

June 10, 2016

Dear Co- Lead Agencies:

Please accept these comments on the DEIS for the Millennium Bulk Terminal proposal in Longview WA. These comments are on health impacts. We will be submitting comments on other concerns separately. Health has to be talked about within the context of environmental justice or intersectionality. While this issue was looked at, at the site of the proposal, it is clearly lacking in regards to the rail communities that are connected to this proposal. It is a grave omission to not consider rail communities and health in the DEIS. In fact, it is an action of environmental injustice to not consider health impacts to communities outside of Longview and especially outside of the state of Washington. The proposed facility does not exist in a vacuum, and the trains that may travel along the rail routes will have very real and negative impacts on the hundreds of communities from the Utah and PRB mines to Longview.

Often low income and persons of color communities live near tracks all along the rail lines from mine to terminal. Moving is not an option to get away from the impacts of coal dust, diesel particulate matter, and noise, long waits at at-grade crossings, accidents at crossings, potential derailments, and fires started by trains, and so forth. People who live along the tracks cannot afford to move or they don't want to. Those that don't want to have investments in their neighborhoods, for many reasons. Some families live, work or have children that go to the schools near tracks. For some families, they have constant exposure to trains because they live and work near tracks or their children live and go to school near tracks or railyards. These conditions noted above, that is, coal dust, etc. already exist and will be compounded with more trains that this facility, if built, will bring.

The fact sheet on "Social and Community Resources" on the project says that "A separate report, a Health Impact Assessment, is being prepared for the proposed project. This report will use the analysis in the environmental study to consider impacts on human health." The HIA should have been done by the time the DEIS was released. Children, the elderly, pregnant women, persons with health conditions like chronic obstructive pulmonary disease, asthma, diabetes and heart disease, and women over 50 are particularly susceptible to the negative health impacts of coal. Health impacts are greater on children because they drink, eat and breathe more than adults do. Please see the work of Oregon and Washington Physicians for Social Responsibility via their websites that provide many scientific studies on health concerns and studies. In addition, there are links to air pollution and noise studies at the bottom of these comments.

We request that the HIA, when completed, thoroughly looks at the following impacts and includes a public comment process:

1. Please show a pollution contours map (isopleths) that will look at the Diesel Particulate Matter (DPM) and other toxins that people will be exposed to up to two miles from the track at various distances, that is, 50 feet, 100 feet, 200 feet etc.
2. Please show how many people live within the above feet distances along the entire transportation routes, and have that analysis also include projected populations. How many of them are children, the elderly, people of color, and have underlying diseases, and live in poverty?

3. List the number of schools, hospitals, assisted living facilities, libraries, and other places that people congregate on a daily basis within two miles of the tracks along the transportation routes.
4. Show the increased risks for heart attacks, strokes, COPD exacerbations, pulmonary and cardiovascular disease, cancer, asthma, ER visits, etc. from increased DPM on current and projected populations. Who pays for the costs and what are the economic costs?
5. Particular attention needs to be paid to communities near a rail yard, and not just tracks. Please read “Experiences of a Rail Yard Community: Life is Hard,” in Vol. 77 Number 2 of *Journal of Environmental Health*, September 2014.

Coal dust is spread along our rail communities via uncovered hoppers. Depending on weather conditions, it can be spread across the landscape into water, farmland, towns, playgrounds, parks, etc. at varying distances. Coal dust has microscopic pollutants that are harmful to health. Chronic bronchitis, emphysema and difficulty breathing can result from inhalation of coal dust. Eating food and fish contaminated with coal dust can introduce these toxins to your body as well. Coal dust can also contain lead, mercury and arsenic. The Washington Department of Health’s letter on the Gateway Terminal proposal at Bellingham stated the above.

Diesel Particulate Matter combined with coal dust has significant special health problems. Please see the Daniel Jaffe study done on coal trains in the Columbia River Gorge in November of 2015. Dr. Jaffe is a professor of atmospheric and environmental chemistry at the University of Washington. His study was published in the journal *Atmospheric Pollution Research*.

The 16 trains generated by the proposed MBT in uncovered cars could have real consequences for health along the rail routes. In just over 400 miles of rail travel the average 125-car coal trains would emit 12,125 pound of coal dust, even under good conditions. We request the HIA to show:

1. The effects of coal dust and spills along the rail routes, especially on farmland, waters, and grazing animals used for human consumption.
2. How many children, elderly, those with health problems, etc. will be exposed to coal dust?
3. The life of the MBT terminal is 50 years. The study should look at the cumulative effects of coal dust and health during the operation life of the terminal along the rail ways.
4. Will the coal dust need to be cleaned up? If so, how much will it cost and who pays for it?
5. Look at the return cars on the way back to the mines. Carryback coal is in the hoppers since they are not completely emptied at the terminal. Please analyze the loss of the residual dust from the carryback coal.

Noise pollution is a known contributor to health problems. According to Oregon Physicians for Social Responsibility it can cause sleep disturbance, cardiovascular disease, stroke and ischemic heart disease, cognitive impairment in children, hypertension, arrhythmia and increased rate of accidents and injuries along with an exacerbation of mental health disorders. It is difficult to get a Federal Railroad Administration approved quiet zone in train neighborhoods. The HIA should:

1. Determine which rail cities are at greater risk for noise and vibration, and who lives in those communities. Please use noise isopleths.
2. Look at squeaking wheels, train engines horn blasts within 50, 100 feet and so on for up to two miles along the entire transportation routes.

3. At grade crossings have horns blowing. How many at grade crossings are there on the rail routes? How many trains go through, of all kinds, are on the tracks. At what times? How many are during the typical sleeping hours?
4. Interviews should be conducted in higher risk communities for noise about sleeping patterns, concerns, and disturbances. Please also look at the research on noise pollution and especially train noise pollution.
5. What if train noise can't be mitigated who pays for health care increases that may result from increased noise pollution?

Emergency Services: At grade crossings block vehicular traffic irritating drivers but sometimes causing delays in emergency services for fires, and most especially medical emergencies.

1. Look at at-grade crossings in all rail communities and determine the most vulnerable by calculating the number of all trains crossing the tracks.
2. Look at all the unprotected rail crossings that exist on the rail lines. Only 44 rail crossings were studied in Washington State but there are hundreds on the rail lines.
3. Consider in the study that emergency vehicles have to often cross twice at at-grade crossings coming and going to an emergency. Some of the rail lines are double-tracked. That presents a situation that increases train traffic, even if one train has passed, another may stop a vehicle on the way back through the crossing. Double and triple train track crossings need to be inventoried.
4. Look at alternative crossings that emergency vehicles could use, and how long it would take them.
5. What are the anticipated coal train derailments along the routes?
6. Is there a system available for EMS vehicles to be notified of trains crossing at –grade? If so how much is it and who pays for it?
7. What are some of the foreseeable consequences if a fire burns down a building before first responders can get to it or someone dies en-route to hospital because trains are blocking the way?
8. What is the psychology of community members and first responders worried about at grade crossings and trains blocking it in emergencies?

Drinking Water: Communities can't live without drinking water. Often our drinking water also is a part of water use in our activities of daily living.

1. Identify all sources of drinking water, domestic and municipal, for rail communities in the HIA.
2. How many people are served by the drinking water systems?
3. If drinking water is harmed due to derailments or pollutants, who pays for alternative sources of drinking water?
4. Who will pay for the monitoring and clean up of the drinking water?
5. Identify all EPA sole source drinking aquifers. What are the consequences for a contaminated aquifer especially within the context of the EPA designation?
6. What would contamination of water do to recreation and fishing especially with water used for drinking, wildlife and recreating?

Health Impacts of Climate Change: The DEIS says that about 37.6 million metric tons of greenhouse gas emissions would occur over a 20 year period, if the terminal is built. This includes construction. The fact sheet states that possible impacts from greenhouse gas emissions are global. They could increase forest

fires, melt more snow and ice, cause risks to forests, fish, wildlife, agriculture, freshwater supplies, tourism, irrigation and so forth. These all have health risks. The HIA should:

1. Consider the impacts of increased forest, field and brush fires on rail communities.
2. Consider the impacts of increased heat on urban communities. Heat waves cause more deaths in the world than cold streaks.
3. What populations are most vulnerable to global climate change and why?
4. Will severe weather due to global climate change cause problems such as heavy winds and rain, landslides, etc. Who will pay for the deaths, injuries and the relocations of those who suffer from any of the above?
5. Will we see an increase of West Nile Virus or Lyme diseases or others as the climate warms?
6. What about impacts that is disproportionate on low income communities and communities of color? They need to be studied.

Surfactants: Coal is uncovered and at the mines it is applied to keep coal dust down. But we know little about it. The HIA should consider

1. Which surfactants will be used?
2. What are the hazards to humans who apply it, and who breathe it in during transit?
3. Have any of the surfactants been tested for chronic toxicity?
4. What are the longer term human and environmental health impacts?
5. Can it leach out of cars during rainstorms?

In conclusion, please read the studies below and include a thorough, detailed, mines to rails to facility HIA. Thousands of people in Spokane County alone will be exposed to increased air pollution from the sheer number of trains from this proposal.

Sincerely,

Laura Ackerman
Organizer and Director
The Lands Council
Spokane, WA

[Air pollution exposure may worsen lupus in children](#)

09 Jun 2016

The results of a new study show for the first time that an individual's exposure to air pollution may have a direct role in triggering disease activity as well as airway inflammation in children and adolescents with systemic lupus erythematosus. Excerpt: **The WHO has estimated that one in eight of total deaths globally are the result of air pollution exposure, confirming air pollution as the world's largest single environmental health risk. Air pollution is estimated to cause nearly half a million premature deaths each year in the European Union.**

[Air Pollution Exposure During Pregnancy Linked With Asthma Risk](#)

Feb. 9, 2016 —

[Road Traffic Pollution as Serious as Passive Smoke in the Development of Childhood Asthma](#)

Mar. 21, 2013

[One in 20 Cases of Pre-Eclampsia May Be Linked to Air Pollutant](#)

Feb. 6, 2013

[Exposure to Air Pollution During Second Trimester of Pregnancy May Be Associated With Increased Asthma Risk in Children](#)

May 19, 2014

[Explanation for Increased Asthma Severity in Children Exposed to Diesel Exhaust from Traffic](#)

Sep. 23, 2013

[Fine Particulate Air Pollution Linked With Increased Autism Risk](#)

Dec. 18, 2014

[Exposure to Traffic Pollution During Pregnancy Can Damage Future Child's Lungs](#)

Oct. 20, 2014

[Air Pollution May Affect Levels of Obesity-Related Hormone](#)

Sep. 8, 2014

[Traffic-Related Air Pollution Associated With Changes in Right Ventricular Structure, Function](#)

Mar. 7, 2014

[Pregnant Mothers at Risk from Air Pollution, California Study Suggests](#)

Oct. 7, 2011

[High-Pollution Days Linked to Increased Risk of Cardiac Arrest](#)

Oct. 7, 2014

[What Happens on the Molecular Level When Smog Gets Into the Lungs?](#)

Sep. 16, 2015

[Air Pollution Increases Risk of Early Death in Gothenburg](#)

Mar. 24, 2016

New Research Shows Air Pollution Can Reduce Children's Lung Function

Date: September 9, 2004

[Even Low Levels of Air Pollution Appear to Affect Children's Lung Health](#)

Apr. 25, 2016

Air pollution associated with higher rates of chronic kidney disease

Date: November 16, 2014

[Elderly Have Higher Risk For Cardiovascular, Respiratory Disease ...](#)

Mar 9, 2006

[Evidence growing of air pollution's link to heart disease, death ...](#)

May 11, 2010

[Ethnic minorities, deprived communities hardest hit by air pollution ...](#)

Jan 26, 2015

[Exposure to particulate air pollutants associated with numerous ...](#)

Apr 29, 2016

[Air pollution below EPA standards linked with higher death rates ...](#)

Jun 4, 2015

[Long-term exposure to air pollution may pose risk to brain structure ...](#)

Apr 23, 2015

[Air pollution and cardiovascular disease: Increased risk for women ...](#)

Nov 25, 2015

[Road traffic noise linked to deaths, increased strokes: Living in an ...](#)

Jun 23, 2015

[Number of strokes increase as pollution levels rise -- ScienceDaily](#)

Feb 17, 2016

[Fine particulate matter associated with slight increased mortality in ...](#)

Sep 8, 2015

[Exposure To Fine Particle Air Pollution Linked With Risk Of ...](#)

Mar 8, 2006

[Air pollution affects young people's psychiatric health](#)

08 Jun 2016

