

UNDERTAKING J6.13

UNDERTAKING

TR 6, page 138

EGD to provide system regulation alternatives and associated costs.

RESPONSE

Enbridge maintains that the Company will design its network systems to operate at a level below the MOP of the network, even in design day conditions. At our regulating facilities, Enbridge must also maintain a first level of operating regulators and a level of over pressure protection, in the event that the first level of pressure control fails. Enbridge has chosen as a design philosophy to use operator and monitor configuration, as opposed to full capacity relief, for reasons as previously stated in Undertaking JT1.8.

Directionally Enbridge is looking to lower (not raise) operating stresses on lines operating over 30% of SMYS. Enbridge is not looking to raise the operating pressure on this line from the current 3103 kPa (450 psi) maximum setpoint that the Company has been operating at for many years.

The difference between the station pressure and monitor setting is dependent on the pressure category, type of regulator, and the over-pressure protection design. The regulators used at Victoria Square Gate Station are gas actuated ball valves. An alternative approach that would slightly reduce the pressure fluctuation above and below the operating pressure would be using "electrolic" actuators. These would cost approximately \$300,000 plus design and installation changes and costs. In addition, if finer control of the setpoint pressure is set, then the regulator may continuously throttle to find that setpoint, causing early deterioration of the equipment.

In order to control the operator regulators properly, while having the monitor regulators maintain a protection level, the Company must have a pressure separation between the operator and monitors. Otherwise each of the regulators tries to manage the control of the downstream pressure, causing a "conflict". Additionally, SCADA alarm limits are set to ensure that there is sufficient notice and time to respond to upset conditions and prevent pressures from exceeding the MOP. Having slightly less pressure differential on the regulator settings and alarms, while perhaps technically possible, would provide less flexibility to respond to upset conditions safely and effectively.

Witness: N. Thalassinos