

Date: November 1, 2016

To: The Army Corps of Engineers

Re: Public Comment re Millennium Bulk Terminal: Operations and Coal Dust Generation at the Terminal

Thank you for the opportunity to submit comments.

Here is my prognosis of what will happen as regards the operations at the proposed coal terminal. First to be clear, the terminal will receive in 44 million tons of coal per year from open top rail cars and this coal will be conveyed out to a 500,000 ton surge pile waiting ocean shipment. This handling even with water suppressant will still give off dust known in the business as fugitive emissions. This dynamic will play out every day of the year. Then 44 million tons of coal will be loaded out to Panamax size vessels during the year. About 800 shiploads each carrying 55,000 tons. Adding the rail and the ship transfer operations, an average day will see 240,000 tons of coal being handled in a very dynamic process. This constant transfer, without pause, cannot fully contain dust within the terminal by the use of water as dust suppressant (a vast sprinkler system). When the coal is loaded to vessel it is difficult to contain the dust emitted as the coal is loaded into the lower holds. Each time coal is handled, from rail to pile and pile to on board the ship, fines are created from handling. It is similar to what we experience with granola. After using the box or putting it in a plastic container, there are fines remaining at the bottom as a result of constant handling. Handling operations generate more fines as the coal is dropped into the rail car at point of origin, from rail car discharge, dropped from the conveyors to the pile and from reclaim conveyor and from ship loader to the vessel. During vessel loading operations dusting will occur. This is common even with the best of technology for a ship loader and we see it in other bulk loading operations such as for grain. Because of the mega size of the planned coal terminal, the amount of dust could be very considerable. A loss of 1% for example into the air would be 440,000 tons of coal. 1% does not sound like much but the overall annual volume is excruciatingly large. I would forecast that shrinkage from fines and loss into the atmosphere to be about 0.25% or 110,000 tons annually. Imagine that over 10 years? I suppose this could be argued and I invite the argument and further study as it needs the scrutiny. I think that what people are slow to realize is that the terminal is really handling 88 million tons of coal. I know that when I mentioned this at the Army Corps hearing when I spoke to you there were some groans from the Millennium side in the audience, but this reality is not clear to them as well. For example, the CEO with Millennium is an environmental lawyer. He has never operated a terminal and or bulk loading facility of any kind nor is he familiar with vessel operations. I have and honestly I cannot fathom a terminal of this size and its consequential impacts to the environment. Even a terminal of half the volume would constitute a challenge to the environment and particularly the river. We can expect measurable dusting proportional to its size due to the overall handling in and handling out of coal in an outdoor environment.

As to the labor force that will be running the operation of unloading rail cars and loading vessels I believe Millennium has indicated that the ILWU will be employed. In a conversation I had with one of the two largest stevedore companies who would likely contract with Millennium to provide ILWU labor, those men and women will be suited up in fitted moon suit type coveralls, gloves, head cover

and respirator system with filters. In other words, the labor force will be protected or try to be protected from the dust that will be evident during daily operations. Personally, I don't see how the administrative offices can be located on site? I do believe that those present on the site will be solely dedicated to the day to day handling of coal and the maintenance of the bulk handling equipment. I would recommend that the Corps interview one of the stevedoring companies and or longshore labor as to what protective measures will be taken for their health and welfare. Even in a best case scenario, I am afraid that many of those working in the terminal will not be able to avoid some inhalation of coal dust.

Based upon experience working at the Port of Longview as a witness to many bulk handling operations, dockside and shipside, there will be considerable dust emitted due to the sheer volume of coal to be handled and the fact that all operations take place in an open air environment. Coal is by nature a very dusty commodity to handle due to degradation and the accumulation of fines and challenging to contain. The air and the water including the Columbia will be the recipients of the coal dust and we can expect the environment, employees, shipboard crew and the public to be negatively impacted by this prolonged and constant exposure to health risk. The Army Corps should reconsider the containment planned and assess the resultant exposure to the environment.

Lastly, I challenge the Corps to consider the impact of rising sea levels forecasted by science due to the warming of the earth from fossil fuels. The jetties will be at risk, erosion to shores, salt will find its way further upriver, and risk of floods will increase. All in all, this terminal will lay a trap for us all including the Corps and there is no real upside outside of 100 plus jobs. Is the risk worth a commodity that is going south anyway? I sincerely ask your further review and to not grant any permits to Millennium Bulk Terminals.

I truly appreciate the purpose and work of the Corps. My spouse's brother retired as a Colonel from the Army Corps, and he also graduated from West Point. I served in the Navy.

Sincerely,

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