

Gary Swann - Port Alberni,, British Columbia

Please accept the attached submission as comments from the Alberni Environmental Coalition prepared by AEC Director Victor Woods. This submission covers concerns arising from the d' AIR/ EISG for the Raven Underground Coal Project that may not have been fully covered in comments submitted by our experts hired through CEAA Participatory Funding.

**Comments on the Draft AIR/EIS Guidelines For the
Proposed Raven Underground Coal Project**

Prepared for the Alberni Environmental Coalition

June 21, 2011

Prepared by:
Victor Woods, AEC Director

Regarding the Raven Underground Coal ("RUC") Project: CEAR: reference # 10-03-55529.

Version 7.0 draft Application Information Requirements (dAIR) Section 5

5.6.2 Marine Environment

5.6.2.1 Detailed Marine Baseline

"A sediment quality survey (sediment sampling, physical and chemical analyses) will be completed to characterize existing contaminant levels of the sediments within the footprint of the proposed Port Facility upgrade and to determine an appropriate disposal method and disposal site prior to dredging."

The Alberni Environmental Coalition is of the opinion that the draft Application Information Requirements (dAIR) fails to sufficiently list details regarding the proposal to dredge potentially toxic sediments. These sections read as if a small sediment sample will be skimmed from the top layer and then analyzed. No dredging methodology has been provided and a precautionary approach would require this issue trigger an environmental assessment. Failure of due diligence could allow for the resuspension, bioaccumulation and biomagnification of known carcinogens.

The dAIR fails to identify accepted methodology for testing contaminated sediments. The dAIR must include 'core sediment analysis' and also include the prescribed procedure for assessing historically contaminated sediments.

Attached was paper: Toxic Sediments of the Upper Somass River ...

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Version 7.0 dAIR

2.2.9 Off-Site Facilities

2.2.10 Construction Phase Activities

2.2.11 Operations Phase Activities

2.4 Federal Scope of Assessment of the Proposed Project

4.2.5.1 Interaction between VC #1 and other Past, Present or Future Projects / Activities

The proposed Raven Project poses many issues along the highway #4 coal haul route to the proposed Port Alberni coal export terminal that could adversely affect the economy, environment and people. The dAIR does not address the concerns listed below and must include them into Version 8.0 of the dAIR.

ECONOMY

Tourism contributes greatly the economies of west coast communities. Given that six coal haul trucks each hour could be on the transportation route the odds of international and domestic visitors following or being stuck behind a slow moving coal truck are significant. What affect will this have on existing tourism, tourism

based employment and the costs associated with trucking durable and non-durable goods to Port Alberni and other communities located further west?

ENVIRONMENT:

Six, 25 meter long twin trailer-B coal haul trucks carrying 42 T of coal will be on the roads from mine site to the export terminal 24 hours each day 365 days a year. The new project proposal states that coal will be covered with tarps to minimize coal dust releases. Independent research indicates that fugitive coal dust is difficult to contain and that coal covered with tarps will generate significant accumulations of dust along coal haul transportation routes over time. This dust will then be carried east and west along the highway by all other vehicles and will eventually enter the marine environment when rains and snow suspend and transport the coal dust down slope. Once in the marine environment coal may leach it's toxic constituents, pollute and contaminate biota.

PEOPLE:

When faster moving vehicles traveling along a highway begin to approach a slower moving (coal haul) truck they will likely reduce their speed and wait for an opportunity to pass that vehicle. If enough time has passed, more vehicles may form a long line behind the slower moving vehicle that is reducing traffic flow. This scenario is referred to as the *platooning effect*. Often the drivers of lighter faster vehicles can and do take unnecessary risks and attempt to pass the slower vehicle. Depending on the patience and cognitive ability of the lighter and faster moving vehicle when combined with road and weather condition, the time of day or night things can happen; accidents, injury and sometimes death.

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Section 2

2.2.9 Off-Site Facilities

PORT ALBERNI

The dAIR details concerning the construction and operation of a coal export terminal for Port Alberni are too vague and exclude critical details that would not allow the general public to make an informed decision.

The d'AIR excludes mention of the use of a 'baghouse filter' system that was originally proposed in October 2010 by Pincock, Allen and Holt (contracted by mine proponent). At that time a baghouse filter was proposed. Such a filter would create a

negative pressure environment that intended to reduce fugitive coal dust in the coal receiving area, storage facility and enclosed conveyor systems.

As for the dAIR, what is proposed for containment of fugitive dust is now unclear. This issue needs further clarification as it could present a health hazard due to fine and ultrafine particulate matter being dispersed into nearby residential neighbourhoods, which could assist in the creation of a cancer cluster within the human population of Port Alberni. Port Alberni is one of the worst locations in Canada for dispersing and diluting airborne particulate matter and for the dAIR not to address this issue seriously indicates a credibility issue.

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5.6.-1 Marine Environment Valued Components

The list of SoF (species of focus) is inadequate and must be expand to include all biota found in and around the waters of the Somass River-including the tidal inundation zone area, the Somass Estuary area, the Alberni Inlet and Trevor Channel areas.

The current dAIR reads poorly, it excludes species that exist and could potentially be harmed should the Raven Project be allowed to proceed.

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Section 4

4.2.2.1 Identification and Analysis of Potential Project Effects

This section of the dAIR is extremely weak and fails to list/mention:

-the emergency measures, facilities and warning systems that would be established to deal with a possible 34 tonne diesel fuel or bunker C fuel spill in the Somass estuary, Alberni Inlet, Trevor Channel or The Broken Islands Group if an emergency situation should occur with a Panamax sized ore carrier.

-if a coal freighter should sink to the bottom in the Alberni Inlet – what is the likely impact or cost: to aquatic life, to the livelihoods of fishers, to the health of local people that depend on sea food as their main source of protein, to tourism related jobs, to the national and international image of Vancouver Island and to the marine ecosystem? Who will pay the financial costs for attempts to mitigate the damage

from such an event?

-if a full shipload of coal is accidentally discharged into the waters of the Alberni Inlet what will the emergency clean-up plan consist of and who will be involved?
Is there data on what oils and black water discharges will occur while a coal ship is at dockside including toxic diesel exhaust emissions and what hazards if any these activities could pose to the health of human and marine life?

-what are the anticipated number of coal ships that are expected to arrive annually in port? Is this number likely to increase if production at the mine site increases?

-will coal or aggregate from other existing or proposed mines be shipped out of this port? Compliance Energy Corporation has also proposed the development of 'Bear' and 'Anderson' open pit coal mine projects near the Comox Valley? Coal from these two additional mines could dramatically increase coal shipments through Port Alberni, what cumulative effects studies will be undertaken?

-internationally, will a review of coal transport vessel incidents be completed so as to determine the odds of a marine incident occurring within the Alberni Inlet and also to determine what factors likely contribute to their groundings and sinkings?

-in the event of a tsunami what are the emergency contingency plans for containing the coal at the storage facility so that it is not discharged into the Alberni Inlet or scatter throughout the surrounding agricultural lands? Such an event could ruin future farming prospects as soils may become toxic with heavy metals.

-combustion/explosion of the coal storage area is a concern. What measures will prevent an enclosed coal stockpile from igniting?

-are the Port Alberni emergency service equipped to respond to a large-scale incident involving 70,000 to 80,000 tonnes of coal and possibly a large ship? If not what measures and equipment would be required and what are the financial costs involved and who will pay for this emergency response?

-will a hazard assessment be done for the proposed export terminal in relation to ground disturbance – an earthquake? Planning and development in Port Alberni's harbour must factor in this high relative hazard.

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Section 2
2.2.7 Access and Power
2.2.9 Off-Site Facilities

Aside from two brief mentions in 2.2.7 Access and Power and 2.2.9 Off-Site Facilities the coal export terminal's geographical/physical location does not mention that the proposed industrial facility will be sited within 50 meters of an occupied residential neighbourhood.

Constructing and operating a coal export terminal within the city proper will likely result in:

A drastic and undesirable cultural change contrary to community desires as witnessed in the 'Port Alberni Community Assessment: Taking Action for Community Sustainability Planning 2008', http://www.coalfreealberni.ca/proponents_port_albernis_outlook_2020_vision.html; '3rd Avenue Uptown Redevelopment Project'; the 'Uptown and Waterfront Redevelopment', <http://www.portalberni.ca/CityHall/Planning/UptownWaterfront/UptownWaterfrontReport.pdf> and the City of Port Alberni's 'Peoples Voice: A Local Government Satisfaction Survey', http://www.portalberni.ca/files/PA_Local_report_Feb0608.pdf. These documents indicate that a majority of Port Alberni citizens want to move away from the industrial economic and physical model of the past.

At the time of writing, the City Council and mayor have not adopted a formal position regarding the proposed coal export terminal. However, media reports indicate that public opinion does not favour coal. Indeed both organized labour and individuals are beginning to rally against the proposed coal terminal and the mine itself. (Coal Free Alberni is gaining momentum Keri Sculland, Alberni Valley Times Published: Tuesday, November 30, 2010). (Labour council rejects Raven Coal Project Shayne Morrow, Alberni Valley Times Published: Friday, November 26, 2010).

In this regard, the coal export terminal proposal seems to be in conflict with the wishes of the electorate and should it go ahead it may constitute a betrayal of the public's trust. Recently, a few individuals have sold their homes in anticipation of coal flowing through the city - others are quietly planning their exit strategy or their fight-back.

People residing in the primary zone of influence of the proposed coal export terminal maybe exposed to:

- Constant, excessive industrial noise levels
- Excessive light pollution, the darkness of night will cease to exist
- Vibration pollution, the constant shaking of their homes and their persons
- Excessive coal dust and diesel exhaust emission-particulate matter
- Serious financial losses as the value of their homes decrease in value
- Who wants to live next to a coal export terminal with all the popularly held negative connotations.

- The cumulative effects of all the above-mentioned factors.

Further, 50-meters is an insufficient distance to provide for an effective physical barrier between a vibrant city neighbourhood and a large industrial facility. How large an area will the primary zone of influence encompass? Even the Buddha would have difficulty not acknowledging that the windows of his home vibrated all day-everyday, that there was not darkness at night and that windows have to be kept closed permanently so as to 'reduce' noise and dust from entering; that his garden produce was no longer edible due to pollution, etc. How much will those living within the primary zone of influence have to pay for that experience?

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Section 2

2.7 Proposed Project Benefits

The Proposed Project Benefits are inadequate and misleading.

In the event of a construction permit being issued to Compliance Energy Corporation to proceed with the coal export facility in Port Alberni the following scenarios may become reality:

-many existing residents residing close to the proposed coal facility would likely try and sell their homes - who would purchase these homes? Furthermore, how would the greater real estate market be affected if X amount of homes located close to the terminal were listed for sale within a short period of time?

-throughout Port Alberni, property owners could realize devaluations up to 20% or more? Citywide property devaluations could exceed two hundred and twenty- five million dollars?

-a great number of property owners with 'little equity' could face foreclosure. Financial lending institutions usually require people to have at least 10% equity in a financed property. Should the market value of homes decrease significantly - foreclosures could increase within the city - an inverse equation.

-city tax revenues may initially decline, resulting in reduced cash flow - a negative financial benefit from having the coal export terminal located on its waterfront, prime tourist areas and near residential neighborhoods may become reality? This would force the City of Port Alberni to increase property tax rates so as to maintain city services.

-investment/capital may flow out of Port Alberni; this could be followed by increased unemployment? As a consequence the numbers of vacant buildings may increase and signs of urban decay could become increasingly visible, crime and related activities may increase?

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Section 5

5.2 -1 Atmospheric Environment Valued Components

Table 5.6-1 Marine Environment Valued Components

5.2-1 and 5.6-1 are not comprehensive in addressing the issue of fugitive coal dust which must be studied at a greater depth than being proposed in dAIR Version 7.0.

What are the long-term accumulative health implications of subjecting a human population to consistently high levels of fine and ultra fine particulate matter as will likely be generated by diesel emissions and fugitive coal dust? As proposed the methodology in this dAIR does not address/mention fine and ultra fine particulate matter, this issue must be researched and compared to non-mining communities in Australia and Appalachia that reside near coal extraction locations.

Coal dust concerns exist whether coal is trucked to port via truck or train. A brief literature review indicates that coal dust is extremely difficult to contain. Even if loads are covered with tarps, industry experts indicate that transporting coal involves dust accumulations along transportation corridors. Historically, public concerns regarding coal dust prompted citizens to initiate a class action lawsuit against CP Rail and coal dust has angered people in White Rock and in the community near the Roberts Bank coal export terminal. Coal dust had been documented to cause damage to homes and properties in general; such claims have resulted in financial settlements.

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Section 4

Figure 4-2 Framework for Assessing Potential Effects from the Proposed Raven Project

5.3.2.2 Potential Effects of the Proposed Project and Proposed Mitigation

5.5.1.1 Freshwater Fisheries and Aquatic Resources Spatial Boundaries

The dAIR Section 4 cited above does not address the issues of quantity with regards to the volume and the source of the water required for the coal export terminal and

port facility. What water volumes will be required by the proposed export terminal and what is the source – what river, creek or reservoir will supply the coal facility?

-will the transportation of coal through Port Alberni by any method - truck, train, conveyor system, etcetera require fresh water to be used to suppress fugitive coal dust? Will the existing water supply infrastructure need to be upgraded and if so who will pay for this?

-if regional aquifers were depleted in a given year and water was need for fugitive coal dust control – what is likely to occur, will the domestic supply take precedence over industrial needs?

-should water be in short supply in any given year and supplies were severed to the coal facility and fugitive dust became an issue, would the terminal be allowed to carry on business as usual? Would the intensity level of dust be acceptable to city residents?

-will local water supplies, in any way be attached to the coal facility by way of Canada's Free Trade Agreements with other countries? In the context of selling coal, are Canadian companies like Compliance Energy Corporation or its affiliates for example bound by World Trade Organization (WTO) rules to supply Japan: ITOCHU and Korean: LG International Corp. with unrestricted product volume? What existing rules, regulations, conventions etc, of the WTO could pose a risk to the water resources of the Alberni Valley region or Canada in general?

-although Port Alberni is situated on the opposite side of Vancouver Island from the Raven Underground Coal Mine, concerns exist with regard to possible contamination of the underground aquifers should acid drainage become a reality. A thorough analysis of groundwater flows and aquifer mapping must be completed prior to this project proceeding any further.

All of the above concerns and probable issues must be included in the revised dAIR/EIS.

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Section 2

2.2 Proposed Project Description

2.2.7 Access and Power

Version 7.0 of the dAIR and Sections 2.2 and 2.2.7 do not address the costs of degraded pavement structures should the Raven Project be allowed to proceed. Version 8.0 of the AIR/EIS must include the concerns mentioned below.

The existing highway and city pavement structures may not support the coal truck haul from the Raven mine site to the coal export facility in Port Alberni. City roads including highways are usually designed with an anticipated volume of 18,000 lb. axle loads that the roadbed will be subjected to over its design life. For a given pavement structure, the increase in truck traffic brought about by an increase in the tonnage associated with coal mine haul will therefore shorten the life of the pavement on the route where the haul occurs. Maintenance costs will increase and ultimately, if the road is subjected to sufficient increased haul, the road will require an overlay or total reconstruction.

The design approach used in urban areas will be somewhat different. On truck routes or other streets designed for heavy truck traffic, the same design approach as used on the highway system may be employed. On lower volume streets, a standard pavement structure may be used throughout the city. On routes where there might be bus traffic, an increase pavement structure is generally increased by an arbitrary amount. However, it is very unlikely that aside from a very limited number of thoroughfares, the type of loading associated with multiple passes of Super B Trains that the coal haul would need could be accommodated. As such, even those main thoroughfares will be subjected to increased maintenance costs and ultimately an over-lay or reconstruction. Will the City of Port Alberni and taxpayers have to shoulder these expensive road and street repair costs? If so, then the taxpayers of Port Alberni will be subsidizing Compliance Energy Corporation.

Additionally, roads used by heavy trucks are associated with a phenomenon called 'platooning' where large volumes of light vehicular traffic accumulate behind slower moving vehicles. During these circumstances drivers of light vehicles have been documented to take unnecessary risk when attempting to pass slower moving vehicles often resulting in increased rates of injury and death. Also, slow moving coal haul trucks along highway 4 will limit the free-flow of other commercial highway traffic, which could contribute to increased costs of delivering necessary goods and services to communities located in Port Alberni, Tofino and Ucluelet.

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Section 4

Figure: 4-2 Framework for Assessing Potential Effects from the Proposed Raven Project and Atmospheric VCs

Figure: 4-2 Framework for Assessing Potential Effects from the Proposed Raven Project and Atmospheric VCs does not provide the breadth and depth of scope needed to capture the total climate change producing emission impacts from the proposed Raven Project. Cumulative effects from the proposed mine must also

consider an in-depth study of atmospheric circulation patterns when and wherever Raven coal is combusted. This data have been well documented as the text below indicates.

"Canadian Technical Report of Fisheries and Aquatic Sciences 2412 (2002) 6.2 ATMOSPHERIC DEPOSITION 6.2.1 Long Range Transport of Atmospheric Pollutants (LRTAP) Contaminants in either particulate or gas phase can be transported great distances in the atmosphere from their site of origin. These can include PCBs, dioxins and furans, fossil fuel combustion by-products (PAHs), heavy metals (particulate Cd [Cadmium] and gaseous Hg, Cu, [page 72 Pb] and persistent organic compounds such as pesticides (hexachlorocyclohexane, toxaphene, DDT, lindane, etc.). In the North Pacific, air moves from Eurasia to North America, predominantly along mid- latitudes in a circulation pattern called the westerlies. Movement of air masses out of Asia and across the Pacific Ocean is most pronounced in the winter and spring, with the approximate time to traverse the Pacific being 5-10 days. As a result of this general air circulation pattern, pollutants from Asia have been detected as far east as Washington State (Jaffe et al. 1999). A large dust storm comprising metals of Chinese origin was tracked using satellite remote sensing from China as it moved to North America (Wilkening et al. 2000)."

"Although high concentrations of PCBs reported in southern resident killer whales may be partly attributed to local (coastal) sources, contamination of their food supply might also occur in the open ocean due to atmospheric deposition of pollutants into marine areas where salmon feed and grow (Ross et al. 2000). Studies on the Fraser River watershed in B.C. suggest that atmospheric transport of pollutants from Asia and elsewhere likely contaminated the sediments and biota of remote lakes (Macdonald et al. 2000b). Also attributed to atmospheric transport processes are high concentrations of POPs observed in snow from the Canadian Rocky Mountains (Blais et al. 1998). In coastal Washington, episodic transport of pollutants from Asia has been observed at the Cheeka Peak Observatory during spring (Jaffe et al. 1999)."

"Contaminants can be transported from the western to eastern North Pacific (Eurasia to coastal B.C. and Washington), through atmospheric processes associated with prevailing westerlies. Although high contaminant concentrations in resident killer whales partly reflects local contamination in B.C. and Washington State, the atmospheric delivery of POPs of Eurasian origin to Northeast Pacific food chains is also likely to contribute to their contaminant burdens." <http://www.dfo-mpo.gc.ca/Library/266178.pdf> (page 72).

World Bank To Help Developing Countries Respond To Climate Change.

"The World Bank said on Tuesday that it will launch a new multi-million-dollar fund to help developing countries respond to the challenges of climate change. "We know that the poorest countries will suffer the earliest and the most from climate change," said World Bank President Robert Zoellick. "They will bear the brunt of changing weather patterns, water shortages and rising sea levels even though they are the least equipped to deal with them," he said."

[Xinhua/Factiva]

Reuters adds that "...the fund, which could reach up to \$100 million, will provide technical and other support to developing countries to develop their own carbon markets. Zoellick noted that more World Bank member countries are making climate change a priority in their development plans. In 1990 about 10 percent of countries included climate change in such plans. That number has grown to over 80 percent..." [Reuters/Factiva]

Meanwhile, AFP reports "...to the surprise of some of the hardened negotiators, the talks [in

Cancun] have appeared to bear fruit with a compromise eyed on one of the key stumbling blocks – verification of nations’ promises to fight climate change. China climbed down from its past refusal on verification after India drafted a compromise under which all countries responsible for more than one percent of emissions would submit to verification but not face ‘punitive consequences.’...

‘It is absolutely imperative that we deliver something, something substantial.’ EU Climate Commissioner Connie Hedegaard said. ‘To come out of Cancun with nothing is simply not an option.’... [Agence France Presse/Factiva].

World’s Glaciers Melting Amid Warmer Temperatures --- UN Study.

“Glaciers around the world are melting amid warmer global temperatures, especially near the North and South Poles, and particularly Alaska, Argentina and Chile, according to a study released Tuesday by the UN Environment Program (UNEP).

The report, compiled from an array of scientific studies, found that glaciers in the northwest U.S. and southwest Canada and in the high mountains of Asia, including the Hindu Kush of the Himalayas, also have been melting...” [Dow Jones/Factiva]

AFP notes that “...Many low-lying glaciers may disappear over the coming decades, with the northwest United States, southwest Canada and the Arctic also affected, according to the report – presented at UN climate talks in Cancun, Mexico. Most glaciers --- which are formed by accumulations of snow and ice –

-- started shrinking around 150 years ago, but the rate of ice loss has increased significantly since the 1980s, the report said.

“Averaged over their entire areas, within the period 1960 to 2003 glaciers in Patagonia and Alaska have thinned by approximately 35 meters and 25 meters, respectively,” it said. Warmer temperatures due to climate change were a major factor in melting the glaciers. Another cause could be the deposit of soot, reducing the reflection of heat back into space, according to the report...” [Agence France Presse/Factiva]

Reuters writes that “...The melting of glaciers was triggering more frequent ‘glacial lake outburst floods,’ when masses of melted water burst through brittle rock barriers and inundating valleys below, said the report. ‘People in the Himalayas must prepare for a tough and unpredictable future,’ said Erik Solheim, Norway’s Environment Minister, in a statement accompanying the report...” [Reuters/Factiva]

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Section 2

2.7 Proposed Project Benefits

2.7 Proposed Project Benefits in Part A of the dAIR is the only mention of ‘jobs’ – the word ‘jobs’ appears only once. The vague mention of jobs must be corrected and expanded to include a detailed list of all proposed employment including skilled and unskilled positions and must state which jobs are ‘full time and which are considered casual or part time’.

Concerns exist as to the actual number of full time jobs that will be created if this project is allowed to proceed. Given technological innovation/mechanization, could most of the forecasted 21 jobs be on a casual basis?

