



November 18, 2013

Via Website Comment Form <http://millenniumbulkeiswa.gov/submit-comments.html> and millennium

Millennium Bulk Terminals EIS

c/o ICF International

710 Second Avenue, Suite 550

Seattle, WA 98104

Re: Scoping Comments on Proposed Millennium Bulk Terminals
Longview (MBTL)

To Whom It May Concern:

Thank you for the opportunity to comment on the proposed Millennium Bulk Terminals Longview (MBTL) project. This is the second of two formal comment letters Oregon Physicians for Social Responsibility (Oregon PSR) will submit during the scoping process.

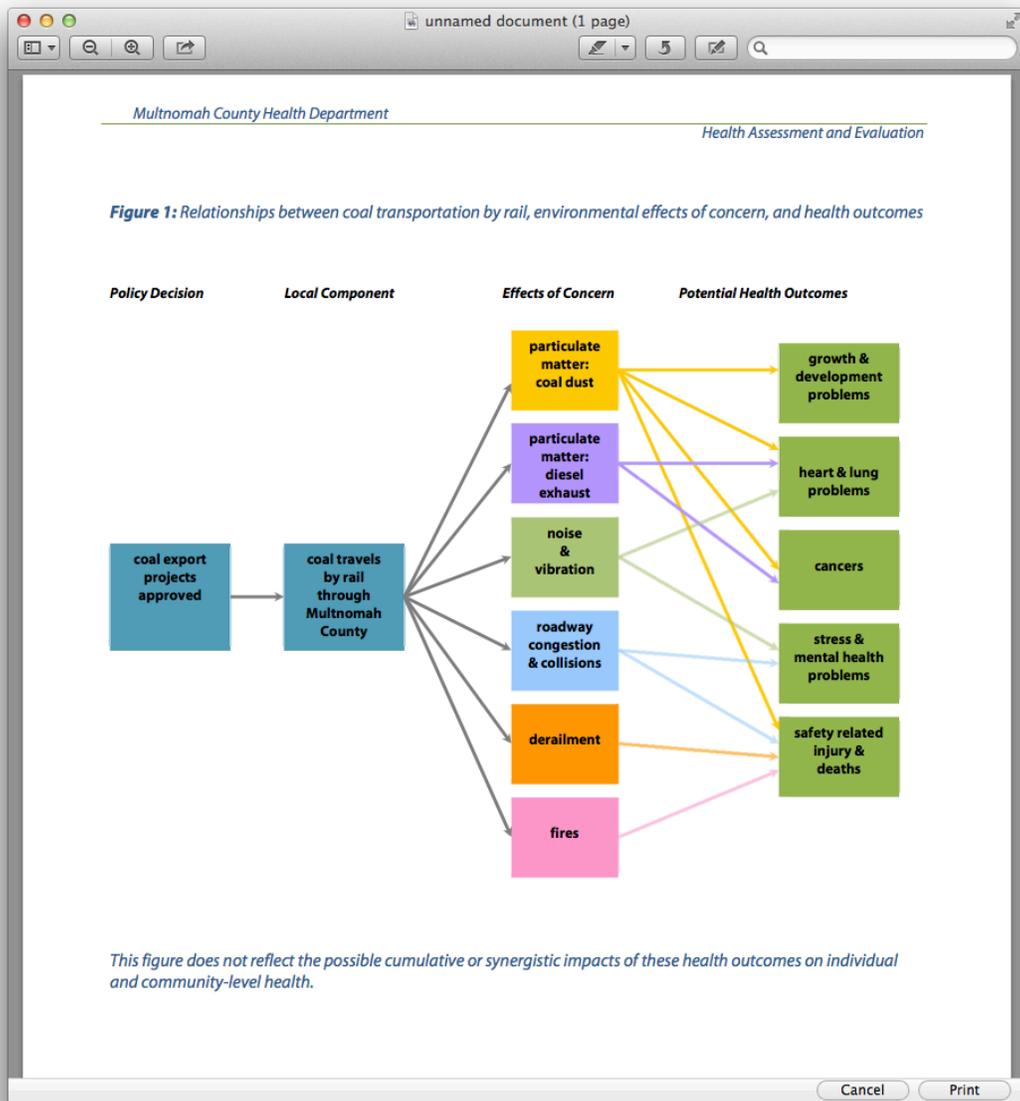
Oregon Physicians for Social Responsibility, guided by the values and expertise of medicine and public health, works to protect human life from the gravest threats to health and survival by striving to end the nuclear threat, advance environmental health and promote peace.

We are opposed to the MBTL project and believe that, if co-leads are not prepared to deny the application, it is your legal and moral responsibility to perform a programmatic, regional Environmental Impact Statement (EIS) with a comprehensive Health Impact that examines all cumulative impacts – both direct and indirect – of coal exports.

The image below, which only describes only the relationship of transportation of coal (not the mining or combustion of same) to policy decisions and health outcomes is an example of complex relationships which must be examined.

The communities of Portland, Beaverton, Milwaukie, Eugene have passed resolutions that call for a regional EIS and a comprehensive HIA.

Coal is the most toxic fossil fuel on this planet. It has been described by Alan Lockwood, MD, as one of the 10 top killers in the United States.



Add ME

We also request that the Washington Department of Health and other entities with experience and research on the distribution of and impacts of mercury deposition be engaged in this effort, as well as the various health departments in every state that will be affected by the rail and ship transport of coal.

Drinking Water

The community of Longview, WA commenced drinking ground water in January, 2013. Their water source is located near the proposed coal export facility, where coal will be exposed and stored outside.

What is the geologic relationship between the drinking water aquifer and the storage site.

What is the risk to drinking water from diesel fuel release and spills at the port?

What is the relationship between surface water that will be impacted by the facility? Does the Columbia River communicate with ground water supplies that are the source of drinking water?

What is the potential damage to drinking water sources all along the transportation route? For example, Lake is the drinking water source for C. Please identify potential impacts to drinking water with the introduction of an additional 8 or 16 trains per day traveling beside and over the lake en route to Longview.

Benzene

Noise

Please examine the relationship between coal train noise and hearing loss.

Climate Change

Many physicians, health professionals and public health advocates believe that climate change is a public health emergency and the largest threat to human health in this century. The burning of coal handled by these proposed NW export facilities alone could generate more than 200 million metric tons of carbon pollution each year.

Organizations calling for prompt reduction in carbon dioxide pollution include the American Medical Association, American Nurses Association, American Academy of Pediatrics, American Public Health Association, American Academy of Family Practitioners, American Thoracic Society, American Lung Association, National Academy of Sciences, US Centers for Disease Control and Prevention, American Lung Association, World Health Organization, and Physicians for Social Responsibility.

The burning of coal handled by proposed NW export facilities alone could generate more than 200 million metric tons of carbon pollution each year.

Approval of this project would exacerbate climate chaos with more extreme weather events and significant changes in the hydrological cycle. Those changes can lead to grave health impacts ranging from disease and dislocation, loss of access to medication, and an increased incidence of disease, to starvation and even war.

Please identify the potential health impacts of climate change. How will those impacts distributed? Who will bear the cost? Who will pay with their health, safety and well-being

What are the health impacts of climate change?
How are those impacts distributed?
Which populations are most vulnerable?

Incorporate into HIA HIA/Values described in

Example of ----- Mult Cty. Underscores the complexity of the picture

Please note that Department of Health invokes the Precautionary Principle and recommends that elected officials support the call for a programmatic EIS.

Alan Lockwood, MD on his book, The Silent Epidemic: Coal and the Hidden Threat to Health

“We will not find ‘exposure to burning coal’ listed as the cause of death on a single death certificate, but tens of thousands of deaths from asthma, chronic obstructive pulmonary disease, lung cancer, heart attacks, strokes, and other illnesses are clearly linked to coal-derived pollution.

Please review and consider in a HIA new information provided by the World Health Organization http://www.iarc.fr/en/media-centre/pr/2013/pdfs/pr221_E.pdf and the related article in The Lancet

The Lancet Oncology, Early Online Publication, 24 October 2013
doi:10.1016/S1470-2045(13)70487-X

The carcinogenicity of outdoor air pollution

[Dana Loomis](#)^a, [Yann Grosse](#)^a, [Béatrice Lauby-Secretan](#)^a, [Fatiha El Ghissassi](#)^a, [Véronique Bouvard](#)^a, [Lamia Benbrahim-Tallaa](#)^a, [Neela Guha](#)^a, [Robert Baan](#)^a, [Heidi Mattock](#)^a, [Kurt Straif](#)^a, on behalf of the International Agency for Research on Cancer Monograph Working Group IARC, Lyon, France

In October, 2013, 24 experts from 11 countries met at the International Agency for Research on Cancer (IARC), Lyon, France, to assess the carcinogenicity of outdoor air pollution. This assessment was the last in a series that began with specific combustion products and sources of air pollution and concluded with the complex mixture that contains all of them. The results of this most recent assessment will be published as volume 109 of the IARC Monographs.¹

Outdoor air pollution is a mixture of multiple pollutants originating from a myriad of natural and anthropogenic sources. Transport, power generation, industrial activity, biomass burning, and domestic heating and cooking are the predominant anthropogenic sources in many locations.² The mix of pollutants in outdoor air varies substantially over space and time, showing not only the diversity of sources, but the effect of atmospheric processes, including oxidation and weather. Diverse approaches are used to measure

air pollution and some countries have established monitoring networks that typically record levels of regulated pollutants, such as respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), NO₂, SO₂, and O₃. PM_{2.5} is increasingly used as an indicator pollutant, with annual average concentrations ranging from less than 10 to more than 100 µg/m³ globally. Pollution levels in western Europe and North America have generally declined since the late 20th century, but they are increasing in some rapidly industrialising countries, notably in Asia. In many areas, WHO and national air quality guidelines for PM_{2.5} and other pollutants are routinely and substantially exceeded.³ Occupational exposures to outdoor air pollution, although not routinely monitored, are also of concern for certain groups of workers, such as traffic police, drivers, and street vendors.

The IARC Working Group unanimously classified outdoor air pollution and particulate matter from outdoor air pollution as carcinogenic to humans (IARC Group 1), based on sufficient evidence of carcinogenicity in humans and experimental animals and strong mechanistic evidence.

The findings regarding the carcinogenicity of outdoor air pollution as a mixture, and of particulate matter specifically, are remarkably consistent in epidemiological research, studies of cancer in experimental animals, and a wide range of studies of mechanisms related to cancer. Particularly, an increased risk of lung cancer was consistently observed in cohort and case-control studies including millions of people and many thousands of lung cancer cases from Europe, North America, and Asia. The largest and most informative studies were a pooled analysis of data from ten European countries and a large nationwide cohort study in the USA.^{4, 5} Many studies estimated quantitative levels of outdoor air pollutants, most often as mass concentration of particulate matter, and adjusted for a wide range of potential confounders including tobacco smoking. Increased risk associated with outdoor air pollution was also seen in studies restricted to never smokers.⁶ Positive exposure-response relations were consistently observed in studies that provided such data. Notably, virtually all of the studies were done in areas where annual average levels of PM_{2.5} range from about 10 to 30 µg/m³, which represents approximately the lower third of exposures worldwide. Nevertheless, increased risk of lung cancer was observed even in those areas where PM_{2.5} concentrations are less than the current health-based guidelines.⁴

There was limited epidemiological evidence for bladder cancer associated with various metrics of exposure to outdoor air pollution, including occupational and residential exposure to traffic or traffic emissions, in

studies that were adjusted for tobacco smoking. However, most studies assessed exposure only by employment in occupations with potentially high exposure to outdoor air pollution, so the results did not weigh heavily in the evaluation.

The Working Group also reviewed evidence regarding the carcinogenicity of outdoor air pollution in experimental animals. As part of this process, the IARC's earlier evaluations of diesel engine exhaust and of emissions from the combustion of coal and wood were updated and confirmed. All of these agents can be present in outdoor air and were shown previously to cause benign and malignant lung tumours in mice or rats.

Only a few studies have assessed the occurrence of cancer in animals exposed directly to outdoor air pollution by inhalation. Studies of mice exposed to traffic-related outdoor air pollution in São Paulo, Brazil, showed an increase in the incidence of lung adenoma, and an increase in the incidence and tumour multiplicity of urethane-induced adenomas in a dose-dependent manner.⁷ Several studies in which mice were injected subcutaneously with organic solvent-extracted material from particles collected from outdoor air pollution, showed increased incidence of injection-site tumours, including fibrosarcomas, and pulmonary adenoma or adenocarcinoma.^{8, 9}

The findings of carcinogenicity in humans and animals are strongly supported by a large, diverse body of evidence showing genetic and related effects in exposed humans and animals and a wide range of experimental systems. Studies of people exposed occupationally to outdoor air pollution have shown enhanced frequencies, relative to controls, of chromosome aberrations and micronuclei in lymphocytes.^{10, 11} Exposure to polluted outdoor air in occupational settings or urban and industrial areas is also associated with changes in the expression of genes involved in DNA damage and repair, inflammation, immune and oxidative stress response, as well as altered telomere length and epigenetic effects such as DNA methylation.¹¹ An increase of cytogenetic and DNA damage related to outdoor air pollution was associated with genetic polymorphisms, such as *GSTM1* null. Genetic damage, including somatic and germ-cell mutations, cytogenetic abnormalities, and DNA damage were also observed in mammals, birds, and plants exposed to outdoor air pollution.¹² Genotoxic effects have also been observed in studies of human and animal cell lines in vitro.

Additionally, extracts of particulate matter from outdoor air representing a wide range of locations, time periods, and atmospheric conditions induce

mutations in bacteria. This mutagenic activity, covering more than five orders of magnitude per volume of air across locations, is quantitatively related to the concentration of atmospheric particulate matter. Thus, the Working Group concluded that there is strong evidence that real-world exposures to outdoor air pollution, in several species, are associated with increases in genetic damage, including cytogenetic abnormalities, mutations in both somatic and germ cells, and altered gene expression, which have been linked to increased cancer risk in humans.

DPM

Susan Katz, MD

"There is ample evidence to connect other components of DPM with adverse health effects in children and in reproductive aged women, including asthma and behavioral problems in children and reproductive problems and premature births in young women."

PSR

Physicians for Social Responsibility found in 2009 that coal pollutants affect all major body organ systems and contribute to four of the five leading causes of mortality in the U.S.: heart disease, cancer, stroke, and lower respiratory disease.

Independent HIA team

QOL

Environmental Justice

We request that you incorporate by reference the attached documents:

1) "Potential Health Impacts of Millennium Bulk Terminals Longview (MBTL) / Physicians Request a Comprehensive Health Impact Assessment (HIA) Be Included in the EIS. "

Please note that this comment is supported by 158 Oregon and Washington physicians who voice concerns, and not opposition to, MBTL in the context of this document.

2) "Washington Health Community Position Statement on Proposed Coal Exports"

Please note that this comment is supported by 54 concerned SW Washington health professionals.

2) Statement of The Yakama Nation (November 18, 2013)

Please note the opposition of The Yakama Nation to this project.

Comment of The Yakama Nation (November 18, 2013)

Statement of The Cowlitz

Comments of Dr. Lee Ann Gekas to co-lead agencies (September 1, 2013)

) Comments of Maye Thompson, RN, PhD to all co-leads (September 17, 2013)

) Comments of Dr. Theodora Tsongas (October 9 and

Comments of Margie Kircher.)(October 9, 2013)

Comments of Diane Winn, RN (October 9)

) Comments of Dr. Andrea Voss-Andraes Oct 9 2013

Comments of Dr. Patrick O'Herron Oct 9 2013

Comments of Dr. Martha Neuringer Oct 9 2013

Comments of Dr. Andy Harris (November 18, 2013)

Comments of City of Milwaukie, Oregon (November 18, 2013)

Comments of the City of Mosier, Oregon (November 18, 2013)

Comments of the Mayor Kitty Piercy of Eugene, Oregon (November, 2013)

Portland City Council Resolutions

Please note the request for

Resolution of the City Council of the City of Beaverton

Please note the request for an HIA

Resolution of the Metro Regional Government

Please note the request for study of impacts to public health

Comments of The Mazamas (November 18, 2013)

Please note the request for an HIA with a public scoping process.

Comments of Earthjustice submitted on behalf of Oregon Physicians for Social Responsibility and others. (November 16, 2013)

Many health professionals believe that climate change is a public health emergency and the largest threat to human health in this century. The burning of coal handled by these proposed NW export facilities alone could generate more than 200 million metric tons of carbon pollution each year.

Organizations calling for prompt reduction in carbon dioxide pollution include the American Medical Association, American Nurses Association, American Academy of Pediatrics, American Public Health Association, American Academy of Family Practitioners, American Thoracic Society, American Lung Association, National Academy of Sciences, US Centers for Disease Control and Prevention, American Lung Association, World Health Organization, and Physicians for Social Responsibility.

Climate change is the challenge of our time. So-called climate chaos will ensue with more extreme weather events. Those events will lead to grave health impacts that range from disease and dislocation to starvation and war. What are the health impacts of climate change? How are those impacts distributed? Who bears the cost? Who will pay with their health, safety and well-being

It is your responsibility to perform a programmatic reg EIA with a comprehensive Health Impact that examines the cumulative impacts – both direct and indirect – of coal exports. The image below, which only describes the relationship of transportation of coal between policy decisions and health outcomes is an example of the complex relationships which must be examined.