Q. Numerous overload conditions on the 230kV system are noted in section 6 of the Upgrade Transmission Line Corridor Report for post contingency situations. Are each of these overloads present on the existing system for the same or similar contingencies? Explain your response in detail.

A. All transmission studies completed in the Upgrade Transmission Line Corridor Report were completed assuming the integration of a 900 MW HVdc bipole transmission system between the Muskrat Falls Hydro development and the proposed Soldier's Pond Terminal Station on the Avalon Peninsula.

For the existing isolated Island Interconnected System, many of these, or similar, overloads could exist post contingency without mitigative actions. Today, operators follow documented operating instructions to dispatch hydro and thermal generation on the Island to manage the power flows on the 230 kV transmission lines east of Bay d'Espoir. The instructions are designed to ensure that following a transmission line contingency flows in all remaining lines are maintained at or below their calculated thermal ratings when the available standby emergency generation (i.e., Hardwoods combustion turbine) has been brought online. The operating instructions allow adjustment to the transmission line thermal ratings depending on the ambient temperature and specify generation dispatches on either end of the Bay d'Espoir – Western Avalon transmission line corridor to limit power transfer at a particular system load.

The base cases used in the analysis contained within the Report were tested to identify the limitations during contingencies and ensure that any resultant overloading can be mitigated with the available system resources.