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*Whites Point Quarry and Marine Terminal Project  
Joint Review Panel*

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February 27, 2007

Mr. Paul Buxton  
Bilcon of Nova Scotia, Corporation  
P.O. Box 2113  
Digby, NS B0V 1A0

Dear Mr. Buxton:

The Whites Point Quarry and Marine Terminal Project Joint Review Panel has received your response to the information requests on the Environmental Impact Statement. Our preliminary review indicates that not all of the information requested has been provided and that several important changes to the proposed Project have appeared for the first time in your response document. While some of the missing or confusing information can be obtained or clarified at hearings, the Panel believes that some issues are of sufficient importance that specific clarifications are required now.

Accordingly, the information request attached to this letter documents key elements that the Panel requires prior to confirming dates for the hearing process. Be advised that the Panel may submit additional information requests to you as our review of the response document continues. We will confirm or waive this requirement at the earliest possible date.

Thank you for your prompt attention to this task.

Yours sincerely,

Original signed by:

Robert Fournier, Chair

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**1. Project Description:** Several new elements have recently been added to the Project Description.

*a) Temporary Rock Storage Area*

During the construction phase the levelling of the Processing Area will generate ~1,140,000 cubic meters of rock material of which ~400,000 cubic meters will go to the temporary rock storage area. An additional ~375,000 cubic meters is to be stored on-site or shipped as rip-rap.

- Provide the location of this second temporary rock storage area, showing its footprint and the environmental control structures associated with it.
- If additional material is to be shipped as rip-rap, explain how this is possible before the Processing Area has been completed. Will the ship loader and its associated equipment be capable of handling rip rap? Will this material be washed? Will some of this material be shipped by road?
- According to the plans provided, the primary rock storage has a footprint of ~8 ha and will have a height of ~40 meters. It will almost assuredly cover the natural drainage that maintains the coastal bog. Explain how adequate flow will be maintained to the bog.

*b) Sediment Ponds*

The consultant's report (CRA) states that the proposed sediment pond configuration will not be able to accommodate the 100 year maximum 24 hr storm event or the 100 year maximum 5 day event.

Provide specific quantitative information on how this problem will be addressed:

- If emergency drawdown is part of the solution, provide information on the anticipated volume of such releases, the amount of sediment involved, and the environmental effects on the near shore marine environment. Evaluate the effect of such a release on the constructed wetland. Provide estimates of the time needed to complete the necessary emergency drawdown.
- If the berm height is to be extended beyond that currently specified, provide the maximum height and a cross-section of its construction, as well as an expert evaluation of its stability.
- If the depth of the ponds, below grade, is to be increased, provide definitive information on their construction and how groundwater interaction will be avoided.

- If additional sediment ponds are to be constructed, provide their location and capacity.

**2. Coastal Conditions:** The Project and its marine facilities are located on an exposed, unprotected coastline. Extremes of wind, waves, currents, tides and storm surges, as well as their change with climate change over the next 50 years, need to be considered. Evaluate the possible impacts of these extremes on:

- the integrity of the ship loading facility
- the risks involved in docking and mooring a large bulk carrier
- the integrity of the environmental structures (constructed wetland, sediment ponds & environmental protection zone) which lie partially or completely beneath the current 10m contour

Such data must be available prior to the engineering phase, consistent with the methodology and its importance, already stressed by the Proponent. In addition, the Panel, Environment Canada, Natural Resources, and Partnership for Sustainable Development are on record supporting the view that this information is vital at this stage.

Similarly, the Panel requires site-specific information on normal and seasonal variations in coastal oceanographic conditions, including tides, tidal currents etc. This information is required to evaluate properly potential impacts arising from:

- normal and accidental sediment releases
- normal and emergency water releases
- probable dispersion patterns
- marine accidents malfunctions and their clean-up during 'normal' and extreme conditions

**3. Copper Content:** The average copper content of the of the Upper Flow basalt unit will determine the copper content of aggregate washing residues that will be pumped into the sediment storage area, and, to a large extent, the sediments deposited in the sediment ponds. To date, six samples from the site have been analyzed that show a range from 27 to 230 mg/kg, a mean value of 101 mg/kg, and a large standard deviation of +/- 75 mg/kg. This average exceeds Canadian soil quality guidelines for agricultural, residential/parkland and commercial/industrial uses. The ISQG for marine sediments is 18.7 mg/kg and Bay of Fundy sediments average 19 mg/kg.

Since the Proponent proposes to spread this material for reclamation, and since unknown amounts of it may be released into the near shore marine environment during an emergency release of water from the sediment ponds, statistically greater robustness of the average copper concentration is required. Runoff from the reclaimed areas will not be bermed: an assessment

of the environmental impact of elevated copper levels in the reclamation soil should be provided.

**4. Water Table / Hydrogeology:** In the Revised Project Proposal figures IR8-1 to IR8-7 present vertical sections through the proposed quarry at different stages of its development. Each figure shows the water table. The response to the Panel's Information Request (WP 1452) states "the well monitoring data collected since September 2005 reinforces this position and Figures IR8-1 to IR8-7 reflect the location of the water table based on all the data collected."

The Panel does not interpret the CRA report as supporting the extrapolations provided in the sections, and requires details on the method the Proponent has used to extrapolate the measurements. Confirmation of the validity of the extrapolations is required.

Only two drilled wells (NS-02-04 & MW-2) at the margins of the proposed quarry area in the first 15 years yield any water table data (MW-6 is compromised and unreliable). The Panel requires more reliable and relevant hydrogeologic data for this area to evaluate the impact of the quarrying and the effectiveness of proposed mitigative measures.

**5. Ground Water Divide:** The CRA report concludes that the topographic (surface water) divide does not coincide with the groundwater divide. The Panel's IR requested the Proponent to "delineate the groundwater divide. If the two do not coincide, re-evaluate the effects on the mining plan and the wells on adjacent properties."

The Proponent is asked to fully address the previous IR in view of the new data provided by CRA.

**6. Fishing:** The Proponent should rectify the omission of information previously requested regarding herring: their distribution and related fishing activities.

**7. Blasting:** Information on blasting is widely dispersed throughout the materials provided. Some inconsistencies have been discovered. In order to properly understand blasting issues as well as to assure currency of information, the Panel requests that the Proponent consolidate all the material on the assessment of blasting into a single document. This document should include, among other concerns, the following topics:

- known effects of blasting on relevant marine and terrestrial organisms

- blasting parameters during construction and production phases (averages and degree of variability)
- climatic conditions (fog, rain, snow, thermal inversions, ambient light) under which blasting will not occur and quantification of these conditions (also previously requested by DFO, Environment Canada, & the Panel)
- wildlife restrictions on blasting and specific information on their implementation
- physical environmental effects monitoring; marine and terrestrial
- biologic environmental effects monitoring; marine and terrestrial
- nature and monitoring of the initial test blast, refinement of the predictive impact model, duration and of model verification phase, role of the model
- mitigation measures related to blasting
- listing of conditions imposed by blasting regulations (provincial, federal)

**8. Community Liaison Committee:** The role of the CLC remains unclear to the Panel. Material referring to the role of the CLC is distributed throughout the reports received. Consolidate information on the CLC from various documents. Clarify the way in which the activities of the CLC will be linked to management decision-making through the adaptive management strategy.

**9. References:** The Panel notes that in recent documents many statements are made and conclusions drawn without proper documentation of the evidentiary sources. Provide a complete and consolidated list of references for the sources used throughout the material.