



May 27, 2013

Mr. James Crandles
Director Planning and Development
Port Metro Vancouver
100 The Pointe, 999 Canada Place
Vancouver, BC V6C 3T4

Dear Mr. Crandles,

**Re: Application to Port Metro Vancouver by Fraser Surrey Docks for proposed
Direct Transfer Coal Facility at 11060 Elevator Road, Surrey, BC V3V 2R7**

Thank you for forwarding the information package with regards to the application by Fraser Surrey Docks (FSD) to develop this Direct Transfer Coal Facility.

I am responding as the Chief Medical Health Officer, under my required activity to protect the public as set out in the Public Health Act.

While Port Metro Vancouver is only responsible for the consideration of the FSD proposal and the associated local footprint it is not possible for me to consider this situation in isolation of other aspects of the proposed enhanced coal export stream.

Increased economic activity involving the creation of new jobs and thus the generation of municipal revenue to aid the financing of other community resources generally has a positive impact on the health of a community. However, the regular inhalation of coal dust is deleterious to health. At the level of higher work place exposures this can lead to the development of anthracite lung, coalminer's pneumoconiosis, emphysema and various other obstructive airway diseases. Even at lower levels coal dust can be associated with significant respiratory and cardiovascular disease and data exists to suggest that this can also have an adverse impact on pregnancy outcomes.

FSD Site and Currently Available Information

- The dispersion modeling provided to me is deficient in its description. The sources included in the modeling, the assumptions made, and the durations expected are not clearly articulated and it appears that not all of the handling issues have been identified. I am particularly concerned about the lack of information with regard to the "during transport emissions on the barges". We note that during barge movement, only some of the barges will have dust suppression with water, no surfactant is in use, and no appropriate verification is planned. Uncertainty also exists with regard to the use of the

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"small" stockpile, listed as being over two acres in size, and the potential emissions from this source during adverse weather conditions.

- While I am comfortable that the emissions concerns with regard to the modeling can and will be addressed by the Metro Vancouver permitting process, I urge Metro Vancouver to address all local airshed issues at this time and not just the footprint within the FSD site.
- Staff from my office will work with air quality staff from Metro Vancouver to ensure that our concerns are addressed.
- The information provided on wastewater management is insufficient. Information is provided with regard to the creation of a settling pond, but it is unclear what will happen to the coal dust residue, the amount of water with a particulate matter concentration less than 600 ppm which would be discharged to sewer is not clear, nor is the management of more concentrated discharge.

While barge movement and other non FSD site activity is not regarded as the purview of Port Metro Vancouver the public are particularly intolerant of piecemeal approaches to considerations of major projects.

Recommendations

1. It is probable that enhanced dispersion modeling and assessment of activity at the site and nearby will confirm that likely impacts will meet current regional air quality guidelines and objectives for particulates and other contaminants. While dispersion modeling may be reassuring, I note considerable community concern with regard to the project and recommend to Metro Vancouver and Port Metro Vancouver that any permitting should include substantial requirements for verification of modeling results and subsequent mitigation measures as necessary.
 - a. This verification should include continual air quality monitoring at a number of sensitive sites for not just the total suspended particles suggested but also PM10 and PM2.5 monitoring.
 - b. This verification activity should be associated with enforceable mitigation strategies. If available information, when activity commences, suggests that the modeling was inaccurate and a health risk exists, a decrease in activity and enhanced mitigation should automatically flow.
 - c. The verification process will aid the resolution of community concerns as they relate to direct health impacts.
 - d. The verification data should be publically available

I am aware that there are significant concerns about global warming and the use of coal in general and there is a desire by some of the concerned community to totally stop development of this product.

As Chief Medical Health Officer I cannot factor these views into consideration of local proposals.

Coal Train Activity and the Role of Burlington Northern Sante Fe (BNSF) Railway

While the Port's permitting process for FSD does not involve consideration of the BNSF activity and the coal train activity through White Rock and other residential areas, I believe this must be taken into consideration during any approvals process.

The information provided by BNSF is totally lacking in its capacity to provide reassurance to the affected public or to me. Commentary with regard to 85% reduction, a lack of complaints, the

benefits of surfactants and so on, fails to quantify the direct impact of the fugitive emissions from the rail cars.

Similarly some public statements such as “most emissions losses are in the first 5 km of travel” appear implausible as the potential is for the surfactant to be less effective the longer the train has been in operation and additionally meteorological and other factors would also be important.

Commentary with regard to other aspects of concern such as BNSF has a policy of giving priority to emergency vehicles in no way identifies how they would stop a train or allow an ambulance to pass during the 15 minutes a coal train transits some of the White Rock crossings.

Recommendations:

2. As Chief Medical Health officer I recommend that a full health impact assessment (HIA) be undertaken for this project, the inputs to the HIA should include the revised enhanced dispersion modeling noted above but also as a minimum include consideration of the following aspects:
 - a. The inhalation of airborne dust and its potential short and long term health impacts on respiratory illnesses and lung functions of residents along the rail runs and near the ship yard.
 - b. Clarification of the constituents of the coal types to be transported and the provision of the full description of the chemical composition of the coal. An assessment of the ingestion and or inhalation of lead, mercury and arsenic from air, land contamination, consumption of food grown on this land and shell fish harvested from contaminated waters.
 - c. An assessment of the air quality implications of the diesel exhaust generated by train and ship diesel engines used to transport coal and from heavy equipment used at the port facility.
 - d. The impact on air quality of idling trains and berthed marine vessels, as well as motor vehicle idling caused by the trains and ships. It is noted that this project will substantially increase train traffic and cause automobile traffic delays at train crossings. The idling vehicle emissions include volatile organic compounds, carbon monoxide, nitrogen oxide and particulate matter.
 - e. The likely impact of excessive noise associated with the increased activity.
 - f. The impact of the increased railway traffic on access to emergency care.
 - g. The potential impact of train derailment on emergency medical services on the trauma system.
 - h. The potential impact of railway traffic to pedestrian safety.
 - i. The potential impact of railway traffic on the enjoyment and participation of recreational activities in urban and rural areas along the railway path and in areas near the transport station.
 - j. An overall consideration of community wellness as part of the linking of the built environment to population health outcomes.
3. I recommend that the proponents be required to undertake the HIA, that the terms of reference of the HIA be agreed with my office prior to the commencement and that the independent contractors employed to undertake the activity be approved by my office prior to the commencement of the review.
4. I also recommend that verification processes be built in to the HIA and that non-compliance has meaningful consequences in the permit approvals.