



CONNECTION ASSESSMENT & APPROVAL PROCESS

ASSESSMENT SUMMARY

Applicant: Hydro One Networks Inc.

*Project: Hearn TGS & SS
Segregation of Supplies*

CAA ID No. 2002-EX029

Long Term Forecasts & Assessments Department

Date: 10th May 2002

ASSESSMENT SUMMARY

HYDRO ONE NETWORKS Inc. **Segregation of Supplies**

1.0 GENERAL DESCRIPTION

With the recent lease of the OPG Powerhouse at Hearn TGS, Hydro One has initiated a plan to segregate and 'make safe' the existing power supplies. The first phase of the project is to immediately make the supply infrastructure within the powerhouse safe from the activities of the OPG tenant, and to insure the current services (a.c., d.c. and telecomm.) are reconfigured such that they supply Hydro One only.

The second phase of the project will relocate all the P&C, Telecomm. and d.c. system into new buildings in the 115kV switchyard. A separate approval request will be issued for this second phase.

a.c. Supply Services

The a.c. load at the 115kV switchyard and powerhouse is presently supplied from the four reserve station service transformers RSS1, RSS2, RSS3 & RSS4 that are located in the switchyard and from various voltage transformers located in the powerhouse.

The 2.3kV secondary from transformers RSS1 & RSS2, together with the 4.3kV secondary from transformers RSS3 & RSS4 are connected to step-down transformers located within the powerhouse. These transformers provide the present 600 volt supply to the powerhouse and the 115kV switchyard.

Hydro One is proposing to isolate the existing 2.3kV and 4.3kV connections from the RSS transformers that go to the powerhouse. Two new 500kVA 4.16kV/600 volt pad-mounted transformers, TSS3 & TSS4 are to be installed within the existing 115kV switchyard and the 4.16kV cables from transformers RSS3 & RSS4 are to be reterminated on to these two new transformers. This will then consolidate the Hydro One a.c. supplies within the 115kV switchyard.

Once the planned isolation of the 2.3kV cables from transformers RSS1 & RSS2 is complete, these transformers will become idle and will be removed in the next phase of this work.

d.c. Supply Services

The d.c. load at the 115kV switchyard and the control & relay rooms is presently supplied from two 125 volt batteries in two different locations within the powerhouse. Each battery is equipped with its own charger.

Battery DC2 is to be relocated to the relay room in the powerhouse so that it will be adjacent to the DC1 battery. The existing charger for DC1 is also to be replaced.

Two interim d.c. supplies for the 115kV switchyard and the control & relay rooms are to be established from the two batteries.

Telecommunications Circuits

The existing Bell Telephone and Hydro One telecommunications cables are terminated in the electrical room within the powerhouse. Some of these cables are routed through the 115kV switchyard while others are routed through the powerhouse.

Hydro One is proposing to install a new terminal board in the relay room within the powerhouse and to connect this via two new cables to the existing terminal board.

A new cable is to be installed from the new terminal board and the 115kV switchyard and this is to be spliced into the existing Hydro One cable at a convenient point along its route through the 115kV switchyard. This will then allow all the existing telecommunications cables within the powerhouse to be abandoned.

The scheduled completion date for all the preceding work (first phase) is 15th June 2002

2.0 ASSESSMENT

The proposed consolidation of the a.c. & d.c. supplies and the telecommunications facilities will improve the existing situation and have no adverse impact on the IMO-controlled grid.

3.0 NOTIFICATION OF APPROVAL

It is therefore recommended that a Notification of Approval of the Connection Proposal be issued.