

King County Office of Emergency Management

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## **Volatile Crude Oil Transport in King County**

### *Needs Assessment Report*

As Requested By:

Metropolitan King County Council, Motion 14155



**King County**

Walt Hubbard – Director, Office of Emergency Management

November 14, 2014

## BACKGROUND

A relatively new form of crude oil that is extracted from the Bakken formation underlying parts of Montana, North Dakota, Saskatchewan, and Manitoba has created a suddenly plentiful resource available for domestic use. "Bakken crude oil" is notable for its high volatility, as compared to other crude oil produced in the United States. Until recently, the majority of crude oil coming into this state came from Alaska's North Slope, transported via tanker ship to Washington's refineries. Beginning in 2012, there has been a significant increase in the amount of crude oil transported by rail. Furthermore, a significant portion of the oil is being transported in aging tank cars that many experts and regulators say are not adequate for this type of cargo. According to Burlington Northern Santa Fe (BNSF), between eight and 12 oil trains traverse King County per week, each transporting over one million gallons of crude oil. Recent train derailments, spills, and fires involving crude oil have resulted in evacuations, pollution, and property damage and, in Canada, the loss of 47 lives. On July 23, 2014 a slow-moving train with nearly 100 cars of crude oil derailed under the Magnolia Bridge in Seattle.

In August 2014, the U.S. Department of Transportation (DOT) issued six proposed rule changes that will significantly alter the current practices of volatile crude oil shipments.

The people of King County, political leaders, emergency management, and public safety officials are concerned about the potential risks posed by increased shipments of volatile crude oil. Because of historic development patterns, rail lines carrying this highly flammable product regularly traverse hundreds of miles of coastline, other sensitive environments, and densely populated areas including commercial districts, residential neighborhoods, parks, and public venues of all sizes. A derailment, explosion, or spill in any of these areas could have devastating consequences.

Farmers, political leaders, and analysts have also expressed concern that the increasing volume of these oil trains is displacing Washington State products, such as crops, from their customary use of rail for transport to market, resulting in delays and increased costs to Washington State producers.

Due to this heightened awareness, the King County Council on June 23, 2014 passed Motion 14155. It directs the King County Office of Emergency Management (KCOEM) to create an additional annex to the King County Comprehensive Emergency Management Plan (CEMP) to specifically address the risks posed by the increased transport of petroleum by rail. The CEMP annex is due by March 1, 2015. As part of the CEMP update, Council directed KCOEM to prepare this initial Needs Assessment Report.

Motion 14155 also directs KCOEM to explore coordinating multijurisdictional emergency preparedness training activities with federal, state, and local agencies, as well as rail companies operating in King County. These activities are underway. An oil train derailment exercise was held at the Regional Emergency Coordination Center on August 5, 2014, and informed this report.

The Council motion also urged rail companies to share information with emergency managers and first responders on petroleum shipments including routes, frequency, and duration, as well as "their efforts and actions to ensure the safe transport of such commodities."

Other notable developments include the recent work behind the *Washington State Marine & Rail Oil Transportation Study*, mandated by Governor Jay Inslee and the Washington State Legislature. The study's preliminary findings and recommendations have been released for public review and are incorporated into this needs assessment.

Finally, Executive Dow Constantine co-founded the Safe Energy Leadership Alliance; a coalition of local, state, and tribal leaders from across the Pacific Northwest, Montana, and Canada working to raise awareness of the safety risks of oil and coal trains and their economic, cultural, environmental, and health impacts. Executive Constantine co-authored a letter to federal Transportation Secretary Anthony Foxx calling for a more expeditious phase-out of the older type of rail cars and the implementation of other safety measures.

## **WASHINGTON STATE MARINE & RAIL OIL TRANSPORTATION STUDY**

In April 2014, due to the rapid increase in oil train traffic, the Washington State Legislature called for a comprehensive study of marine and rail oil transportation in the State of Washington. In June 2014, Governor Inslee issued a directive to the Department of Ecology to expedite the study and the resulting recommendations. Washington State Department of Ecology released the *Marine & Rail Oil Transportation Study: Preliminary Findings & Recommendations* on October 1, 2014. The findings and recommendations in this study focus on public health and safety, environmental protection, and respect for treaty rights. This study is intended to determine the appropriate legislative, regulatory, and budgetary actions regarding this emerging issue.

The study identified several gaps in the local emergency response capabilities necessary to respond to an oil train incident. The first is a lack of equipment and training to suppress the fire, contain the oil, and monitor the health and safety of responders. Additionally, local responders are largely unaware of the response plans and strategies in place by the railroad operators. In King County, local responders verified these findings.

KCOEM concurs with the study's preliminary findings, particularly its recommendations on prevention, planning, mitigation, and response. KCOEM urges strong support for the report's call for adequate funding of prevention, preparedness, and response programs including permanent funding for assessing oil transportation risks. We further support strengthening the role of Local Emergency Planning Committees (LEPC) in overseeing oil train risks.

## **ADAPTING FEDERAL POLICY**

The federal government has regulatory authority over rail operations. Federal policy regarding the transport of volatile crude oil has been developing rapidly over the last several years and under near-constant revision.

In May 2014, the U.S. Department of Transportation (DOT) issued an Emergency Order requiring rail companies to notify State Emergency Response Commissions (SERCs) of trains carrying over one million gallons of oil in their state. Trains carrying less than one million gallons are not required to be reported.

In August 2014, after more than two years of smaller actions, the U.S. DOT's Pipeline and Hazardous Materials Safety Administration and Federal Railway Administration issued six proposed rule changes that would significantly alter the current practices of volatile crude oil shipments. The proposal would require railroads to: identify routes with the lowest potential risk (i.e. densely populated areas); require mined gas and liquid to be sampled and tested to ensure it is properly classified under Hazardous Materials Regulations; codify the Emergency Order requiring shipment notification to SERCs; apply speed restrictions; require additional braking systems; and adopt stricter design specifications for oil tank cars. Executive Constantine submitted detailed technical comments on behalf of King County. A copy of this letter is attached.

### **ROLE OF KING COUNTY'S LOCAL EMERGENCY PLANNING COMMITTEES (LEPC)**

There are three LEPCs in King County – King County, Seattle, and Kent – representing local governments, emergency response officials, environmental and citizen groups, industry, and interested parties. LEPCs are responsible for developing a hazardous materials plan for their jurisdiction and for collecting information submitted by industry and making it available to the public. Federal law requires all facilities handling significant amounts of hazardous materials to regularly report their use to their respective LEPC. In addition, LEPCs receive reports of hazardous material spills and engage local responders to address gaps and increase response capabilities.

### **KING COUNTY TABLETOP EXERCISE**

On August 5, 2014, King County Office of Emergency Management (KCOEM) conducted a volatile crude oil train derailment tabletop exercise.<sup>1</sup> The exercise involved both public and private entities, including Burlington Northern Santa Fe (BNSF), the Washington State Department of Ecology, the Washington Army National Guard, the United States Coast Guard, the Environmental Protection Agency (EPA), local governments, and emergency response entities. The scenario involved a three-car derailment with one car engulfed in flames and at least one other leaking oil. The derailment site (crossed two jurisdictions each of which had their own fire response capabilities) was located between I-5 and the King County International Airport, and adjacent to a major river. The site included neighborhood residences and businesses, high-voltage transmission lines, and joint storm and wastewater sewer operations.

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<sup>1</sup> Tabletop exercises are discussion-based sessions where team members meet and discuss their roles during an emergency and their responses to a particular emergency situation.



The exercise was designed to integrate and be applicable to multiple agencies, jurisdictions, and disciplines, with three specific objectives:

- (1) Delineate roles and responsibilities among first responders, managers, and rail providers;
- (2) Clarify jurisdictional authorities and along local, county, state, federal and tribal boundaries; and
- (3) Determine methods of comprehensive resource management throughout the response and recovery process.

The exercise assessed 11 of the 31 Federal Emergency Management Agency Core Capabilities in the mission areas of prevention, protection, mitigation, response, and recovery (Figure 1).

## FEMA Core Capabilities

PREVENT	PROTECT	MITIGATE	RESPOND	RECOVER
Planning	Planning	Planning	Planning	Planning
Public Information and Warning	Public Information and Warning	Public Information and Warning	Public Information and Warning	Public Information and Warning
Operational Coordination	Operational Coordination	Operational Coordination	Operational Coordination	Operational Coordination
Forensics and Attribution	Access Control and Identity Verification	Community Resilience	Critical Transportation	Economic Recovery
Intelligence and Information Sharing	Cybersecurity	Long-Term Vulnerability Reduction	Environmental Response / Health and Safety	Health and Social Services
Interdiction and Disruption	Intelligence and Information Sharing	Risk and Disaster Resilience Assessment	Fatality Management Services	Housing
Screening, Search and Detection	Interdiction and Disruption	Threats and Hazard Identification	Infrastructure Systems	Infrastructure Systems
	Physical Protective Measures		Mass Care Services	Natural and Cultural Resources
	Risk Management for Protection Programs and Activities		Mass Search and Rescue Operations	
	Screening, Search and Detection		On-Scene Security and Protection	
	Supply Chain Integrity and Security		Operational Communications	
			Public and Private Services and Resources	
			Public Health and Medical Services	
			Situational Assessment	



*Figure 1. Federal Emergency Management Agency identifies 31 Core Capabilities required to prevent, protect against, mitigate, respond to, and recover from all hazards.*

**Objectives and Demonstrated Performance**

Exercise Objective	Core Capability	Performance Demonstrated
Delineate roles and responsibilities between first responders, emergency managers, and private rail.	Community Resilience, Environmental Response / Health and Safety, Infrastructure Systems, Operational Communication, Operational Coordination, Planning, Public and Private Services and Resources, Supply Chain Integrity and Security, Threat and Hazard Identification	Performed without Challenges
Clarify jurisdictional authorities along local, county, state, federal and tribal boundaries.	Community Resilience, Environmental Response / Health and Safety, Infrastructure Systems, Operational Communication, Operational Coordination, Planning, Public and Private Services and Resources, Public Information and Warning, Supply Chain Integrity and Security, Threat and Hazard Identification	Performed without Challenges
Determine method of comprehensive resource management throughout the response and recovery processes.	Environmental Response / Health and Safety, Infrastructure Systems, Operational Communication, Operational Coordination, Public and Private Services and Resources, Supply Chain Integrity and Security	Performed without Challenges

**Ratings Definitions:**

- **Performed without Challenges:** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- **Performed with Some Challenges:** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.
- **Performed with Major Challenges:** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- **Unable to be Performed:** The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

### Core Capabilities Assessed

Community Resilience	
Mission Area	Mitigation
Description	Lead the integrated effort to recognize, understand, communicate, plan, and address risks so that the community can develop a set of actions to accomplish mitigation and improve resilience.
Assessment / Analysis	King County led a regional effort to identify the state of planning and coordination in regards to response and recovery from a derailed oil train tanker. This capability was comprehensively assessed with substantial discussion and sharing between disciplines and jurisdictions.

Environmental Response / Health and Safety	
Mission Area	Response
Description	Ensure the availability of guidance and resources to address all hazards including hazardous materials, acts of terrorism, and natural disasters in support of the responder operations and the affected communities.
Assessment / Analysis	Key representatives were able to clarify concerns regarding the environmental impact of fighting the fire with retardant foam, the potential for inhalation hazards resulting from a smoke plume, and implications for waterways and sewers contaminated with flammable oil.

Infrastructure Systems	
Mission Area	Response, Recovery
Description	Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community.
Assessment / Analysis	The railways that traverse King County are critical infrastructure. Stakeholders, including private rail operators, discussed methods of coordinating response to and recovery of this vital regional asset.

**Operational Communications**

Mission Area	Response
Description	Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.
Assessment / Analysis	Communication between local jurisdictions was determined to be cohesive and collectively understood. Notification procedures to state and federal authorities varies dependent upon regulatory compulsion to notify of an active incident, and sharing for situational awareness purposes. These notification triggers should be mapped and shared with all involved stakeholders.

**Operational Coordination**

Mission Area	All
Description	Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
Assessment / Analysis	Coordination between response agencies was strong. Notification procedures to state and federal partners could be more inclusive and faster, but will require a better understanding of mandated notification vs. information-sharing, for situational awareness.

**Planning**

Mission Area	All
Description	Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or community-based approaches to meet defined objectives.
Assessment / Analysis	A broad range of jurisdictions, disciplines, and levels of government participated in this event. In addition, each participant was able to share the views and concerns of their respective agency, and bring them into alignment with King County's regional planning practices.

<b>Public and Private Services and Resources</b>	
Mission Area	Response
Description	Provide essential public and private services and resources to the affected population and surrounding communities, to include emergency power to critical facilities, fuel support for emergency responders, and access to community staples (e.g., grocery stores, pharmacies, and banks) and fire and other first response services.
Assessment / Analysis	The majority of discussion centered on a coordinated response to the incident including the perspectives of fire, law enforcement, public health, public works, environmental, and transportation disciplines.

<b>Public Information and Warning</b>	
Mission Area	All
Description	Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.
Assessment / Analysis	Multiple communications platforms will be leveraged during a crisis including opt-in "reverse-911" systems, EAS / WEA, and mobile notifications via IPAWS. The KCOEM Joint Information System will develop messaging to be pushed out via traditional and social media outlets.

<b>Risk and Disaster Resilience Assessment</b>	
Mission Area	Mitigation
Description	Assess risk and disaster resilience so that decision makers, responders, and community members can take informed action to reduce their entity's risk and increase their resilience
Assessment / Analysis	Subject matter experts and railway operators anticipated that up to three tank cars could potentially be derailed, with a resulting fire burning for up to 12 hours without suppression. This gave a clear picture to responders and recovery managers about the scale and impact of this type of incident.



### ***Areas for Improvement***

The tabletop exercise highlighted specific areas of improvement that can be taken now to evolve our response to this type of incident. All areas for improvement are tasked to King County to coordinate with our federal, state, and regional partners.

- Create a regional repository of locations, quantities, and types of equipment necessary to respond to an incident of this magnitude with an emphasis on fire, hazardous material containment, environmental protection, and public health.
- Further clarify the notification process to key stakeholders including the EPA, Washington State Department of Ecology, Public Health – Seattle & King County, Washington Alert & Warning Center, and Washington State Patrol.
- Identify primary Emergency Support Functions and their affiliated representatives who will report to the Emergency Coordination Center during a major incident involving hazardous materials.
- Provide consistent information about hazards and risks associated with crude oil trains to elected officials and community members.

### **RECOMMENDATIONS AND NEXT STEPS**

King County's Comprehensive Emergency Management Plan (CEMP) contains a framework that addresses the coordinated response and recovery from a variety of hazards, including those which would apply to a multi-jurisdictional explosion, hazardous materials, and fire incident. Based on the status of current plans and federal initiatives, KCOEM will amend the King County LEPC Hazardous Materials Annex to the CEMP to include planning for the transport of volatile crude oil by rail. Motion 14155 called for the update to be completed no later than March 1, 2015. KCOEM will meet this deadline. In keeping with current practices, KCOEM will review and update this annex by the end of each calendar year.

Additionally, King County's LEPC will continue to coordinate with the other two LEPCs to exercise hazardous material transportation scenarios and update response plans accordingly.

Furthermore, some LEPC members have recommended that railroad operators develop and share a "worst case scenario" plan with local responders to reveal any gaps that may exist in response planning. KCOEM endorses this recommendation.

Currently the federal government, as the lead authority over railway operators, is considering multiple regulatory initiatives that will further mitigate the threat of a derailment and subsequent explosion of a

train carrying volatile crude oil. However, federal funding support for overall emergency planning and prevention has been cut back significantly in recent years. Emergency management personnel, training and planning efforts have been curtailed and, in some cases, eliminated in several jurisdictions, especially smaller cities and towns. The growing hazards tied to oil trains places an additional unfunded burden on the local emergency management community and our regional ability to plan for and reduce all manner of risks.

While the preliminary results in *Washington State Marine & Rail Oil Transportation Study: Preliminary Findings & Recommendations* call for funding support for research, oversight, and local response, emergency management agencies have identified the broader need for resources to address the growing “capabilities gap” in emergency management planning and mitigation. King County, in partnership with jurisdictions across the state, is pursuing a strategy to raise awareness of this capabilities gap. The Washington State Emergency Management Association is requesting funding for a comprehensive “gap analysis” to determine baseline funding to achieve statewide emergency management capabilities.

KCOEM will continue to monitor the legislation at the federal level and work with our emergency management counterparts to identify and address impacts to the communities we serve.

## REFERENCES

- Department of Transportation, Pipeline and Hazardous Materials Safety Administration, D. (2014). 49 CFR Parts 171,172,173, et al. Hazardous Materials: Proposed Rules. *Federal Register*, 79(148), 45016-45079. <http://www.gpo.gov/fdsys/pkg/FR-2014-08-01/pdf/2014-17764.pdf>
- Washington State Department of Ecology. (2014). Washington State Marine & Oil Transportation Study Preliminary Findings & Recommendations. 14-08-013. <http://www.ecy.wa.gov/programs/spills/oilmovement/2014MRStudy.html>



## King County

**Dow Constantine**  
King County Executive

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September 30, 2014

The Honorable Anthony Foxx  
United States Secretary of Transportation  
1200 New Jersey Avenue SE  
Washington, D.C. 20590

Administrator Cynthia L. Quarterman  
Pipeline and Hazardous Materials Safety Administration  
Department of Transportation  
1200 New Jersey Avenue SE  
Washington, D.C. 20590

RE: Proposed Rulemaking for the Safe Transportation of Crude Oil and Flammable Materials

Dear Secretary Foxx and Administrator Quarterman:

I am deeply concerned about the risks to public safety, health, environment, and economy from the exponential growth in oil train traffic through King County, Washington State, and the Pacific Northwest Region. Movement of oil by rail in Washington State is projected to more than triple in 2014. Of particular concern is the transport of highly volatile Bakken Crude Oil on our region's rail lines.

The Puget Sound region's north-south rail lines carry this highly flammable product through our most densely populated areas and our commercial and industrial districts in the Tacoma-Seattle-Everett metropolitan region. These rail lines closely follow the Puget Sound shoreline, cross rivers and estuaries that are home to salmon species listed for protection under the Endangered Species Act, and pass through and near heavily visited recreation areas and parks. An oil train accident that causes a spill or explosion would have devastating impacts to our public safety, environment, and economy in the central Puget Sound region. Recent oil train derailments, spills, and fires have resulted in evacuations, devastating pollution, and loss of life across the United States and Canada and have heightened our concerns.

The Honorable Anthony Foxx  
September 30, 2014  
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King County has reviewed the Pipeline and Hazardous Materials Safety Administration's (PHMSA) proposed rulemaking [Docket No. PHMSA-2014-0105 (HM-251B)]. The county strongly supports revisions to the Hazardous Materials Regulations that would assess, disclose, and reduce risks from crude oil and ethanol shipments by rail. However, the proposed changes do not go far enough to address imminent safety risks, and we recommend additional changes to protect public safety. King County's detailed technical comments regarding revisions to the proposed PHMSA requirements are attached.

King County and Central Puget Sound are not alone in facing increasing threats from oil transport. Communities across Washington, Oregon, Idaho, Montana, and British Columbia face similar risks, and more than 100 local, state, and tribal leaders have come together through the *Safe Energy Leadership Alliance (SELA)*. More than thirty SELA members have signed a joint letter underscoring the region's heightened level of concern over the negative impacts of oil train traffic on the health, safety, and economy of our region. The joint letter calls for an emergency order establishing a near-term timeline (no more than one year from now) for prohibiting the shipment of Bakken Oil and other highly flammable materials in older, unsafe DOT-111 tank cars. A copy of this letter is also attached.

Thank for your work to review and strengthen federal requirements for transporting flammable liquids. I encourage you to take immediate and bold action to address imminent and growing threats from oil transport through King County and the Pacific Northwest.

Sincerely,



Dow Constantine  
King County Executive

Attachments (3): (A) King County Technical Comments dated 9-30-14; (B) Map: Federally Designated Urban Areas for King, Kitsap, Pierce, and Snohomish Counties; (C) Safe Energy Leadership Alliance Letter dated 9-30-14

cc: The Honorable Larry Phillips, Chair, Metropolitan King County Council  
Carolyn Busch, Chief of Staff, Metropolitan King County Council  
Sung Yang, Chief of Staff, King County Executive's Office (KCEO)  
Joe Woods, Deputy Chief of Staff, KCEO  
Genesee Adkins, State and Federal Relations Manager, KCEO  
Harold Taniguchi, Director, King County Department of Transportation  
Caroline Whalen, County Administrator, King County Department of Executive Services  
Patty Hayes, Interim Director, King County Department of Public Health

# Attachment A: King County Technical Comments

## September 30, 2014

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### High-Hazard Flammable Train Definition

PHMSA is proposing to add a definition for a High-Hazard Flammable Train (HHFT) to mean a single train containing 20 or more carloads of Class 3 (flammable liquid) material. Class 3 material includes acetone, crude oil, ethanol gasoline, and ethyl methyl ketone. The shipping of Class 3 materials is inherently dangerous; the derailment and explosion of even one tank car could lead to loss of life and the disruption of the movement of people, freight and goods in the Central Puget Sound region. Therefore, the county recommends that that the definition of HHFT be strengthened to include a single train carrying one or more carloads transporting a Packing Group 1, Class 3 flammable material.

### Notification to State Emergency Response Centers of Petroleum Crude Oil Train Transportation

Petroleum products moving through the Northwest are changing in product type, transportation mode, and quantity. King County is extremely concerned about the region's ability to respond to an oil train derailment and recently held a tabletop exercise where first-responders were presented with a scenario of an oil train tank car derailment resulting in a massive explosion near the King County International Airport and Boeing Field. This tabletop exercise simulated conditions that would face emergency responders, including coordinating firefighting, medical response, and potential evacuations due to an oil train derailment. This tabletop exercise underscored the importance of having timely and reliable information about materials traveling through the county by rail to inform our emergency response plans.

The PHMSA is proposing to codify the May 7, 2014, DOT-issued Emergency Order that required all railroads to report to State Emergency Response Commissions (SERCs) on the movement of Bakken crude oil in excess of one million gallons. King County recommends expanding required notification to include not only SERCs or other appropriate state delegated entity, but also Local Emergency Planning Committees. Expanded notification would give local emergency responders essential information to train personnel, ensure that appropriate equipment in place, and expedite spill response. Over time, these notifications would provide a more complete picture of the volume, frequency, and type of high-hazard flammable liquids being transported through this region. This information is essential for development of response plans before a spill occurs, and would support collaborative efforts to train and revise emergency response plans.

### Rail Routing

PHMSA is proposing rail carriers must do a route assessment to reduce the risk of a train accident. This provision requires carriers to perform a routing analysis to inform a route selection process that considers 27 safety and security factors. King County supports this route assessment requirement to reduce the risk of HHFT accidents but also requests that the route assessment identify critical infrastructure needs, include assessment criteria for human health, apply this



route assessment requirement to an expanded geographic area to capture additional densely populated areas, and identify speed reductions for HHFTs.

Increased inspections, repair and maintenance are required for assuring improved safety for our residents, economic centers and environment. Route assessments should, at a minimum, identify critical needs for additional crossing gates and grade separation to reduce risk of collision, derailment, and explosion. Train routing should occur only where rail classification is no lower than 130 pound rail (130 lbs./yd.). Safety factors should also include potential risks to human health.

The "High Threat Urban Area" used as a basis for the proposed route assessment excludes a large portion of the urbanized Central Puget Sound region including the cities of Tacoma and Everett and its surrounding metropolitan areas. King County recommends use of the Federally Designated Urban Areas rather than High Threat Urban Areas to provide more comprehensive coverage of highly populated urban areas. Federally Designated Urban Areas that have been established in Puget Sound Metropolitan Area under federal transportation requirements (Title 23, Section 103, United States Code). Known as the "Federal-aid Urbanized" and "Federal-aid Urban" areas, the map for King, Kitsap, Pierce, and Snohomish counties is designated by the Puget Sound Regional Council in cooperation with the Washington State Department of Transportation and the Federal Highway Administration (please see attached map).

#### **Classification and Characterization of Mined Gases and Liquids**

State and local governments and first responders need accurate and timely information about the types of materials being transported by rail and their associated properties and risks. The PHMSA is proposing, and King County supports, development of regulations that require the classification and characterization of mined liquids and gases to ensure proper shipping methods and hazard communications. Under the proposal, an offeror must develop a sampling and testing program for all mined gases and liquids that addresses: (1) frequency of sampling and testing; (2) sampling at points along supply chain; (3) sampling methods to ensure a representative sample of entire mixture; (4) testing methods; (5) statistical justification of sampling frequency; (6) duplicate samples for quality assurance; and (7) require offerors to certify sampling and testing program is in place, to document the testing and sampling program, and make results available to DOT personnel, upon request. In addition to these proposed requirements, the county recommends that sampling results be verified by a third party and made available to state and local governments for use in developing hazard mitigation and spill response plans.

#### **Speed Reduction**

Train routing in the central Puget Sound region is extremely constrained by topography, proximity to Puget Sound, and historical development patterns. There are no alternative north-south routes for HHFTs that do not travel through densely populated urban areas and sensitive ecological areas. King County seeks establishment of mandatory speed reduction requirements commensurate with risks based on type of material transported, type of rail car and braking system, rail conditions, and surrounding development patterns and natural environment. King County recommends that speed reduction requirements be applied to a broader geographic area

better reflecting the location of highly populated urban areas. Specifically, King County recommends that Federally Designated Urban Areas be used rather than High Threat Urban Areas for the purpose of establishing requirements for reduced speeds for HHFTs.

While the county seeks an immediate ban of DOT-111 tank cars, it supports the recommendation for an immediate speed restriction of 30 mph for these tank cars. In Federally Designated Urban Areas, the speed limit for all HHFTs should be 30 mph, unless it can be demonstrated through a route assessment that a 40 mph speed limit, combined with new tank standards (DOT Specification 117 tank car), can be supported without additional risk of derailment and explosion.

#### **New Tank Cars for High-Hazard Flammable Trains**

PHMSA is proposing several revisions to the Hazardous Materials Regulations that would change the specification requirements for rail tank cars authorized to transport crude oil and ethanol. The changes would require a new tank car performance specification (DOT Specification 117 tank car) that would be phased in over time depending on the packing group of flammable material. In addition, PHMSA is proposing to revise the bulk packaging rules for hazardous materials to provide the timeline for continued use of existing DOT-111 tank cars and recommends the phase out of DOT-111 tank cars for Packing Group 1 (Bakken oil and ethanol) after October 1, 2017.

King County supports Option 1, the PHMSA and Federal Railroad Administration designed car, also known as the DOT Specification 117 tank car. A DOT Specification 117 tank car would provide thermal protection to survive a 100-minute pool fire, protect top fitting and bottom outlets during a derailment, improve braking performance, and would minimize the consequences of a derailment of tank cars carrying crude oil. The county also seeks an immediate phase out of DOT-111 tank cars for use in transporting Packing Group 1, Class 3 flammable materials. The risks of derailment, spill, and explosion are too high to allow for three more years of transport of Class 3 flammable materials in older, unsafe tank cars.

#### **Hazardous Materials: Oil Spill Response Plans for High-Hazard Flammable Trains**

In conjunction with a notice of proposed rulemaking (NPRM) for Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, PHMSA is seeking comment on potential revisions to its regulations that would expand the applicability of comprehensive oil spill response plans (OSRPs) to HHFTs. Current regulations require a basic OSRP for oil shipments in an oil tanker having a capacity of 3,500 gallons or more and a comprehensive OSRP is required for oil shipments in an oil tanker containing more than 42,000 gallons (current capacity of a DOT-111 tank car is approximately 30,000 gallons). King County recommends comprehensive OSRPs be required for any oil tankers regardless of capacity. The derailment and explosion of even one tank car could lead to loss of life, environmental damage, and the disruption of the movement of people, freight and goods in the Central Puget Sound region.

King County further recommends that the OSRP be developed in consultation and shared with SERC or other appropriate state delegated entity, Local Emergency Planning Committees, and

local emergency responders to ensure all state and local hazard materials spill response plans are consistent with the shippers OSRPs.

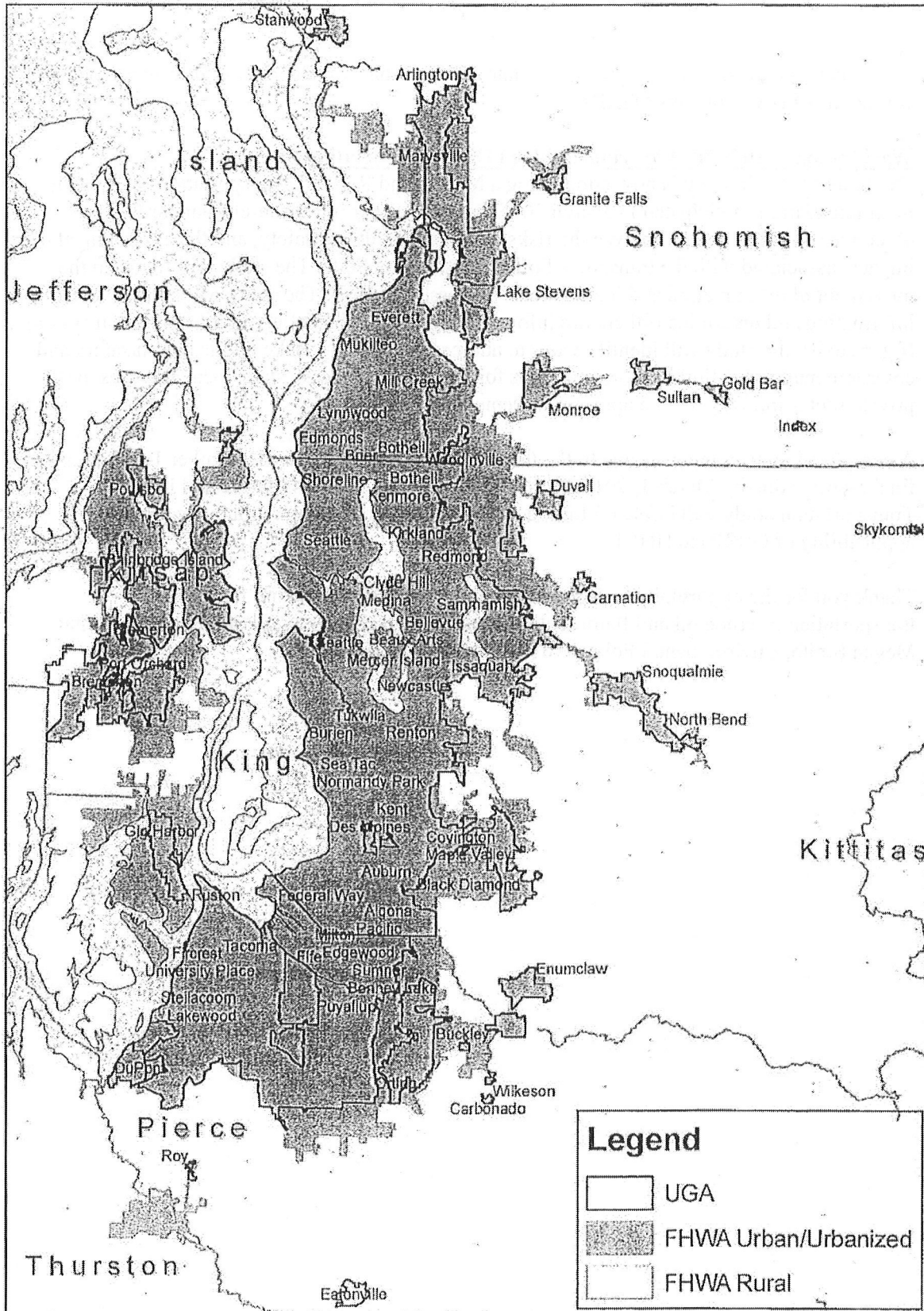
**Washington State's 2014 Marine and Rail Oil Transportation Study**

The State of Washington is now conducting a Marine and Rail Oil Transportation Study with recommendations anticipated in March 2015 that can further inform safety standards. The objective of the study is to analyze the risks to public health and safety, and the environmental impacts associated with the transport of oil in Washington State. The study will focus on the movement of oil in marine and inland areas, by vessel, and rail. The study will compile existing information and determine if there are information gaps in the existing oil transportation system. If gaps exist, the study will identify ways to address the risk and make public health/safety and environmental protection recommendations for appropriate federal, state, local agencies, or the private sector/industry to take appropriate remedial action.

A completed interim report is due to the Governor and Legislature by December 1, 2014, and a final report is due by March 1, 2015. King County expects that this Marine and Rail Oil Transportation study will inform future recommendations regarding regulations on the applicability of OSRPs to HHFTs.

Thank you for the opportunity to comment on the proposed rulemaking for the safe transportation of crude oil and flammable materials. If you have any questions, please contact Megan Smith, Environmental Policy Advisor, at (206) 263-9605.

# Federal Urban/Urbanized and Rural Areas as of October 2013





# Safe Energy Leadership Alliance

September 30, 2014

The Honorable Anthony Foxx  
Secretary of Transportation  
U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Secretary Foxx:

We are members of the Safe Energy Leadership Alliance – a coalition of more than one hundred local, state, and tribal leaders from across the Pacific Northwest, Montana, Idaho, and Canada – seeking a full assessment and disclosure of the economic, cultural, environmental, health, and safety risks posed by coal and oil trains.

We respectfully request an immediate emergency order establishing a clear, near-term timeline for prohibiting the shipment of Bakken Oil and other highly flammable and explosive crude oil in older, unsafe rail cars known as DOT-111 tank cars.

While we represent communities large and small, urban and rural, across a vast geographic area, we share a common mandate to protect the health, safety, and welfare of our residents. Recent oil train derailments, spills, and fires have resulted in evacuations, devastating pollution, and loss of life across the United States and Canada. We are deeply concerned about the growing oil train traffic through the heart of our communities.

Because of historic development patterns, rail lines carrying this highly flammable product often traverse densely populated areas, commercial and industrial districts. They pass through or near many of our popular parks and recreation areas, next to our rivers and lakes, and along hundreds of miles of Puget Sound shoreline. A derailment, explosion, or spill in any of these areas would be devastating.

We understand and appreciate your efforts to address this important safety issue through promulgation of new regulations. But we feel strongly the time required to bring these rules into effect is not commensurate with the documented imminent and growing threat that these aging oil tank cars pose to the safety and livelihood of the people and communities we are pledged to protect.



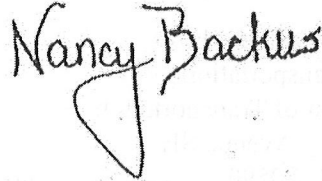
Secretary Foxx  
September 30, 2014  
Page 2

Therefore we, the undersigned members of the Safe Energy Leadership Alliance, respectfully urge you to use your authority to immediately issue an emergency order with date certain (no more than one year from now) for halting use of legacy DOT-111 tank cars in the transport of highly flammable crude oil and establishing financial penalties for violating this order.

Sincerely,



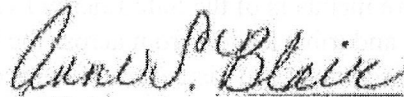
Dow Constantine  
King County Executive



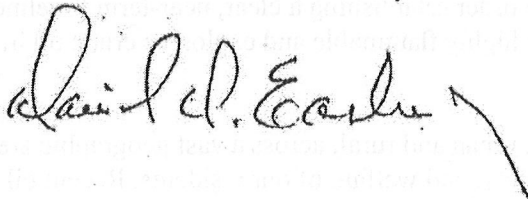
Nancy Backus  
Mayor, City of Auburn, WA



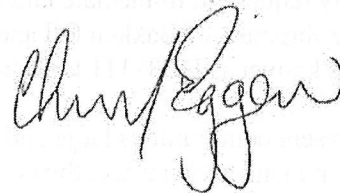
David Baker  
Mayor, City of Kenmore, WA



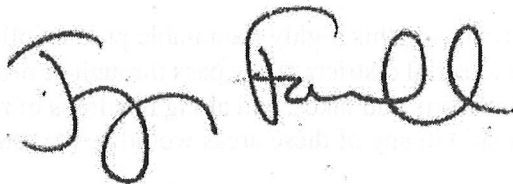
Anne Blair  
Mayor, City of Bainbridge Island, WA



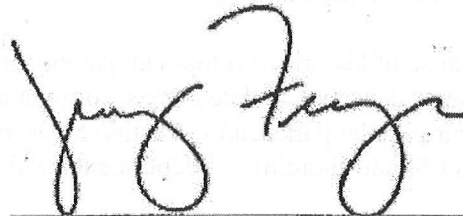
Dave Earling  
Mayor, City of Edmonds, WA



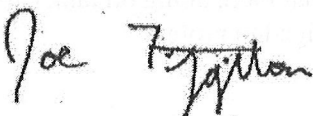
Chris Eggen  
Deputy Mayor, City of Shoreline, WA



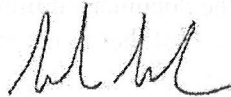
Jessyn Farrell  
Washington State Representative (46<sup>th</sup> District)



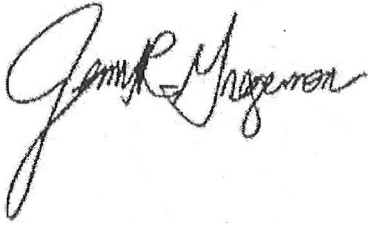
Jeremy Ferguson  
Mayor, City of Milwaukie, OR



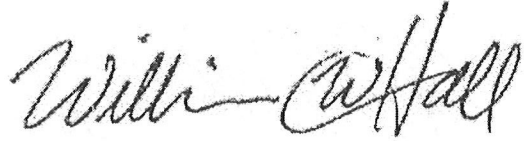
Joe Fitzgibbon  
Washington State Representative (34<sup>th</sup> District)



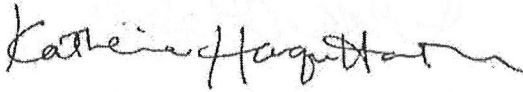
Mark Gamba  
Councilmember, City of Milwaukie, OR



Jennifer Gregerson  
Mayor, City of Mukilteo, WA



Will Hall  
Councilmember, City of Shoreline, WA



Katherine Haque-Hausrath  
Commissioner, City of Helena, MT

Stacia Jenkins  
Councilmember, City of Normandy Park, WA



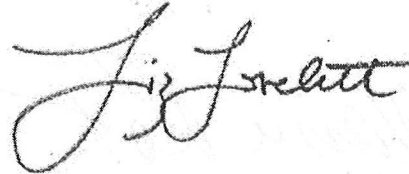
Ruth Kagi  
Washington State Representative (32<sup>nd</sup> District)



Jeanne Kohl-Welles  
Washington State Senator (36<sup>th</sup> District)



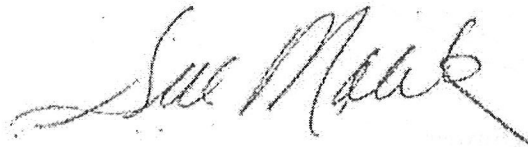
Michael Lilliquist  
Councilmember, City of Bellingham, WA




Liz Lovelett  
Councilmember, City of Anacortes, WA



Margie MacDonald  
Montana State Representative (54<sup>th</sup> District)



Sue Malek  
Montana State Senator (46<sup>th</sup> District)




John McCoy  
Washington State Senator (38<sup>th</sup> District)



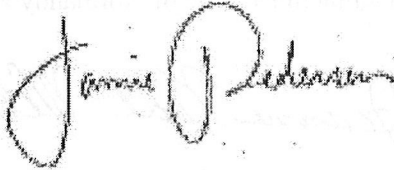
John Nehring  
Mayor, City of Marysville, WA



Mike O'Brien  
Councilmember, City of Seattle



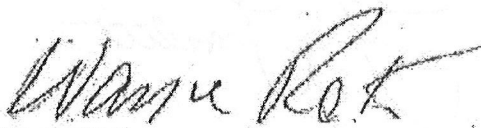
Tina Orwall  
Washington State Representative (33<sup>rd</sup> District)



Jamie Pederson  
Washington State Senator (43<sup>rd</sup> District)



Larry Phillips  
King County Councilmember (District 4)



Wayne Roth  
Deputy Mayor, City of Bainbridge Island, WA



Cindy Ryu  
Washington State Representative (32<sup>nd</sup> District)



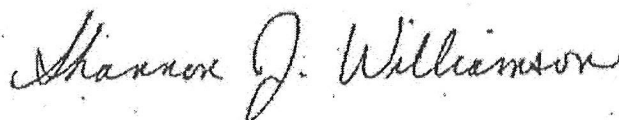
John Snyder  
Councilmember, City of Spokane, WA



Ben Stuckert  
Council President, City of Spokane, WA



Ryan Walters  
Councilmember, City of Anacortes, WA



Shannon Williamson  
Councilmember, City of Sandpoint, ID