

**Final Draft Report****ASSESSMENT SUMMARY****1.0 GENERAL DESCRIPTION**

Hydro One has replaced two end of life disconnect switches, T3-H and T4-A, at Orangeville TS. T4-A was replaced and in-service on May 24, 2008 and T3-H was replaced and in-service on May 30, 2008.

**2.0 MODIFICATION**

The technical specifications for the replacement disconnect switches are given below.

<b>T3-H and T4-A disconnect switches</b>		
	<b>Old Disconnect Switches</b>	<b>New Disconnect Switches</b>
<b>Configuration</b>	3 phase	3 phase
<b>Nominal Voltage</b>	230 kV	250 kV
<b>BIL</b>	not available	2000 kV
<b>Continuous Current Rating</b>	1200 A rms	2000 A rms
<b>Short Circuit Current Rating</b>	not available	100 kA peak
<b>Manufacturer</b>	ITE	SS
<b>Serial Number</b>	not available	not available

The replacement disconnect switches are operating in their original configuration and location as shown in figure 1.

**3.0 ASSESSMENT**

The new disconnect switches meet the market rules with respect to maximum continuous voltage. Appendix 4.1 reference 2 states that equipment on the 230 kV grid may be exposed to voltages as high as 250 kV.

**4.0 CONCLUSIONS**

It can be concluded that these replacement disconnect switches represent like-for-like replacements of existing equipment and have no material adverse effect on the IESO-controlled grid.

**5.0 REQUIREMENTS**

The Market rules (Chapter 4 section 7.4) require that each transmitter connected to the IESO-controlled grid shall provide the IESO on a continual basis with on-line monitored status as specified in Appendix 4.16.

As specified in Appendix 4.1 of the market rules, the IESO requires that connection equipment meets the voltage requirements outlined in Table 1 above. Some recognized contingencies (e.g. load shedding, open line end) can cause temporary voltage increases above these maximum continuous voltages. Connection equipment must remain in service and not automatically trip for voltages up to 5% above the maximum continuous voltages for up to 30 minutes to allow the system to be re-dispatched to return voltages to their normal range. This reparation period will be as short as possible, but it will not take longer than 30 minutes.

**6.0 NOTIFICATION OF CONDITIONAL APPROVAL**

This expedited System Impact Assessment concludes that the replacement of these disconnect switches is not expected to have a material adverse effect on the IESO-controlled grid, provided that the requirements listed in section 5 are met.

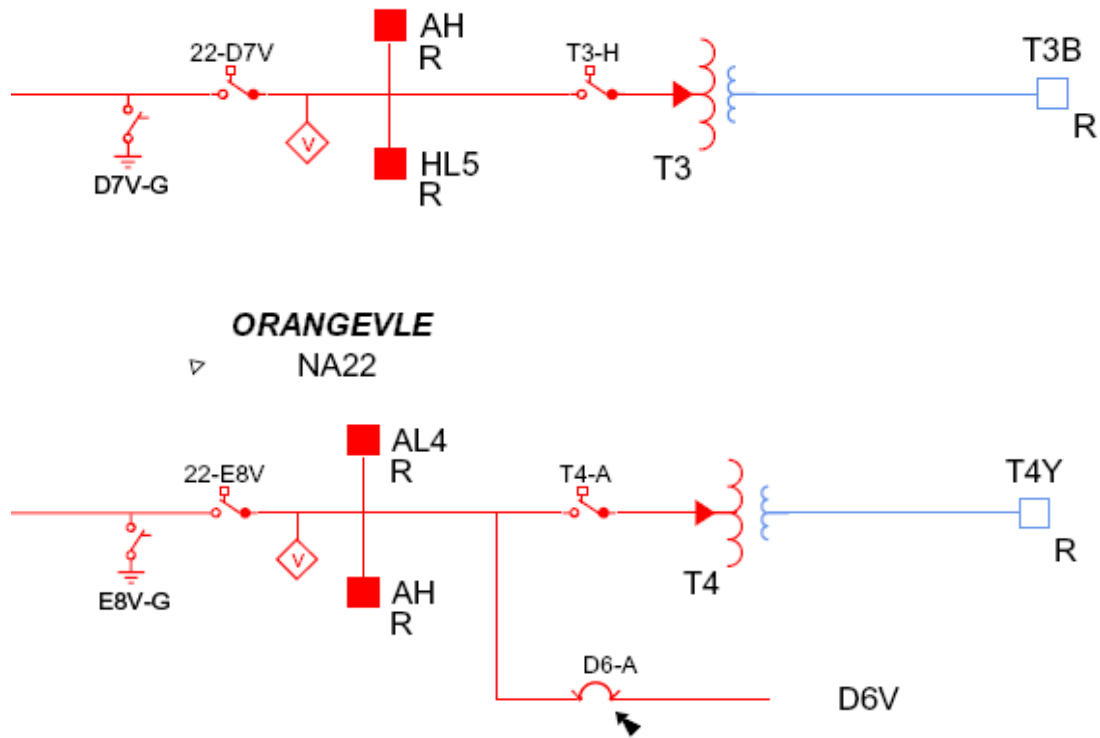


Figure 1: T3-H and T4-A Disconnect Switches