

**Position Statement on Coal Exports from
Concerned Oregon Physicians to Governor Kitzhaber
August 27, 2012**

Multinational coal companies propose to send coal mined in the Powder River Basin by rail and barge through the Pacific Northwest to be loaded onto large ships and exported to Asia. If current proposals are approved, that could result in more than 150 million tons of coal shipped each year. An average of 26 loaded coal trains, each one-mile long (or longer) with over 100 cars propelled by four diesel engines, could pass through Oregon and/or Washington every day. This will result in the release of significant amounts of airborne pollutants and related disease from diesel engines and coal dust. The increased train traffic will also cause significant delays at many rail crossings, increased risk of vehicle and pedestrian injuries along the tracks, and increased noise pollution. As a group of Oregon physicians, we are deeply concerned about the health and safety impacts these proposals.

A group of Washington physicians has carefully reviewed data published in peer-reviewed medical journals which show that:

Diesel particulate matter is associated with: (See *Appendix A*, *Appendix C*)

- impaired pulmonary development in adolescents;
- increased cardiopulmonary mortality and all-cause mortality;
- measurable pulmonary inflammation;
- increased severity and frequency of asthma attacks, ER visits, and hospital admissions in children;
- increased rates of myocardial infarction (heart attack) in adults; and
- increased risk of ischemic stroke.

Coal dust is associated with: (See *Appendix B*)

- chronic bronchitis;
- emphysema;
- pulmonary fibrosis (pneumoconiosis); and
- environmental contamination through the leaching of toxic heavy metals.

Noise exposure causes: (See *Appendix D*)

- cardiovascular disease, including increased blood pressure, arrhythmia,
- stroke, and ischemic heart disease;
- cognitive impairment in children;
- sleep disturbance and resultant fatigue, hypertension, arrhythmia, and increased rate of accidents and injuries; and
- exacerbation of mental health disorders such as depression, stress and anxiety, and psychosis.

Frequent long trains at rail crossings will mean: (See *Appendix E*)

- delayed emergency medical service response times; and
- increased accidents, traumatic injury and death.

More recent research published in major medical journals augments prior

concerns including, but not limited to: (See *Appendix F*)

- increased risk of lung cancer.

Additionally, several recent studies have shown that powerful spring trade winds can carry Asian pollution into the atmosphere above North America. Some of the imported pollution descends to the surface, where it affects ground-level concentrations of ozone, mercury, sulfur compounds and soot. Ground-level ozone can cause severe respiratory problems, including asthma, in susceptible individuals.

A 2008 study (see *Appendix G*) found that Asian emissions of mercury contribute 18% of springtime mercury concentrations at Mount Bachelor. Snowpack runoff ends up in our rivers and lakes where the mercury contaminates the fish we eat. Pregnant women and children are particularly vulnerable to the toxic effects of mercury. Mercury is a potent neurotoxin that can damage developing brains in fetuses and children.

The effects of air pollution are not hypothetical, but real and measurable. Many of the reviewed studies show significant health effects of exposure to everyday airborne pollutant levels that are below national U.S. Environment Protection Agency (EPA) guidelines. The data show a linear effect with no specific “safe threshold.”

The conclusion that airborne pollutants pose a significant and measurable health risk was also reached by the American Lung Association, in their review, “State of the Air 2011,” and by the American Heart Association, in their 2011 review, “Particulate Matter Air Pollution and Cardiovascular Disease.”

As physicians, we believe the risks to human health from massive coal shipments across our state, down the Columbia River, and through our communities are significant. We are particularly concerned with the health of our most vulnerable populations: prenatal, early childhood, the elderly and those with pre-existing conditions. We must identify likely exposures for affected workers and individuals all along the line, from the mines to the trains, to the barges, and to the ports of the Northwest. We want to prevent new sources of morbidity and mortality. We seek your help in doing so.

Specifically, we request that you call for and examine both a comprehensive Health Impact Assessment (to include cumulative effects) and a programmatic Environmental Impact Statement before any coal export facility, infrastructure or related transport is approved by any Oregon state agency.

With respect,

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Key References:

American Heart Association statement

American Lung Association statement

Puget Sound Clear Air Agency document

Appendices:

Download Appendix A: Pulmonary Impacts of Airborne Pollutants (including diesel particulate matter) (PDF, 152 KB)

Download Appendix B: Health Impacts of Coal Dust (PDF, 94 KB)

Download Appendix C: Cardiovascular Impacts of Airborne Pollutants (including particulate matter) (PDF, 86 KB)

Download Appendix D: Health Impacts of Noise Pollution (PDF, 94 KB)
*Download Appendix E: Anticipated Impacts of Frequent Long Trains on
Emergency Medical Service Response Times and Risk of Injuries at Crossings
(PDF, 82 KB)*
*Download Appendix F: March 12, 2012 Letter from Whatcom, Skagit and King
County Physicians (PDF, 304 KB)*
Download Appendix G: “Trans-Pacific Transport of Mercury” (PDF)