



ATLANTIC ENGINEERING CONSULTANTS LTD.

ENGINEERS & PROJECT MANAGERS

Town of Gillams
PO Box 3968, RR#2
Corner Brook, NL A2H 6B9
Attn: Mayor Joy Burt

September 26, 2011

**RE: Town of Gillams, New Intake
Pressure Reducing Valve and System Connection Update**

Dear Ms. Burt:

The new water transmission main and intake for the Town of Gillams has been installed and the final connection and cleanup was completed during the week of September 19-23. AECL is currently evaluating alternatives to rectify issues with the existing pressure reducing valve (PRV).

The existing PRV has an inlet pressure of 90 psi and an outlet pressure of 30 psi. With the existing flow conditions, this 60 psi pressure differential puts the valve in a cavitation condition. This cavitation creates disturbance in the valve which, along with the age of the valve, has been causing it to fail creating high downstream pressures and causing a loss in vacuum at the chlorine injection point. In addition to the existing pressure differential problems, the new intake location has added another 15 psi at the inlet side of the PRV for a total pressure differential of 75 psi. As such, the solution to the pressure and chlorination problems is to replace the existing valve with a new valve capable of withstanding a higher pressure differential.

A new PRV capable of withstanding this pressure differential has been selected and a change order request has been issued to the Contractor for supply and installation of this item. It should be noted, however, that the delivery time for the new PRV will be in the range of 3 weeks with an additional week for setup and installation. Based on this delivery time, it is anticipated that the new PRV will be in-place, which will allow the new water supply to be switched over, by mid to late October. As soon as the exact delivery time is confirmed, AECL will notify the Town of a more firm installation date.

If you require any further information please contact the undersigned at your convenience.

Sincerely,

ATLANTIC ENGINEERING CONSULTANTS LIMITED

**Ian N. Osmond, P. Eng.
Project Engineer, Civil**