

SNC-Lavalin O&M

High Pressure Steam Boilers

Ottawa

Project Statistics

Area description:	Provide two new high pressure steam boilers
Plant size	1,200 hp
Project budget	\$775,000

Responsibilities

Replacement of two ageing boilers with new ones of similar size with increased efficiency and plant automation.

Services Provided

- ▣ *Prime Consultant*
- ▣ *Mechanical design*
- ▣ *Electrical design*
- ▣ *Project commissioning*

Project Objectives

Replace two of the four high pressure steam boilers and correct a number of plant deficiencies that severely limited the operation of the steam plant.

Provide automation of the central plant that allowed automated changeover between machines in the event of demand fluctuations and equipment shutdowns.

Challenges

Because the plant was to remain in operation throughout the year, a detailed plan of implementation was developed with the client.

This plan included modifying and relocating a steam header to allow just one boiler to function during the summer, pre-purchasing of steam boilers and systems, and the careful planning of short duration shut-downs.



Solutions and Successes

- ▣ The existing single flue system had never operated correctly despite numerous attempts to correct its draft problems. Miriton designed a solution and an implementation strategy for the flue replacement and reconfiguration that permitted the boilers to finally meet their rated outputs.
- ▣ A detailed controls strategy was developed and refined in consultation with the operators and manufactures. The control system now gives the operators fully automated control where none had existed before.
- ▣ The design and installation of the new boiler system, the new chimney system and a central boiler control system were all carried out in time for the heating season and operate successfully without limitation.