Sightline INSTITUTE

206 447 1880
1402 Third Avenue, Suite 500
Seattle, WA 98101
www.sightline.org

January 8, 2012

Proposed Gateway Pacific Terminal/Custer Spur EIS
c/o CH2M HILL
1100 112th Ave NE, Suite 400
Bellevue, WA 98004
comments@eisgatewaypacificwa.gov

Randel Perry, Project Manager
USACE, Seattle District
1440 10th Street, Suite 102
Bellingham, WA 98225-7028

Tyler Schroeder, Planning Supervisor
Whatcome County, Planning & Development Services
5280 Northwest Drive
Bellingham, WA 98226

Alice Kelly, Planner
Washington Department of Ecology, NWRO
3190 160th Ave SE
Bellevue, WA 98008-5452

Re: Comments on proposed Gateway Pacific Terminal EIS scoping

Dear CH2M Hill, Mr. Perry, Mr. Schroeder, and Ms. Kelly,

Please consider this letter as part of the public record for the Gateway Pacific Terminal coal export project proposed at Cherry Point, Whatcom County, Washington, facility site ID #22237. With this letter, written on behalf of Sightline Institute, I respectfully request that the lead agencies carefully evaluate and respond to the following questions.

Can a large coal handling facility control the spread of coal dust?

The proposed Gateway Pacific Terminal will store coal in large piles and there is ample evidence that coal stockpiles can feed prolific quantities of dust to the wind, especially when terminal machinery are loading and unloading the fuel. As one study put it, "coal terminals by their nature are active sources of fugitive dust."[1] Unsurprisingly, coal dust problems plague export facilities in North America and around the world.

[1] Douglas L. Cope and Kamal K. Bhattacharyya, A Study of Fugitive Coal Dust Emissions in Canada, "Chapter 8: Coal Terminals: Fugitive Dust Emissions and Control," prepared for The Canadian Council of Ministers of the Environment, November 2001.

In Seward, Alaska, for example, residents have sued the local terminal operators because coal dust blowing off the terminal's stockpiles regularly coats nearby fishing boats and neighborhoods with debris. The residents' suit states that the conveyor system used to load ships drops coal dust into Seward's scenic harbor, violating the Clean Water Act.[2] In 2010, the state of Alaska fined the railroad company that delivers coal to the terminal $220,000 for failing to adequately control dust.[3]

British Columbia's Westshore coal terminal, which shipped about 27 million metric tons in 2011, sits on a peninsula jutting into the Strait of Georgia. Some residents of Point Roberts, a beachfront community three miles away, complain that coal dust blackens their homes, patio furniture, and boats moored in the local marina.[4] A comprehensive 2001 study of coal dust emissions in Canada found that the Westshore Terminal emits roughly 715 metric tons of coal dust a year. A separate study recently conducted by researchers at the University of British Columbia found that the concentrations of coal dust in the vicinity of the terminal had doubled during the period from 1977 to 1999.[5] Despite measures to control the spread of dust, photographs published in the news media shows that coal dust continues to be a problem at both Westshore and Ridley Terminals in northern British Columbia.[6]

The Lamberts Point Coal Terminal in Norfolk, Virginia, which ships 28 million tons of coal annually, is legally permitted to release up to 50 tons of coal dust into the air each year. Black grit from the coal piles commonly coats cars, windowsills, and plants in neighboring communities. Neighbors worry that the dust is responsible for the vicinity's elevated asthma rates.[7] In Newport News, Virginia; Charleston, South Carolina; and on the Mississippi River, coal dust routinely blankets neighborhoods and local waterways.[8] And coal dust is widespread near terminals in Australia, India, and South Africa.[9]

Project developers are promising to install mitigation devices that they say will control dust, yet it's highly unlikely that the coal dust can be contained entirely. Huge piles of coal will stand outdoors in wind and weather, and frequently be shoveled into new positions by stacker reclaimers and other machinery. In fact, the project developers have not identified any large coal handling facility anywhere in the world that has adequately contained coal dust.

---

[2] Andrew Jensen, "Judge Allows Lawsuit: Seward Coal Facility Faces Clean Water Act Suit," Alaska Journal of Commerce, January 24, 2011, http://www.peninsulaclarion.com/stories/012411/new_775559217.shtml.

[3] Mary Pemberton, "Alaska Railroad Takes Steps to Reduce Coal Dust," Ventura County Star, July 9, 2010, http://www.vcstar.com/news/2010/jul/09/alaska-railroad-take-steps-to-reduce-coal-dust.

[4] Erik Olson, "Westshore provides glimpse of Longview's potential future with coal," Daily News, February 12, 2011, http://tdn.com/news/local/article_35ad9c0c-3634-11e0-8eea-001cc4c03286.html.

[5] Douglas L. Cope and Kamal K. Bhattacharyya, A Study of Fugitive Coal Dust Emissions in Canada, "Chapter 8: Coal Terminals: Fugitive Dust Emissions and Control," prepared for The Canadian Council of Ministers of the Environment, November 2001; and Ryan Johnson and R. M. Bustin, "Coal dust dispersal around a marine coal terminal (1977–1999), British Columbia: The fate of coal dust in the marine environment," International Journal of Coal Geology, Volume 68, Issues 1-2, 1 August 2006, Pages 57-69, http://www.sciencedirect.com/science/article/pii/S0166516206000206.

[6] Shaun Thomas, "Port Edward raises concerns after large coal cloud spotted over Ridley Terminals," The Northern View, June 16, 2011, http://www.thenorthernview.com/news/124013379.html; and The Delta Optimist, "Unexpected wind gust stirs up coal dust at Roberts Bank," The Vancouver Sun, April 13, 2012, http://www.vancouversun.com/Unexpected+wind+gust+stirs+coal+dust+Roberts+Bank/6455530/story.html.

[7] William J. Bounds and Karen H. Johannesson, "Arsenic Addition to Soils from Airborne Coal Dust Originating at a Major Coal Shipping Terminal," Water, Air, & Soil Pollution, June 21, 2007, 185: 195-207, http://www.springerlink.com/content/98146r1160021h13/; and Joe Lawlor, "Coal Dust, Piles an Issue for Southeast Newport News," July 16, 2011, http://articles.dailypress.com/2011-07-16/news/dp-nws-cp-nn-coal-dust-20110716_1_coal-dust-coal-piles-coal-terminals.

[8] Eric de Place, "The Facts About Kinder Morgan," Sightline Daily blog, April 5, 2012, http://daily.sightline.org/2012/04/05/thefacts-about-kinder-morgan/.

[9] Eric de Place, "Australia's Coal Dust Problem," Sightline Daily blog, February 7, 2012, http://daily.sightline.org/2012/02/07/australias-coal-dust-problem/; Eric de Place, "Coal Dust in India," Sightline Daily blog, February 15, 2012, http://daily.sightline.org/2012/02/15/coal-dust-in-india/; and Eric de Place, "Coal Dust in South Africa," Sightline Daily blog, May 1, 2012, http://daily.sightline.org/2012/05/01/coal-dust-in-south-africa/.

Does rail transport release coal dust or create other coal-related hazards?

Coal dust escapes from the open-top rail cars used for transporting coal and can create safety and congestion problems for rail traffic. In 2005, for example, coal dust that had accumulated in ballast, the layer of crushed rock that supports rail tracks, caused derailments. Coal dust deposits sometimes even cause spontaneous fires.

The Burlington Northern Santa Fe Railway (BNSF) has studied the problem and found that as much as a ton of coal can escape from a single loaded coal car, while other reports show that as much as 3 percent of a coal car's load, which is typically 100 tons or more, can blow away in transit.[10] The US Department of Transportation classifies coal dust as a "pernicious ballast foulant" that can weaken and destabilize rail tracks.[11] It is not clear how much coal dust might escape in the Pacific Northwest, but one watchdog group has verified that coal and coal dust does escape from open rail cars traveling along Puget Sound coastlines.[12]

To reduce or prevent coal dust from escaping, shippers can fill cars less full, cover them, or deploy chemical sprays, but these measures run up the cost of moving coal, so coal shippers rarely employ them by choice.[13] A March 2011 ruling from the US Surface Transportation Board, which oversees railway operations, allowed BNSF to require coal shippers to control dust, but there is little reason to believe the controls will be effective.[14] In fact, shippers are already appealing the decision, blaming BNSF's operating procedures for the spread of coal dust and arguing that the railway's dust reduction goals are unrealistic and based on "junk science."[15]

Complicating matters for the Northwest, Powder River Basin (PRB) coal is notoriously difficult to handle. One technical analysis finds that, "PRB coal is extremely friable and will break down into smaller particles virtually independent of how the coal is transported or handled." According to the study's authors, "PRB represents the extremes of handling problems."[16]

The same analysis found that:

> Spontaneous combustion of coal is a well-known phenomenon, especially with PRB coal. This high-moisture, highly volatile sub-bituminous coal will not only smolder and catch fire while in storage piles at power plants and coal terminals, but has been known to be delivered to a power plant with the rail car or barge partially on fire…[17]

---

[10] Eric de Place, "At Least the Website is Clean," Sightline Institute blog, August 10, 2011, http://daily.sightline.org/2011/08/10/at-least-the-website-is-clean/.
[11] "Surface Transportation Board Authorizes Tariff Rules on Coal Dust but Strikes Down Specific BNSF Tariff," Troutman Sanders LLP, Washington Energy Report, http://www.troutmansandersenergyreport.com/2011/03/surface-transportation-board-authorizestariff-rules-on-coal-dust-but-strikes-down-specific-bnsf-tariff.
[12] Gary Chittim, "Traces of coal found along Washington railways," King 5 News, August 16, 2011, http://www.king5.com/news/environment/Coal-Found-Along-Washington-Railways-127907523.html.
[13] Josh Voorhees, "Railroads, Utilities Clash Over Dust From Coal Trains," New York Times, January 25, 2010, http://www.nytimes.com/gwire/2010/01/25/25greenwire-railroads-utilities-clash-over-dust-from-coal-55265.html; and Joe Deaux, "Regulations Could Derail Railroad Profits," The Street, August 21, 2011, http://www.thestreet.com/story/11215990/1/regulations-could-derail-railroad-profits.html.
[14] Surface Transportation Board, "Decision, Docket No. FD 35305, Arkansas Electric Cooperative Corporation: Petition for Declaratory Order," March 3, 2011, http://www.troutmansandersenergyreport.com/wp-content/ uploads/2011/03/Coal-Dust.pdf.
[15] Steven Johnson, "Shippers Challenge Railroad Coal Fee," Electric Co-op Today, October 17, 2012, http://www.ect.coop/regulatory-watch/transportation-regulation/shippers-challenge-railroad-coal-fee/49155.
[16] Roderick J. Hossfeld and Rod Hatt, "PRB Coal Degradation: Causes and Cures," PRB Coal Users Group, http://www.prbcoals.com/pdf/paper_archives/56538.pdf.
[17] Roderick J. Hossfeld and Rod Hatt, "PRB Coal Degradation: Causes and Cures," PRB Coal Users Group, http://www.prbcoals.com/pdf/paper_archives/56538.pdf.

Outside of confined environments, Powder River Basin coal does not spontaneously explode or burst into full flame, but under the wrong conditions it can self-ignite and burn slowly even while it is riding the rails—a troubling proposition for railroad workers and communities along the tracks.

Is non-occupational coal dust exposure harmful to people?

Coal dust degrades water quality and may pose a danger to residents' health. Coal workers who are exposed to dust, for example, suffer elevated rates of bronchitis, emphysema, and black lung disease.[18] In Liverpool, England, researchers found that, even after correcting for economic and environmental factors at home, children exposed to coal dust from the nearby docks were more likely to miss school because of respiratory problems, including wheezing and coughing.[19]

In Norfolk, Virginia, home of the Lamberts Point Coal Terminal, soil samples contain up to 20 percent coal by weight at a site less than 1 kilometer from the docks, 3 percent coal at a site 5 kilometers away, and 1 percent coal as far as 12 kilometers away. High coal levels in soil along railroad tracks suggest that trains are another pathway for contamination. Researchers in Norfolk also found arsenic levels were five times higher than background soil concentrations nearby, and hypothesize that the coal export terminal is at least partially responsible for the difference because coal often contains arsenic.[20]

Is coal dust harmful to fish and wildlife?

Several scientific studies raise serious questions about the impact of coal dust on key species such as salmon. Coal dust exposure has been shown to alter gene expression in juvenile salmon, a process that could result in cell mutations which could have profound physiological consequences.[21] There is also evidence that coal byproducts and pollutants in coal dust reduce the growth rate of trout.[22] Moreover, these same substances have been shown to promote hepatocellular carcinoma in fish.[23]

There are related concerns about the prospect of pollution from coal-handling practices. One study found that additives, such as surfactants, in the water sprayed on stockpiles can increase the mobility of pollutants in the aquatic environment.[24] Moreover, coal pollution can be extremely long-lived. In fact, the majority of alkyl PAHs in water near deep marine outfalls off South Vancouver Island are not from the nearby sewage outfalls but rather from a 1891 ship that went down carrying collier waste.[25]

---

[18] US Occupational Safety and Health Administration, "Occupational Safety and Health Guideline for Coal Dust," http://www.osha.gov/SLTC/healthguidelines/coaldust-greater5percentsio2/recognition.html.

[19] Liverpool from Bernard Brabin et al., "Respiratory morbidity in Merseyside schoolchildren exposed to coal dust and air pollution," Archives of Disease in Childhood, 1994; 70: 3015-312, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1029784/pdf/archdisch00564-0049.pdf .

[20] William J. Bounds and Karen H. Johannesson, "Arsenic Addition to Soils from Airborne Coal Dust Originating at a Major Coal Shipping Terminal," Water, Air, & Soil Pollution, June 21, 2007, 185: 195-207, http://www.springerlink.com/content/98146r1160021h13/ .

[21] Campbell P.M.; Devlin R.H., "Increased CYP1A1 and ribosomal protein L5 gene expression in a teleost: The response of juvenile chinook salmon to coal dust exposure," Aquatic Toxicology, Volume 38, Number 1, May 1997 , pp. 1-15(15), http://www.ingentaconnect.com/content/els/0166445x/1997/00000038/00000001/art00848.

[22] Herbert, D.W.; Richards, J.M., "The growth and survival of fish in some suspensions of solids of industrial origin," International Journal of Air and Water Pollution, June 1963;7:297-302, http://www.ncbi.nlm.nih.gov/pubmed/13953887.

[23] Jerry D. Hendricks et al., "Hepatocarcinogenicity of Benzo[*a*]pyrene to Rainbow Trout by Dietary Exposure and Intraperitoneal Injection," Oxford Journals, Journal of the National Cancer Institute, Volume 74, Issue 4, pp. 839-851, http://jnci.oxfordjournals.org/content/74/4/839.abstract.

[24] J.D. Enzminger & R.C Ahlert, "Environmental fate of polynuclear aromatic hydrocarbons in coal tar," Environmental Technology Letters, Volume 8, Issue 1-12, 1987, pages 269-278, http://www.tandfonline.com/doi/abs/10.1080/09593338709384486.

[25] Mark B. Yunker, Avrael Perreault, Christopher J. Lowe, "Source apportionment of elevated PAH concentrations in sediments near deep marine outfalls in Esquimalt and Victoria, BC, Canada: Is coal from an 1891 shipwreck the source?" Organic Geochemistry, Volume 46, May 2012, Pages *12-37,* http://www.sciencedirect.com/science/article/pii/S0146638012000071.

Does coal transport create other health risks?

The proposed coal exports would add a large number of trains to the Northwest's rail lines. The proposed Gateway Pacific project would add 18 trains per day to the region's rail network. Coal trains tend to be long – sometimes as much as a mile and a half in length – and are believed by many to be louder and produce more vibrations than other trains, owing to their weight.

A group of 160 doctors and other health professionals in Whatcom County, Washington, published a position statement documenting a number of health-related problems with coal exports. In addition to the risks of coal dust, the doctors raise concerns about the impacts of the trains themselves, which generate noise, create collision hazards, and delay emergency medical response by impeding rail crossings. Trains are also responsible for hazardous air pollution from diesel engines, a documented threat to health in Washington.[26]

The BNSF rail yards in Spokane—an important linkage point between the Powder River Basin and Washington's Pacific ports—would see increased rail traffic that is almost certain to increase harmful pollution there. A 2010 study by the Spokane Clean Air Agency identified lung cancer risks in Spokane that appear closely related to residents' proximity to the BNSF railyard, where diesel engines generate prodigious quantities of small particulate pollution, the most health-threatening major air pollutant in the Northwest. Researchers ruled out numerous alternative explanations and concluded that "the BNSF railyard appears to be the only other air pollution source in the vicinity of Hillyard that can account for its differential lung cancer risk."[27]

To what degree would coal transport worsen traffic congestion and impair freight mobility?

For many communities, coal trains are certain to worsen traffic congestion and impair truck freight. The sheer number of trains required by a full build-out of the coal terminals would dictate that even if trains traveled at 35 miles per hour they would obstruct at-grade crossings for 10 percent of every day. In urban locations, where train speeds are slower, the problem is likely to be even worse.[28] In fact, a detailed traffic study by Parametrix found that coal trains would close heavily used streets in downtown Seattle by 1 to 3 hours every day.[29]

A series of traffic analyses conducted by Gibson Traffic Consultants found that coal train traffic will result in serious congestion and delay in many Northwest cities.[30] In Marysville, Washington, for example, a single coal train passing through would delay traffic on the city's central arterials by the equivalent of three to four continuous red light cycles and Gibson points to a potential "nightmare scenario" where all of the city's access points to Interstate 5 are obstructed simultaneously.[31]

Coal trains may also create congestion problems on the Northwest's railroads. Key areas of the region's railway system already operate beyond their capacity, resulting in congestion and delay for freight and passenger trains alike. Rail system experts working for the Western Organization of

---

[26] "Whatcom Docs Position Statement and Appendices," Coal Train Facts, http://www.coaltrainfacts.org/whatcom-docs-position-statement-and-appendices.
[27] Charles E. Studer, "Health Risk Study for the Burlington Northern / Santa Fe Railroad Spokane Railyard," Spokane Regional Clean Air Agency," June 16, 2010, http://www.spokanecleanair.org/documents/Study_Reports/BNSF%20Spokane%20Railyard%20Health%20Study.pdf.
[28] Eric de Place, "Why Seattle's Freight Interests Should Worry About Coal Exports," Sightline Daily blog, June 27, 2012, http://daily.sightline.org/2012/06/27/why-seattles-freight-interests-should-worry-about-coal-exports/.
[29] Parametrix, "Coal Train Traffic Impact Study," October 2012, http://www.seattle.gov/mayor/media/PDF/121105PR-CoalTrainTrafficImpactStudy.pdf.
[30] Gibson Traffic Consultants, "Traffic Study" series, October 2012, http://www.powerpastcoal.org/library/.
[31] Edward Koltonowski, "Cherry Point Coal Export Facility Rail Operations," Gibson Traffic Consultants memo, Juen 15, 2011, http://www.powerpastcoal.org/wp-content/uploads/2012/10/traffic-study-Marysville.pdf.

Resource Councils analyzed coal export plans and determined that local governments would be saddled with hundreds of millions of dollars in expenses to mitigate the rail expansions and operations envisioned by coal export proponents.[32]

The Portland, Oregon-Vancouver, Washington area is one of the most problematic locations in part because it will be affected by coal trains no matter whether coal is shipped to Bellingham, Longview, the Port of St. Helens, or Coos Bay. In fact, the most comprehensive analysis of Washington's freight rail system—a report prepared by Cambridge Systematics for the Washington State Transportation Commission—notes that, "delay hours per train moving through the Portland/ Vancouver area are greater than the delay hours for trains in the Chicago area, one of the nation's most congested rail hubs."[33]

Northwest Washington is another critical location because the rail mainline consists of just a single track and is already subject to frequent congestion. Coal trains serving the planned coal export facility at Cherry Point would more than double the existing rail traffic in that area—even before the region sees any other freight expansions, and before the region gets new passenger rail service. In fact, even if all existing freight and passenger trains were removed from the system—and only coal trains serving Cherry Point used the main railway—the coal shipments alone would exceed the capacity of the existing system. Not surprisingly, a study of rail capacity by the Cascadia Center concludes that the proposed terminal there "has the potential to create an operational bottleneck."[34]

To what degree would burning Powder River Basin coal harm the environment?

Powder River Basin coal is lower in ash and sulfur than some other kinds of coal, but it also produces less energy per pound than the coals that are more commonly burned in modern power plants.[35] To produce the same amount of energy from Powder River Basin coal requires mining, shipping, and burning about 50 percent more.[36]

Coal is a highly impure form of fuel, and burning it releases numerous hazardous substances, including radioactive materials such as uranium and thorium. In fact, the US Department of Energy's Oak Ridge National Laboratory has estimated that coal plants have released hundreds of thousands of tons of uranium, and that radiation from coal plants is a greater threat to Americans than radiation from nuclear plants.[37]

The true costs of coal are daunting. Researchers at the Harvard Medical School recently pegged the annual cost of coal—including harm to public health, mining damage, pollution, and subsidies—at $345 billion per year in the United States alone.[38] A 2010 report from the National Research Council finds that the non-climate damages from burning coal are 20 times higher than the damages from natural gas, the next dirtiest and costliest fossil fuel in use.[39] And a 2009 report from the National

---

[32] Western Organization of Resource Councils, "Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals," July 2012, http://www.heavytrafficahead.org/ .
[33] Cambridge Systematics, "Statewide Rail Capacity and System Needs Study," December 2006; http://www.wstc.wa.gov/Rail/RailFinalReport.pdf and Eric de Place, "Coal Trains and Rail Congestion," Sightline Daily blog, September 21, 2011, http://daily.sightline.org/2011/09/21/coal-trains-and-rail-congestion/ .
[34] Eric de Place, "How Coal is Already Congesting Washington's Railways," Sightline Daily blog, October 24, 2011, http://daily.sightline.org/2011/10/24/how-coal-is-already-congesting-washingtons-railway /.
[35] Coal quality from Wyoming State Geological Survey, "Wyoming Coal Quality," http://www.wsgs.uwyo.edu/coalweb/library/science/wyquality.aspx .
[36] Union of Concerned Scientists, "How Coal Works," http://www.ucsusa.org/clean_energy/coalvswind/brief_coal.html .
[37] Alex Gabbard, "Coal Combustion: Nuclear Resource or Danger?" Oak Ridge National Laboratory Review, Summer/Fall 1993, Vol. 26, No. 3&4, http://www.ornl.gov/info/ornlreview/rev26-34/text/contents.html .
[38] Keith Bradsher and David Barboza, "Pollution from Chinese Coal Casts a Global Shadow," New York Times, June 11, 2006, http://www.nytimes.com/2006/06/11/business/worldbusiness/11chinacoal.html .

Academy of Sciences determined that US coal burning results in $60 billion per year in health costs alone.[40]

Coal is also a serious contributor to global climate change, and there is little variation in the carbon intensity of coal types on an energy-adjusted basis because the amount of energy produced is simply a very close reflection of the carbon content of the coal. More importantly, coal comes with a much heavier carbon footprint than any other fuel on the planet. For example, the subbituminous coal characteristic of the Powder River Basin produces 32 percent more greenhouse gas emissions than diesel and 82 percent more than natural gas.[41]

Will the Gateway Pacific project increase the amount of coal burned in Asia?

US coal exports would not supplant the burning of dirtier Chinese coal. Instead, North American exports would add to the volume burned in Asia. In a recent white paper, resource economist Thomas Michael Power demonstrated this point:

> This result—that international competition to serve particular import markets will lower the prices that the importing countries have to pay—should not be startling. One of the major benefits of international trade is that it allows countries access to lower cost sources of supply.[42]

In other words, Washington coal exports will not simply displace other coal in the market. Instead, American coal exports will adhere to fundamental economic principles: an increase in supply will bring down market prices and thereby increase total consumption. The extent to which increasing supply will boost demand is debatable—just like the extent to which higher prices would dampen demand—but the direction of the change is clear.

In fact, some underlying dynamics may make US exports even more critical. As Power points out, lower prices may encourage China to build more coal-burning power plants than they otherwise would, an investment that would lock in elevated coal burning and pollution for decades to come.

It is important to note that Canadian ports cannot make up for the capacity planned for the Gateway Pacific Terminal and other coal export proposals in Oregon and Washington. Despite planned capacity expansions, big increases in shipments of American coal from British Columbia are highly unlikely. Canadian steelmaking coal is in high demand, and it brings significantly higher prices than the Powder River Basin coal. Moreover, to a large extent, BC's coal ports are structured to handle primarily Canadian coal and other exports. Finally, space is limited at BC terminals. The expansions planned for BC's coal terminals do not come close to providing enough capacity for the volumes of coal called for by the five recent proposals in the Northwest. In fact, if all of the planned new capacity that is not already claimed by contract were filled by US coal (rather than by higher-value Canadian coal), and even if all three of BC's coal ports were able to operate year-round at full capacity—two highly unlikely scenarios—the terminals would have less than 13 million metric tons of extra capacity, a tiny fraction of the 140 million tons planned for Oregon and Washington.[43]

---

[39] National Research Council, "Report in Brief: The Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use," The National Academies Press, http://dels-old.nas.edu/dels/rpt_briefs/hidden_costs_of_energy_ Final.pdf .
[40] Matthew L. Wald, "Fossil Fuels' Hidden Costs is in Billions, Study Says," New York Times, October 19, 2009, http://www.nytimes.com/2009/10/20/science/earth/20fossil.html .
[41] Eric de Place, "The Myth of Low Carbon Coal," Sightline Daily blog, September 20, 2012, http://daily.sightline.org/2012/09/20/the-myth-of-low-carbon-coal/ .
[42] Thomas M. Power, "The Greenhouse Gas Impact of Exporting Coal from the West Coast: An Economic Analysis,"; and Sightline Institute, http://sightline.org/research/energy/coal/Coal-Power-White-Paper.pdf .
[43] Eric de Place and Pam MacRae, "Coal Exports From Canada," Sightline Institute, July 2012, http://www.sightline.org/research/coal-exports-from-canada/ .

The clearest evidence that West Coast coal exports are constrained by port capacity comes from the coal industry itself. Major coal firms have clearly and repeatedly indicated to their investors that they need new export facilities in Oregon and Washington if they are ever to export large quantities of Powder River Basin coal. For example, as Cloud Peak stated in a 2012 investor report, "While demand from our Asian customers remains strong, this year's exports will again be limited by available terminal capacity out of the Pacific Northwest."[44]

Will increased coal burning in Asia harm the Northwest's environment?

Sulfur compounds, soot, and other byproducts of Asian coal combustion are detectable on mountaintops in the western United States.[45] Researchers have also linked ozone in the air above the United States to pollution from developing Asian countries that are burning fossil fuels.[46] Ozone can exacerbate asthma and heart disease. Mercury, a neurotoxin that is particularly dangerous for children, is especially likely to travel across the Pacific Ocean. An Oregon researcher estimates that as much as 18 percent of the mercury in Oregon's Willamette River comes from sources overseas, increasingly from China.[47] Another study found that human-created pollution from Asia contributed to 14 percent of the mercury dropped on Mount Bachelor in central Oregon.[48]

What's more, burning large amounts of coal accelerates global climate change. Burning 140 million tons of Powder River Basin coal releases roughly 250 million tons of heat-trapping carbon-dioxide into the atmosphere, roughly equivalent to the annual emissions from 57 million cars.[49] In fact, the carbon content of the coal proposed for export would vastly exceed the carbon from the dirty oil sands fuel planned for transport in the controversial Keystone XL pipeline.[50]

Thank you for the opportunity to provide comments on this matter. Please do not hesitate to contact me if I can be of any assistance or if I can provide additional information.

Sincerely,

Eric de Place
Sightline Institute
1402 Third Avenue, Suite 500
Seattle, WA 98101
206-4471-1880 x105
eric@sightline.org

---

[44] For example, Peabody Energy, "Peabody Energy Announces Results for the Quarter Ended March 31, 2012," April 19, 2012, http://www.peabodyenergy.com/content/120/Press-Releases ; and Cloud Peak Energy, "Cloud Peak Energy Inc. Announces Results for the First Quarter of 2012," April 30, 2012, http://www.cloudpeakenergy.com/investor-relations/press-releases .
[45] Keith Bradsher and David Barboza, "Pollution from Chinese Coal Casts a Global Shadow," New York Times, June 11, 2006, http://www.nytimes.com/2006/06/11/business/worldbusiness/11chinacoal.html .
[46] O.R. Cooper et al., "Increasing springtime ozone mixing ratios in the free troposphere over North America," Nature, January 21, 2010, 463:344-348, http://www.nature.com/nature/journal/v463/n7279/pdf/nature08708.pdf .
[47] "China's mercury flushes into Oregon rivers," Oregonian, November 24, 2006, http://www.atmos.washington.edu/jaffegroup/publications/116400a.pdf .
[48] Sarah A. Strode et al., "Trans-Pacific transport of mercury," Journal of Geophysical Research, 2008, Vol. 113, D15305, http://www.atmos.washington.edu/jaffegroup/publications/Pacific_Transport_Hg.pdf .
[49] Eric de Place, "Coal Exports and Carbon Consequences," Sightline Institute blog, February 22, 2011, http://daily.sightline.org/2011/02/22/coal-exports-and-carbonconsequences / .
[50] Eric de Place, "Coal Exports Are a Bigger Threat Than Tar Sands Pipeline," Sightline Daily blog, November 16, 2011, http://daily.sightline.org/2011/11/16/coal-exports-are-bigger-threat-than-tar-sands-pipeline .