



CONNECTION ASSESSMENT & APPROVAL PROCESS

ASSESSMENT SUMMARY

Applicant: Abitibi Consolidated Inc.

*Project: Sturgeon Falls GS:
Replacement of Step-up Transformers*

CAA ID No. 2002-EX203

***Long Term Forecasts & Assessments Department
Consistent Information Set Department***

Date: 16th July 2004

ASSESSMENT SUMMARY

ABITIBI CONSOLIDATED Inc.

Sturgeon Falls GS: Replacement of Generator Step-up Transformers

1. Introduction

The Sturgeon Generating Station in north-western Ontario is equipped with three, single-phase water-cooled transformers, each rated at 2.7MVA. A fourth, single-phase unit is available as a replacement in the event that one of the operational units should fail. All four units are located inside the powerhouse.

These transformers were installed in 1926 as original equipment and are showing signs of deterioration. In addition, there is no spill containment facility within the existing powerhouse.

Abitibi Consolidated Inc. is proposing to replace the existing single-phase units with a new three-phase transformer rated at 10/13.3MVA. The new transformer and its associated 115kV switchgear is to be located adjacent to the existing powerhouse and away from the banks of the Seine River. An identical three-phase transformer is to be located on an adjacent plinth for use as a spare. In addition, an oil containment structure is to be integrated into the new transformer plinths.

The scheduled in-service date for the new equipment is October 2005.

2. Connection Arrangement

Diagram 1 shows the proposed connection arrangement.

The existing 6.6kV switchgear and buswork is to remain unchanged. A new 6.6kV cable connection, consisting of twin 500mcm cables, is to be installed between the powerhouse wall bushings and the new transformer.

The transformer is to be connected to the 115kV circuit M1S to Moose Lake TS via two 115kV circuit-switchers and a motorised 115kV disconnect switch, all connected in series. Only one of the circuit-switchers is to be equipped with an integral disconnect switch.

Both circuit-switchers are to be operated simultaneously to isolate any transformer faults. In the event that they should both malfunction, the motorised disconnect switch would be opened automatically.

All of the 115kV equipment is to be suitable for continuous operation at a voltage of 132kV as specified in Reference 2 of Appendix 4.1 of the Market Rules.

No changes are to be made to the existing protection for either the transformer or the 115kV circuit, M1S.

A new Differential Protection Scheme is to be installed on the 6.6kV busbar at the GS.

3. Assessment

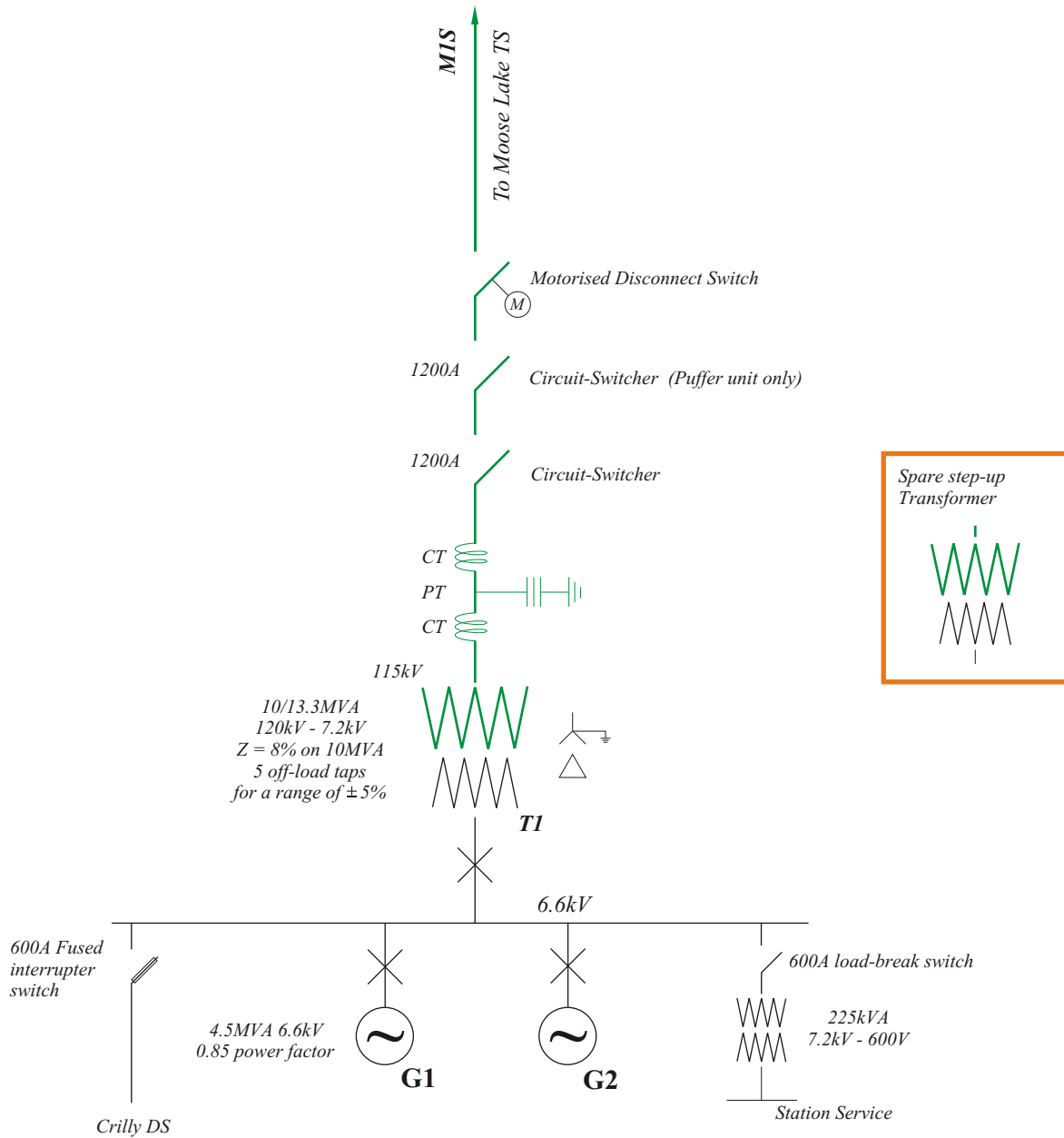
Since the 120/7.2kV turns-ratio of the new transformer will be identical to that of the existing 110/6.6kV single-phase transformers, it is therefore expected that the installation of the new transformer should not result in any material change to the operation of the system.

The IMO has concluded that the installation of the new step-up transformer, together with the installation of the two 115kV circuit-switchers and the 115kV motorised disconnect switch, can therefore be classified as a 'like-for-like' replacement of existing facilities.

Consequently, a formal Connection Assessment Study is not warranted.

4. Notification Of Approval

It is therefore recommended that, subject to satisfactory completion of the IMO Facility Registration process, a conditional Notification of Approval should be issued for the proposed modifications to the existing connection at Sturgeon Falls GS.



STURGEON FALLS GS

DIAGRAM 1

14th July 2004