

Darlington U4 Turbine Maintenance

CLIENT

Ontario Power Generation

LOCATION

Darlington, Ontario

Project Description

Part of the Darlington cyclical maintenance program includes turbine and generator maintenance and inspections to ensure the integrity of critical plant equipment, as well as extend the expected life of the equipment.

Scheduled maintenance on each of the Darlington unit's turbines and generators are completed as part of a unit shutdown on a rotating basis and serve to satisfy station commitments made to the Canadian Nuclear Safety Commission (CNSC) to maintain the station's operating license.

B&M Scope of Work

Black & McDonald's (B&M) scope of work for the turbine outage was the removal, cleaning and reassembly of major and minor components of the Unit 4 Steam Turbine and Generator. Turbine components included low pressure turbine stages 1 and 3 consisting of all major blade carriers and over 800 carrier studs. Generator components included hydrogen seals, diffusers and generator end doors. Additional components and equipment included are high pressure stop valves, motor control valves, steam chests and six shaft bearings. The scope also included component replacements and repairs for supporting systems such as lube oil, seal oil, stator cooling water, moisture separators and reheaters, and the condenser hot wells.

Additionally, during execution of the maintenance program, B&M owned all confined space monitoring and Foreign Material Exclusion for the project including during the inspections phase to maintain both worker safety and integrity of the critical components.

