of this letter. The key purpose of the emergency order is to ensure local responders understand if crude oil is being routed through their counties and potential volumes for the purpose of developing emergency response plans.

BE FURTHER ADVISED, numerous federal and state regulatory restrictions prohibit BNSF or those receiving this information from publicizing data on train volumes and routing. These include, but are not limited to the following:

1. Federal regulation prohibits sensitive security information relating to transportation shipments from being released. The SSI regulations are under three different federal agencies:
   - Department of Transportation: 49 CFR Subtitle A (Part 15)
   - Department of Homeland Security: 49 CFR Chapter XII (Part 1520)
   - Pipeline and Hazardous Materials Safety Administration: 49 CFR Subtitle B Chapter I (Part 172.820)
   - Also see attached STB protective order as further example of treatment and restriction on disclosure of SSI): http://www.stb.dot.gov/decisions/readingroom.nsf/UNID/369FD392053798F985257975005464D3/$file/42116.pdf

2. BNSF considers this information to be proprietary and confidential trade secret and business information and is providing it to your agency with the expectation and understanding that you will not share it with anyone who does not have a "need to know" such information for emergency response, planning and/or security-related responsibilities.
   - 49 CFR Parts 15 and 1520 defines SSI as including information that would "Reveal trade secrets or privileged or confidential information. . . ."
   - Pursuant to Federal Statute, information relating to the route, kind, quantity routing of a shipper's property is competitively sensitive information that shall not be disclosed by a railroad. 49 USC § 11904.

BNSF recognizes the important role community emergency planning and responding personnel play in protecting our communities and is committed to providing information needed to support these efforts within the limits defined by law. Although security regulations allow for limited disclosure of this information, we must all be cognizant that there is a real potential for the criminal misuse of this data in a way that could cause harm to your community or other communities along the rail route. BNSF is providing this

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information to you with the understanding that your agency can and will protect such information from public disclosure. Each agency that receives this information is responsible for compliance with these restrictions.

In the event that you are asked to disclose or provide this information via an open records or other request to which your or another agency believes this information is responsive, BNSF requires that you immediately notify me at 817-740-7358 or by email at Patrick.Brady@bnsf.com so that BNSF can determine whether legal or other action to prevent disclosure is appropriate.

Sincerely,

Patrick Brady

Director Hazardous Materials
Special Operations
BNSF Railway

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Bakken Region Crude Weekly Train Tracking

Baseline Low	Baseline High	State/County/Route	Loaded Train Counts 5/29/2014 - 6/4/2014
		OR	
		MULTNOMAH	3
		DESCHUTES	1
		WASCO	1
		JEFFERSON	1
		KLAMATH	1
		UMATILLA	0

CONFIDENTIAL

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Attachment 1
DOT-OST-2014-0067
Identify Petroleum Crude Oil
Source: 49CFR172(C)

DESCRIPTION OF PETROLEUM CRUDE OIL BEING TRANSPORTED

UN1267
PETROLEUM CRUDE OIL
3
PG I or II
HMRC (STCC) 4910165 or 4910191

Details:

UN1267 – Unique identification number assigned by DOT

PETROLEUM CRUDE OIL – Proper DOT shipping name

3 – Indicates the DOT hazard class. Hazard class 3 is flammable liquid

PG – Packing Group further describes the hazard class based on the materials flash point and initial boiling point as follows:

Packing group	Flash point (closed-cup)	Initial boiling point
I		≤35 °C (95 °F)
II	<23 °C (73 °F)	>35 °C (95 °F)
III	≥23 °C, ≤60 °C (≥73 °F, ≤140 °F)	>35 °C (95 °F)

Bakken petroleum crude is shipped as either PG I or PG II

HMRC (STCC) – Hazardous Materials Response Code (Standard Transportation Commodity Code) drives emergency response information included as part of railroad shipping papers (see Attachment 3). Most petroleum crude uses 4910165. Crude oil from the Bakken region will soon carry 4910191 as the HMRC.

PETROLEUM CRUDE OIL

Class 3 (Flammable Liquid) or Combustible Liquid

GENERAL INFORMATION

Petroleum crude oil is a flammable, variably light to dark colored liquid hydrocarbon with properties between gasoline and kerosene. It is used as a raw material for making fuels and various chemicals. Barely soluble in water and slightly lighter, petroleum crude oil will form a floating surface slick. Flammability of this product can vary widely having a flash point range from -45 to 392°F. The liquid may evaporate easily even at low temperatures. The vapors of the more volatile, and therefore more flammable crude oil, are heavier than air, may accumulate and persist in low areas, and may travel some distance to a source of ignition and flash back. Similarly, accumulations of vapor in confined spaces such as buildings or sewers may explode if ignited and there is some potential that containers of liquid may rupture violently if exposed to fire or excessive heat for sufficient time duration. Typical crude oil weigh approximately 6.3-8.3 pounds per gallon.

Petroleum crude oil will not react with water or other common materials and is stable in normal transportation. It is incompatible with strong oxidizers, and may attack some forms of plastics, rubber, and coatings. Toxicity by potential routes of exposure is generally considered low to moderate. The more volatile mixtures may be present in air in high concentrations creating an inhalation hazard. There is also the possibility that the crude oil may contain some fraction of toxic benzene or hydrogen sulfide (see separate guides). Products of combustion may include toxic constituents.

CHEMICAL/PHYSICAL DATA

Solubility in Water: Practically insoluble, below 0.1%
Solubility in Other Chemicals: Soluble in various hydrocarbon liquids.
Specific Gravity (Liquid): Varies, 0.75 - 0.99
Vapor Density: 3.4 (approximately)
Boiling Point: Varies, 1000+°F (538+°C).
Melting Point: Unavailable
Freezing Point: Unavailable
Molecular Weight: Complex mixture, approximately 99
Heat of Combustion: 10,290 - 10,460 cal/g (Petroleum distillates)
Evaporation Rate (butyl acetate=1): 10 (approximately)
Vapor Pressure: Varies widely with composition, 40 mmHg for petroleum distillates.
Flash Point: Varies widely -45 to 392°F (-43 to 200°C)
Autoignition Temperature: 450 - 500°F (232 - 260°C)
Burning Rate: 4 mm/minute
Flammable Limits: 0.4% (LEL) - 15% (UEL)
Stability: Stable
Polymerization Potential: Will not occur.
Corrosiveness: Relatively noncorrosive but may attack some forms of plastics, rubber, and coatings.
Reactivity with Water: No reaction
Reactivity and Incompatibility: Reacts with strong oxidizing materials. Avoid chlorine, fluorine.

IDENTIFICATION

Shipping Name(s): Petroleum crude oil (USDOT & IMO).
Synonyms and Tradenames: Crude oil ; Mineral oil; Rock oil; Coal oil; Petroleum.
CAS Registry No.: 8002-05-9
Chemical Formula: C_6-C_{13} hydrocarbon mixture. Crude oil is a naturally occurring complex mixture of hydrocarbons whose exact composition and physical properties can vary widely depending upon its source.
Constituent Components (% each): Complex mixture of petroleum hydrocarbons; may contain 0-10% benzene.
UN/NA Designation: UN1267
IMO Designation: 3.1, 3.2 or 3.3, Flammable liquids
NFPA 704 Hazard Rating: 2(Health): 3(Flammability): 0(Reactivity)
Physical Form as Shipped: Liquid
Physical Form as Released: Liquid
Color of the Shipped Material: Dark yellow to brown or greenish-black, oily liquid.
Odor Characteristics: Like gasoline and kerosene
Reportable Quantity: See appendix I.
Common Uses: Raw material for making fuels and various chemicals.

ADDITIONAL INFORMATION AND ASSISTANCE: FOR 24-HOUR TECHNICAL SUPPORT FOR ACCIDENTS INVOLVING SPILLS, LEAKS, FIRES OR EXPOSURES TO CHEMICALS, CONTACT CHEMTREC AT (800) 424-9300 OR (703) 527-3887 (COLLECT).

PETROLEUM CRUDE OIL

Class 3 (Flammable Liquid) or Combustible Liquid

or

or

POTENTIAL HAZARDS

GENERAL HAZARDS

Threshold Odor Concentration: Varies

Unusual Hazards: Properties uncertain. Vapors of some crude oil may be heavier than air and may travel to a source of ignition. Some may include significant amounts of benzene (see separate guide).

Short Term Exposure Limit (STEL): Unavailable

Time Weighted Average (TLV-TWA): 86 ppm (350 mg/m^3) (Petroleum distillates).

Ceiling (C) Limit: 444 ppm (1800 mg/m^3) (Petroleum distillates).

IDLH: 1100 ppm or 10% LEL (Petroleum distillates).

Conditions to Avoid: Heat, fire, or sparks; contact with incompatible materials; runoff to sewers or water bodies; inhalation, ingestion, or direct physical contact.

HEALTH HAZARDS

Public Health Hazards: Major hazard is from inhalation of high vapor concentrations in air. Ingestion and direct contact are also to be avoided. (Note: Any benzene in the product increases both acute and chronic health risks.)

Hazards of Skin or Eye Contact: Repeated or prolonged contact with liquid petroleum crude oil may cause drying, cracking, and inflammation of the skin due to the defatting action of the product. Contact with the eyes may result in irritation and possibly temporary corneal injury.

Hazards of Inhalation: Vapors of petroleum crude oil may be irritating to the eyes and the upper respiratory tract. High concentrations in air may result in narcosis and central nervous system depression with symptoms including inebriation, headache, nausea, dizziness, drowsiness, unconsciousness, convulsions, and possibly death. Some symptoms may be evident after 1 hour at 4000-7000 ppm in air. Acute overexposure may also result in persistent anorexia and nervousness on occasion.

Hazards of Ingestion: Ingestion may cause a burning sensation, vomiting, diarrhea, drowsiness, and symptoms listed above. Aspiration into the lungs during vomiting may result in pulmonary edema with possibly severe consequences.

FIRE HAZARDS

Lower Flammable Limit: 0.4%

Upper Flammable Limit: 15%

Behavior in Fire: Flammable liquid. Liquid will burn but may be difficult to ignite depending on constituents. Flammable liquids may generate large quantities of flammable vapor upon release. Vapors of flammable liquids are heavier than air, may accumulate and persist in low areas, and may travel to a source of ignition and flash back. There is some potential that containers may rupture violently in fire.

Hazardous Decomposition Products: Not well-defined, may include toxic constituents such as carbon monoxide, carbon dioxide, oxides of sulfur and reactive hydrocarbons.

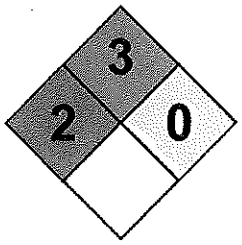
EXPLOSION HAZARDS

Explosive Potential: Explosion may result if vapors are ignited in a confined area. There is some potential that containers may rupture violently in fire. Product is sensitive to static discharge and is an extreme fire hazard. Vapors can burn with explosive violence.

1267

PETROLEUM CRUDE OIL

Class 3 (Flammable Liquid) or Combustible Liquid



PERSONAL PROTECTIVE CLOTHING AND EQUIPEMENT

Protective Clothing Required: Equipment should prevent repeated or prolonged skin contact and any reasonable probability of eye contact with the spilled product. This may include rubber boots, gloves, face shields, splash-proof safety goggles, and other impervious and resistant clothing. Compatible materials may include neoprene, nitrile rubber, chlorinated polyethylene, polyurethane, polyvinyl alcohol, Viton®, and nitrile-butadiene rubber.

Respiratory Protection: For unknown concentrations, fire fighting, or high concentrations, a self-contained breathing apparatus (SCBA) with full facepiece. For lesser concentrations, an air purifying respirator (APR) with organic vapor cartridge with a full facepiece within the use limitations of these devices.

FIRST AID

Nonspecific Symptoms: Irritation of the eyes, skin, or respiratory tract; other symptoms of exposure.

First Aid for Inhalation: Remove victim to fresh air and keep warm and at rest. If breathing becomes difficult or if breathing has stopped, administer artificial respiration. Get medical attention immediately. (Caution: Administration of mouth-to-mouth resuscitation may expose the first aid provider to chemical within the victim's lungs or vomit.)

First Aid for Skin Contact: In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart in order to rinse entire surface of eye and lids with water. Provide supportive care and seek immediate medical assistance by a physician from the nearest medical treatment facility.

First Aid for Eye Contact: Remove all contaminated clothing. Wash affected body areas with large amounts of water. Decontaminate the patient thoroughly before transporting to a medical treatment facility to prevent the potential for secondary contamination.

First Aid for Ingestion: Do not induce vomiting. Keep victim warm and at rest. Get medical attention immediately.

Note to Physician: Hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

FIRE RESPONSE

Extinguishing Agents: Carbon dioxide, dry chemical, foam, or water spray. Water may be ineffective and there is some possibility that foam or water may cause some frothing.

Extinguishing Techniques: Stay upwind. Wear breathing apparatus and appropriate protective clothing. Move container from fire area if no risk. Do not extinguish burning cargo unless flow can be stopped safely. Be alert to container rupture potential. Stay away from ends of tank involved in fire but realize that shrapnel may travel in any direction. Use water from side and from safe distance to keep fire exposed containers cool. For massive fire in cargo area, use unmanned hose holder or monitor nozzles. Withdraw immediately in case of rising sound from venting safety device or discoloration of tank. Note: Crude oil fires may produce a highly dangerous phenomenom known as a BOILOVER, whereby light hydrocarbons burn off at the surface of the fire and heavy superheated hydrocarbons sink to the bottom and come in contact with water bottoms. The super heated product converts the water to steam and forces burning crude oil out of the tank. Burning crude oil which has accumulated in tanks or diked areas are susceptible to boilovers. Seek expert advice on how to fight a crude oil fire.

SPILL RESPONSES

General Information: Proceed with caution. Restrict access to area. Keep unprotected personnel upwind of spill area. Eliminate ignition sources. Prevent liquid from entering sewers and confined spaces. Protect sewers and waterways from contaminated runoff. Notify proper authorities, downstream sewer and water treatment operations, and other downstream users of potentially contaminated water. Note that intake of petroleum crude oil may result in rupture or explosion of boilers or industrial process equipment. Use intrinsically safe equipment where necessary. Choose equipment, where possible, that is not corroded or otherwise damaged by the spilled product. Take the specific flammability hazard and possible volatility of the spilled product into account while planning the response.

PETROLEUM CRUDE OIL

Class 3 (Flammable Liquid) or Combustible Liquid

AIR RELEASE

TECHNIQUE

MONITOR THE SITUATION . . . The product may not produce large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until the spilled product is removed by product and container specialists.

CONSEQUENCE

Hazardous levels of product in air may be found in the local spill area and immediately downwind.

MITIGATION

Remove the spilled product as soon as possible. Restrict access to the local spill area and areas immediately downwind by unprotected personnel.

TECHNIQUE

WATER FOG OR SPRAY . . . Water fog or spray applied to petroleum crude oil vapors or fumes may accelerate their dispersal in the atmosphere. (Note: There is some possibility that water may cause frothing.)

CONSEQUENCE

Increases in spill surface area and atmospheric conditions may increase the rate of vapor generation. In enclosed areas, runoff may add to spill volume and overfill impoundments. Water runoff may contain a small amount (if any) of petroleum crude oil from contact with airborne vapors or fumes.

MITIGATION

Contain contaminated water and remove or treat as soon as possible to prevent spread of contamination. Be alert to conditions such as fire hose runoff or rainwater that may add to spill volume and overfill impoundments.

TECHNIQUE

FOAM . . . Firefighting foam applied to the surface of liquid pools may slow the release of petroleum crude oil vapors into the atmosphere. (Note: There is some possibility that foam may cause frothing.)

CONSEQUENCE

The effects of the foam may be short term. As the foam breaks down, release of vapors will increase. Products of foam breakdown will add to the volume of spilled material.

MITIGATION

Continue foam applications until spilled product is removed. Contain foam runoff and treat as hazardous waste.

LAND SPILL

TECHNIQUE

CONFINEMENT DIKES . . . Petroleum crude oil may be confined by building dikes using soil, sand or other materials.

CONSEQUENCE

Confined petroleum crude oil may percolate into soil or seep through dike material. This may result in loss of confined product and spread of contamination.

MITIGATION

Remove or neutralize contained product as soon as possible to prevent spread of contamination. Be alert to conditions such as fire hose runoff or rainwater that may overfill impoundments. Where possible, line collection area with compatible impervious materials.

TECHNIQUE

EXCAVATION . . . Spills of material may be confined by building trenches or ditches.

CONSEQUENCE

Material may leach into soil. Deep excavations may increase the potential for groundwater contamination if some areas. This may result in loss of confined product and spread of contamination.

MITIGATION

Remove material from contaminated area as quickly as possible to prevent possible contamination beyond the spill area. Water sprays may be used to reduce vapors, except in enclosed areas where runoff may accumulate and overflow impoundments. Be alert to condition such as increasing spill volume with runoff or rain water which may overfill diked areas. If possible, confinement areas should be lined with suitable, impervious material to prevent penetration into soil.

PETROLEUM CRUDE OIL

Class 3 (Flammable Liquid) or Combustible Liquid

TECHNIQUE

PUMPING/VACUUM SUCTION . . . Spilled material confined in diked areas may be recovered using compatible hoses, pumps and vacuum trucks. All product transfer equipment should be properly bonded and grounded.

CONSEQUENCE

Equipment that is not compatible with the spilled product may become damaged and present a safety hazard for response personnel. Mechanical equipment will become contaminated with removed product.

MITIGATION

Use equipment constructed of materials compatible with the spilled product. Decontaminate equipment.

TECHNIQUE

ABSORPTION . . . Spreading of spilled product may be controlled by absorbing liquid with sand, earth, clay, fly ash, cement powder, peat moss, saw dust, straw, commercial sorbents, or other compatible substances.

CONSEQUENCE

Once used, sorbent materials pose the same hazards as the spilled product. Their use adds to the overall volume of contaminated material.

MITIGATION

Deplete accumulated liquid pools with pumps or vacuum trucks if possible before applying sorbents. Remove contaminated sorbents to safe storage by mechanical means.

TECHNIQUE

MECHANICAL REMOVAL . . . Soil contaminated with spilled material may be removed by shovels, as well as a variety of heavy equipment such as backhoes and loaders.

CONSEQUENCE

Mechanical equipment used in clean-up operations may become contaminated and present a safety and/or health hazard to response personnel. Any flammable vapors present in the area may be ignited by motorized removal equipment.

MITIGATION

Use equipment constructed of materials compatible with the spilled product. Decontaminate equipment. Continually monitor for presence of flammable vapors.

WATER SPILL

TECHNIQUE

STOP USE . . . Notify downstream industrial, municipal and public users to stop water intake or to monitor water for contamination.

CONSEQUENCE

Alternative water supplies may be needed to be established. Consult environmental specialists for assistance, as needed.

MITIGATION

Provide alternative water supplies as needed until water supply is declared safe.

TECHNIQUE

FLOATING BOOMS/BARRIERS . . . Oil spill confinement booms of compatible material may be deployed. Alternatively, mesh or nets may be strung across stream and anchored every 6-8 feet. Straw or peat placed on upstream side of mesh should absorb and retard spreading of spilled product.

CONSEQUENCE

Leakage may occur under or through barrier if high waves or current present or if not properly deployed. Incompatible materials may be damaged by spilled product. Booms, barrier materials, and deployment equipment may be contaminated. Fire hazards pose risk to response personnel and equipment.

MITIGATION

Proceed with caution. Stage barriers in series where necessary. Recover spilled product as soon as possible. Decontaminate equipment after use. Dispose of waste materials in proper and safe manner. Use compatible equipment. Eliminate ignition sources.

PETROLEUM CRUDE OIL

Class 3 (Flammable Liquid) or Combustible Liquid

TECHNIQUE

WATER UNDER-FLOW DAMS . . . Streams may be provided with an under-flow dam. This is a dam made of compacted earth, clay, or other material with open tubes or pipes passing through under water. Upstream ends of pipes or tubes should be well below the layer of floating contaminant. Downstream ends should be at a higher elevation but still below the floating layer. Valves may be installed on downstream ends to control water flow.

CONSEQUENCE

Earthen dams may become saturated with water and seep through or collapse. An insufficient number of under-flow tubes or pipes or additional water may cause overflow.

MITIGATION

Use sufficient number and capacity of tubes or pipes. Be alert for conditions that may lead to overflow, saturation or dam collapse. Remove spilled product as soon as possible.

TECHNIQUE

DIVERSION . . . Where other means are unavailable, floating slicks may be temporarily herded, diverted, or controlled using water hose streams, small boat propeller wash or chemical surface tension modifiers known as spill herders.

CONSEQUENCE

Hose streams and propeller washes have limited applicability and effectiveness. The latter may cause undesired mixing of spilled product and water due to extreme agitation. Chemical spill herders should not be used until approval is obtained from authorized environmental officials.

MITIGATION

Use other means if available.

TECHNIQUE

SURFACE SKIMMING . . . Oil spill skimming devices may be deployed to recover floating petroleum crude oil.

CONSEQUENCE

Incompatible equipment may be damaged. Equipment may be contaminated and pose hazard to future users. Fire hazard may pose risk to response personnel and equipment.

MITIGATION

Decontaminate equipment after use. Use compatible equipment. Store recovered product in safe and secure location. Eliminate ignition sources.

TECHNIQUE

ABSORPTION . . . Straw, hay, peat, or commercial sorbent materials compatible with petroleum crude oil may be used to absorb spilled product from the water surface, preferably after the spill has been confined.

CONSEQUENCE

Once used, sorbent materials pose the same hazards as the spilled product. Their use adds to the overall volume of contaminated material. Deployment and recovery can be difficult. Fire hazards pose risk to response personnel and equipment.

MITIGATION

Deplete accumulated liquid pools with pumps or vacuum trucks if possible before applying sorbents. Decontaminate equipment after use. Store and dispose of waste materials in proper and safe manner. Use compatible equipment. Eliminate ignition sources.

Attachment 2B
DOT-OST-2014-0067
Emergency Response Information
Source: AAR

PETROLEUM CRUDE OIL 4910191
CLASS 3 (FLAMMABLE LIQUID) UN1267

PETROLEUM CRUDE OIL IS A DARK VISCOUS LIQUID. IT HAS A FLASH POINT OF LESS THAN 141 DEG. F. IT IS LIGHTER THAN WATER AND INSOLUBLE IN WATER. ITS VAPORS ARE HEAVIER THAN AIR.

IF MATERIAL ON FIRE OR INVOLVED IN FIRE
- DO NOT EXTINGUISH FIRE UNLESS FLOW CAN BE STOPPED
- USE WATER IN FLOODING QUANTITIES AS FOG
- SOLID STREAMS OF WATER MAY SPREAD FIRE
- COOL ALL AFFECTED CONTAINERS WITH FLOODING QUANTITIES OF WATER
- APPLY WATER FROM AS FAR A DISTANCE AS POSSIBLE
- USE FOAM, DRY CHEMICAL, OR CARBON DIOXIDE

IF MATERIAL NOT ON FIRE OR NOT INVOLVED IN FIRE
- KEEP SPARKS, FLAMES, AND OTHER SOURCES OF IGNITION AWAY
- KEEP MATERIAL OUT OF WATER SOURCES AND SEWERS
- BUILD DIKES TO CONTAIN FLOW AS NECESSARY
- ATTEMPT TO STOP LEAK IF WITHOUT UNDUE PERSONNEL HAZARD
- USE WATER SPRAY TO KNOCK-DOWN VAPORS

PERSONNEL PROTECTION
- AVOID BREATHING VAPORS
- KEEP UPWIND
- WEAR APPROPRIATE CHEMICAL PROTECTIVE GLOVES, BOOTS AND GOGGLES
- DO NOT HANDLE BROKEN PACKAGES UNLESS WEARING APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT
- WASH AWAY ANY MATERIAL WHICH MAY HAVE CONTACTED THE BODY WITH COPIOUS AMOUNTS OF WATER OR SOAP AND WATER

ENVIRONMENTAL CONSIDERATIONS - LAND SPILL
- DIG A PIT, POND, LAGOON, HOLDING AREA TO CONTAIN LIQUID OR SOLID MATERIAL
- DIKE SURFACE FLOW USING SOIL, SAND BAGS, FOAMED POLYURETHANE, OR FOAMED CONCRETE
- ABSORB BULK LIQUID WITH FLY ASH, CEMENT POWDER, OR COMMERCIAL SORBENTS

ENVIRONMENTAL CONSIDERATIONS - WATER SPILL
- USE NATURAL BARRIERS OR OIL SPILL CONTROL BOOMS TO LIMIT SPILL TRAVEL
- REMOVE TRAPPED MATERIAL WITH SUCTION HOSES

ENVIRONMENTAL CONSIDERATIONS - AIR SPILL
- APPLY WATER SPRAY OR MIST TO KNOCK DOWN VAPORS

FIRST AID RESPONSES
- MOVE VICTIM TO FRESH AIR; CALL EMERGENCY MEDICAL CARE.
- IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.
- IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF CONTACT WITH MATERIAL, IMMEDIATELY FLUSH SKIN OR EYES WITH RUNNING WATER FOR AT LEAST 20 MINUTES.
- REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES AT THE SITE.

Attachment 2C
DOT-OST-2014-0067
Emergency Response Information
Source: 2012 Emergency Response Guidebook

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

CAUTION: For mixtures containing alcohol or polar solvent, alcohol-resistant foam may be more effective.

Small Fire

- Dry chemical, CO_2, water spray or regular foam

Large Fire

- Water spray, fog or regular foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor, but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a (P) may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.
- For UN3166, if Lithium ion batteries are involved, also consult GUIDE 147.
- **If molten aluminum is involved, refer to GUIDE 169.**

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL EMERGENCY RESPONSE Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Attachment 3
OOT·OST-2014·0067
BNSF Railway's Point of Contact

POINT OF CONTACT

Issues and questions relating to the transportation of Bakken crude please contact:

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