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

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December 18, 2006

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 Joint Review Panel has reviewed the *Revised* Project Description (November 2006) and submits the attached ten information requests for your response. These information requests represent specific deficiencies in certain aspects of the *Revised* Project Description and are not meant to form an exhaustive list. I remind you that a complete Project Description realized in an appropriate level of detail is required by the Joint Review Panel at the earliest possible date. I refer you to our July 28, 2006, EIS Information Request in this regard.

Moreover, the Joint Review Panel had intended to determine if further information would be required from you to support the assessment of alternative means of undertaking the Project after we received the revised Project description (Item 7.1, EIS Information Request, July 28, 2006). In the interest of efficiency, the Panel now requests that a consideration of the technically and economically feasible alternative means of carrying out the project and the environmental effects of these alternative means be included in the Project description. Refer to section 7.2 of the EIS Guidelines (March 2005) for further instructions.

Yours sincerely,



Robert Fournier, Chair

## **INFORMATION REQUESTS ON THE REVISED PROJECT DESCRIPTION**

### **IR-1**

The Sediment Disposal Area for years 1-20 (OP1 to OP4) is shown enclosed by berms but shows no provisions for drainage. The relocated sediment disposal area, after year 20, appears to be connected to the drainage system. Explain how precipitation accumulated in the sediment disposal area will be drained and demonstrate how the system would withstand the 100 year maximum 24hr storm event.

### **IR-2**

In plan OP-1-R1 the Watershed Drainage is shown to discharge into the coastal bog (environmental preservation zone) via underground drainage (pipe). As shown in Fig. IR8-1 this underground drainage appears to occur across the active quarry face for years 6-10. After quarrying terminates in this area, a +/- 27 meter cliff will separate the drainage channel from the pipe. Explain how adequate drainage is to be maintained during and after quarrying of this area.

### **IR-3**

The drainage from the Organic Disposal Area (Plan OP2-R1) is shown to discharge into Sediment Pond 5. During years 6-10 this drainage occurs across an active quarry area. Explain how the drainage can be maintained during the active quarrying in this area.

### **IR-4**

Throughout the life of the quarry the main drainage is shown to be via a channel, immediately east of the sediment ponds, that initially discharges into Sediment Pond 4 and then into Sediment Pond 5. Elevation of Sediment Pond 5 is shown to be +/- 10 metres. In Plan IR-7 this channel is shown to have a 10 metre elevation as it crosses under the ship loader and it is shown to drain the live storage area which has a 10 metre base elevation. The flow in the sediments ponds adjacent to this channel is shown to be in the opposite direction. Using profiles and gradients (or other means) demonstrate the viability of the proposed drainage pattern under normal and extreme conditions.

### **IR-5**

In the sections (e.g. Fig. IR8-1 & IR8-4) the sediment ponds are shown to intersect the water table. Explain how groundwater infiltration will affect the storage capacity of the sediment ponds during storm events, such as the 100 year maximum 24hr storm event. Provide information on the effect of groundwater withdrawal by the sediment ponds on the local water table.

### **IR-6**

The sediment ponds are stated to serve three purposes: sediment retention, process water storage, and surface water (including storm water) management. On p.78 it is stated that 1 metre is needed for sediment storage, 2.5 metres for

permanent water storage for processing etc., and 1.9 metres to accommodate the 100 year maximum 24hr storm event. Explain how this can be achieved with sediment ponds having a 4 metre depth.

The consultant report by Conestoga-Rovers notes that "Given proposed pond design, sufficient capacity would exist to contain the 100-yr flood volume, assuming the ponds were or could be drawn down to sufficient levels to accommodate the flood flows." Is it the intention to 'flush' the system prior to each major storm? Will the ponds be equipped with pumps to achieve this?

#### **IR-7**

The maximum water volume which the system may have to handle has been determined using the 100 year maximum 24hr storm event (Conestoga-Rovers report). In view of the time lag between the precipitation event and final discharge into the ocean, a more appropriate prediction of the maximum volume the system may have to handle would be obtained from the 100 year maximum 5 day total precipitation event. Provide calculations of water volumes generated by such an event and the free depth in the sediment ponds needed to accommodate such a volume.

#### **IR-8**

The debris cycle schematics for years 1-20 (OP1-9-R1 etc.) show a slurry line from the High Rate Thickener to the Sediment Disposal Area. Provide information on the specific gravity of the slurry to be pumped, the gradient and distance of the line, and the equipment to be used. In years 11-15 the slurry line is shown to cross the active quarry area. Explain how the line can operate in an active quarry area.

#### **IR-9**

Prior to the first shipment of aggregate from the site, rock debris from site preparation is to be accumulated at the Temporary Rock Storage site. Rock debris will be generated from excavation of Sediment Ponds 2, 3 & 4 and the loading tunnel, leveling of the Plant Processing Area, the Live Storage Area, the Quarry Compound Area, the Organic Disposal Area, and the Sediment Disposal Area. Provide a breakdown of the volume of material generated from each of these sites, and a total volume of material designated for the Temporary Rock Storage site. Provide the footprint of the Temporary Rock Storage Site, the estimated height of the storage pile and its slopes. Provide details on the berms around the site and its drainage.

#### **IR-10**

On p.78 the sediment ponds are stated to require clean-out approximately every nine years. This assumption neglects the fact that the accumulation rate in the upper two ponds will far exceed that of the lower two. Provide detailed information on the clean-out procedure. How will the upper sediment ponds be bypassed during clean-out?