

# Bruce Power Nuclear Generating Station A Unit 1 & 2 Restart Project

## CLIENT

Bruce Power

## LOCATION

Tiverton, Ontario

## Project Description

Situated on the shore of Lake Huron, Bruce Power provides nuclear power to one in three homes, hospitals, schools and businesses in Ontario, and medical isotopes around the world to keep medical equipment sterilized and assist in fighting disease.

Black & McDonald was responsible for the complete re-commissioning of the relay protection for the MOT transformer, UST transformer, bus, line differential, breaker fail, SCADA and transfer trip between Bruce & HONI for Units 1 and 2. When Bruce Power needed to revamp this key part of power generating infrastructure, it called on B&M's electrical engineering professionals to deliver the job on time and on budget.

## B&M Scope of Work

Black & McDonald's Field Service Division was contracted to perform the following services. Commissioning and testing of the complete electrical system including:

- Review of the design drawings including CWDs, EWDs, relay logic, process loop drawings, re-lay settings
- Develop inspection test plans to comply with NERC and nuclear regulatory standards
- Develop and execute step-by-step procedures for testing activities
- Develop work plans, permits and isolation points list for plant operators
- Test and commission metering/protection transformers and associated transformer protection relays
- Point-to-point wire verification
- Testing and commissioning SCADA points for the entire plant
- Performing overall functional tests on entire Unit 1 & 2 electrical systems

## Benefits to Client or Problem(s) Solved

When Bruce Power had to rehabilitate an essential component of Ontario's power generation infrastructure, it called on Black & McDonald to provide the professionals and plan. The project was completed safely, on time and on budget.