Q. At page 2 of the Executive Summary provided by System Improvements, Inc. (Appendix A), it is stated that: "The control circuitry for the secondary pump calls for a re-start based on both loss of the primary AC pump and loss of lube oil pressure. The secondary pump re-started three minutes after the unit tripped."

(i) Has it been determined how long after failure of the primary AC pump that lube oil pressure was lost?

(ii) Based on Hydro's understanding of how long after failure of the primary AC pump that lube oil pressure was lost, was the re-start of the secondary AC pump at three (3) minutes within the expected time frame?

A. (i) With the loss of the AC pumps and the failure of the DC pump to maintain adequate lube oil capacity, lube oil pressure and flow was lost immediately after the unit trip.

(ii) No, it is expected to start immediately. The second AC pump is powered from the Holyrood switchyard. As such, its power supply is external to the plant generation systems. Analysis has shown that this external power was available to the plant for approximately eight minutes after the unit trip, but at an extremely depressed level (due to the island wide power system issues that existed during the extreme weather event of January 11, 2013). The voltage level of the external power was sufficiently low to prevent the second AC pump from starting in response to the loss of the primary AC pump. The second pump was started via plant diesel generators three minutes after the unit trip.