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DEPARTMENT OF HEALTH

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January 18, 2013

GPT/BNSF Custer Spur EIS Co-Lead Agencies
c/o CH2M HILL
1100 112th Avenue NE, Suite 400
Bellevue, Washington 98004

Thank you for the opportunity to provide comments on the scope of the Environmental Impact Statement (EIS) for the proposed Gateway Pacific Terminal/BNSF Custer Spur project. The Department of Health's comments and recommendations are enclosed, as well as a list of studies you may find useful for getting more information on the health topics we discuss in our comments and recommendations.

For each health topic we address in our comments, we request the statement include an analysis of potential impacts on the health of the people of Washington, and identifying strategies to maximize positive health impacts and minimize negative health outcomes.

Our comments focus on public health impacts directly related to our scope of responsibility. We understand there are other concerns associated with the transport and subsequent burning of coal in Asia that may have global health effects including global warming, climate change and greenhouse gas emissions from coal extraction, processing, and burning of coal. These impacts may have far-reaching population health implications, including in this state.

This project involves transporting coal by train across the entire state to the Gateway Pacific Terminal project site. It includes the areas where coal will be loaded and the areas in and around the proposed shipping lanes. For these reasons, we request the scope of the statement include potential health impacts and mitigation strategies for the entire length of the statewide train corridor in addition to those at the project site. We also ask that the statement address the potential health impacts and risk reduction strategies in the Washington shipping lanes proposed for this project.

I urge the co-lead agencies to use a Health Impact Assessment for this project. Health Impact Assessment is a tool that communities and decision-makers can use to objectively evaluate the potential health effects of a project before it is built. Health Impact Assessment includes a process for bringing together public input and project-relevant data to make recommendations that maximize positive health impacts and minimize adverse health outcomes.



GPT/BNSF Custer Spur EIS Co-Lead Agencies

January 18, 2013

Page 2

If you have questions about these comments or need technical assistance from the state health department during the Environmental Impact Statement scoping process, please contact Peggy Johnson at 360-236-3053 or by email at peggy.johnson@doh.wa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary C. Selecky". The signature is fluid and cursive, with a large initial "M" and "S".

Mary C. Selecky
Secretary

Enclosures

cc: Maryanne Guichard, Department of Health
Peggy Johnson, Department of Health

Washington State Department of Health Comments on the Environmental Impact Statement (EIS) for the proposed Gateway Pacific Terminal/BNSF Custer Spur project
January 18, 2013

Air Quality – Coal Dust

During transport in open air rail cars, some of the coal becomes airborne, causing airborne coal dust. More coal dust will be generated at the port during loading and unloading operations and from uncovered coal stock piles. Coal dust would also be produced during ship transport. Airborne coal dust can be breathed-in by people in the vicinity of coal-carrying railway traffic and the port. Breathing coal dust is linked to respiratory diseases such as pneumoconiosis, chronic obstructive pulmonary disease, and decreased lung function.

The coal dust will settle and accumulate on land, with the highest deposits expected near the train tracks and unloading operations area. Wind and stormwater can cause coal dust to spread over larger areas of land and water. Coal contains lead, arsenic and mercury. Lead and mercury are neurotoxins that can damage the brain and nervous system. Exposure to lead is linked to anemia, decreased kidney function, and hypertension. Arsenic is a human carcinogen and is associated with lung, kidney, liver, and skin cancer. Ingesting arsenic can result in anemia, peripheral neuropathy, skin and vascular lesions, and liver and kidney damage.

The state Department of Health requests the EIS review human health impacts and provide an assessment of the risks of exposure to coal dust expected from the proposed coal transport and operations for the following exposure methods:

- Inhalation of airborne dust and its potential short and long-term health impacts on respiratory illnesses and lung function for residents along the rail lines and near the shipyard. The potential health impacts on rail and shipyard workers also should be determined.
- Ingestion and/or inhalation of lead, mercury, and arsenic from land contamination, consumption of food grown on this land and shellfish harvested from contaminated waters.

A full description of the chemical composition of the coal that will be transported should be included in the review to provide greater accuracy in risk assessment and characterization.

In addition we request that strategies to mitigate the impacts of coal dust inhalation and/or ingestion be included in the EIS.

Air Quality – Diesel Exhaust

Diesel exhaust will be generated by train and ship diesel engines used to transport coal and from heavy equipment used at the port facility. Diesel exhaust contains particulate matter, nitrogen oxides (NO_x), sulfur dioxide (SO₂), and polycyclic aromatic hydrocarbon (PAHs). Diesel exhaust also contains known human carcinogens such as benzene and formaldehyde.

Diesel exhaust is a human carcinogen based on evidence linking it with lung and bladder cancers. Diesel particulates can cause lung damage, worsen allergies and asthma, and increase the risk of lung and cardiovascular diseases. It can decrease lung function and increase

susceptibility to respiratory infections. Fine particulate matter is associated with the development and worsening of respiratory and cardiovascular diseases, and lung cancer.

Air Quality – Vehicle Idling

Exhaust from idling vehicles is produced by trains, ships, and cars. Locomotives idle while waiting for other trains to clear the tracks. Trains and ships frequently idle their engines to maintain power or critical onboard functions. The project would substantially increase train traffic and cause automobile traffic delays at train crossings, resulting in pollution from idling vehicles. Idling vehicle emissions include volatile organic compounds, carbon monoxide, nitrogen oxides, and particulate matter. Volatile organic compound exposure is linked to liver, kidney, and nervous system damage. Carbon monoxide exposure is linked to headache, dizziness, confusion, nausea, and neurological and cardiac complications.

The state health department requests the statement review the potential health effects of diesel exhaust from train and ship operations and from the idling of trains, ships, and automobiles. We further request that the EIS include strategies to reduce the impacts on air quality caused by diesel exhaust and vehicle idling.

Noise

According to the World Health Organization, “Excessive noise seriously harms human health and interferes with people’s daily activities at school, at work, at home and during leisure time. It can disturb sleep, cause cardiovascular and psycho physiological effects, reduce performance and provoke annoyance responses and changes in social behaviour.” Studies have shown that as environmental noise increases, children’s performance on tests of reading ability and memory decreases. Research also shows that noise from road traffic and airplanes can negatively affect cardiovascular health in adults, and may influence blood pressure in children. And studies have found links between environmental noise exposure and psychological health and feelings of well-being.

We request the statement include a complete assessment on the impacts of added noise on health from transporting coal across Washington and from the port operations involving transfer and loading of coal. A complete assessment should include the determination of current noise levels at different distances from the tracks and the port using standard metrics, such as day night averages and the projected noise levels from transporting coal and related port operations. The assessment should also include the cumulative impact of noise levels (i.e. current noise levels added to noise related to coal transport and related port activities) within specific ranges, given current housing patterns and location of schools and other critical facilities, such as hospitals, and emergency services. Strategies to address these impacts should also be included in the EIS.

Railroad Traffic – Access to Emergency Care

When emergency medical services must wait for trains at crossings, it increases the time it takes to reach patients in medical distress and/or the time it takes to transport patients to the hospital. The additional train activity of this project may affect community access to emergency care, both pre-hospital emergency medical and hospital care. Both are essential components of our emergency care system. Any delays in responding to requests for emergency medical services –

specifically responses to trauma, cardiac, and stroke-related incidents – can worsen patient outcomes. Patients in cardiac arrest are more likely to survive when paramedics or emergency medical technicians arrive quickly. Any delay in response also affects the emergency medical services providers’ ability to quickly evaluate the patient’s condition to best match their medical needs with the most appropriate hospital. When decisions on patient care are influenced by transport time rather than the best facility for the patient’s condition, the likelihood of a poor outcome rises. Survival rates of trauma patients increase when the patient is taken to the right hospital in the right amount of time.

Railroad Traffic – Impact of Train Derailment on the Emergency Medical Services and Trauma System

Increased train traffic increases the chances of train derailment and subsequent release of hazardous material. Derailment impacts emergency medical services system by overloading local pre-hospital and hospital services with incoming patients. Excess patients and those requiring specialized medical or trauma services may require transport to hospitals outside the area, which exposes them to significant transport times. Release of hazardous materials can jeopardize the health and safety of response personnel as well as people in the derailment area.

The state health department requests the statement include an assessment of impacts of access to emergency care along the transport routes. We also ask that the statement include an assessment of the potential human health hazards directly and indirectly associated with train derailment. We further request that the EIS identify strategies to eliminate or minimize delays in responding to emergency requests for service.

Railway Traffic – Pedestrian Safety

With increased train traffic, there is a corresponding rise in the risk of traffic and pedestrian-related train collisions.

We request the statement include an assessment of the impact of increased train volumes on traffic and pedestrian safety, i.e. the potential increase in pedestrian and vehicle passenger injuries and fatalities. This evaluation should assess the safety of existing highway-rail crossings, considering safety infrastructure at the crossings and the safety history of each crossing along the proposed route. Potential solutions to address these risks should be included the EIS.

Railway Traffic – Recreation

Increased rail traffic from coal transport will likely impact enjoyment and participation of recreational activities in urban and rural areas along the railway and in the areas near the transport station. The noise, vibrations, and traffic from the railway will likely impact recreational access and enjoyment in these areas where residents enjoy walking, boating, fishing, cycling, and other physical activities as part of a healthy lifestyle. The Cherry Point Aquatic Reserve is currently used for fishing, crabbing, and boating. These recreational activities will be limited by construction of the industrial pier and the increased barge traffic. The physical and psychological benefits of recreation are well documented, as are the detrimental aspects of limited physical activity.

The state Department of Health requests the statement assess the impact of increased rail and cargo ship traffic on recreational activities along the proposed rail route and within Puget Sound. This analysis should include but not be limited to the effects on recreation in national forests, state and local parks, rivers, the Cherry Point Aquatic Reserve, recreational activities in city and county parks along the proposed transportation route, and in the immediate area where the transport station and pier are proposed to be located. We ask that mitigation strategies also be included in the EIS.

Economic Development and Employment

A population's health can be positively influenced by economic development and employment. During the proposed two-year construction period, there will be additional construction jobs plus indirect jobs from construction and local purchases. Once the transport operations begin, the community can anticipate ongoing direct and indirect jobs.

We ask that the EIS scope include the health benefits from increased economic development and employment.

Community Wellness

Consideration of public health goes beyond the above impacts. Based on the World Health Organization definition of health, "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity," consideration must also be given to impacts on mental health and well-being.

Due to evidence linking the built-environment to population health outcomes, we ask that the statement assess the mental health and social well-being impacts of this proposed project.

Studies regarding health impacts referenced in the Washington State Department of Health EIS Scoping Comments on the Gateway Pacific Terminal/BNSF Custer Spur Project, January 18, 2013

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Community Wellness

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