SINGLE SOURCE CAPABILITY, RESPONSIBILITY, ACCOUNTABILITY.
In 1921, William J. McDonald and William R. Black formed Black & McDonald Limited, a partnership to engage in residential wiring. For over 95 years, Black & McDonald has remained a family-owned business with an uncompromising commitment to the founder’s principles of delivery as promised and fairness to all.

The company has followed a planned course of diversification and expansion, combining growth and financial stability with ongoing investment in our people, and a willingness to pioneer new business opportunities.

Black & McDonald has established itself as a true leader in nuclear construction and services. From projects with specific scopes to master services agreements, we provide multi-trade, single source capability backed by a clear mandate for responsibility and accountability. Our resources remain committed to our founders’ philosophy to “do the job right . . . regardless”.

Our nuclear power generation specialists understand and embrace the unique challenges of working in nuclear facilities and continuously strive to exceed client expectations. In addition to our providing highly trained and experienced managers and trades people, our professional approach utilizes finely honed business processes and operating systems and leverages a national purchasing strategy. It allows us to provide outstanding quality workmanship at a fair price while keeping our project resources focused and synergized to complete projects on time and on budget.

When there’s Zero Tolerance for error, nuclear operators look to Black & McDonald to ensure Best Practices are utilized for Safety, Quality, Human Performance and Production. With over 17.7 million labour hours of nuclear work experience, we have a proven track record for customer success.
At Black & McDonald, our well established nuclear safety culture maintains a clear priority for human safety over schedule, cost, and production. Our experienced supervisors, managers, and trades people understand the responsibility that comes with working in a nuclear environment. We are committed to rigorous adherence to our safety and management systems which promote: leader and individual accountability, full and accurate communication, continuous improvement through problem identification and resolution, conservative decision-making, and a safe environment for raising concerns.

We have successfully performed outage work at the Pickering Nuclear Generating Station since 2003 and Darlington Nuclear Generating Station since 2005 and been awarded multiple Outage Cups at both stations for Boiler Open/Close Campaigns, PULSW Valve Replacements, Fuel Machine Modifications, and more.

We have achieved the Certificate of Recognition (COR) in all provinces of Canada in which the program is in place.
CORPORATE COMMITMENT

Many of our operations present potential risks to people and the environment, and we believe the most effective way to meet our commitment is through a competent, committed workforce and practices designed to ensure the resultant risk is effectively managed proactively. Black & McDonald believes that all incidents can be prevented and the goal of zero incidents is achievable.

Quality

Successful quality programs have been implemented since 1978 on Black & McDonald projects in mechanical, electrical, instrumentation, utility and civil applications meeting applicable project-specific standards of CSA, ASME, ISO, federal, provincial, and corporate requirements, and the following standards:

- CSA N286-05/12, Management System Requirements for Nuclear Power Plants (for Engineering, Procurement and Construction)
- CSA Z299.1, Quality Assurance Programs - Category 1
- CSA N285.0, Class 1,2,3,4, & Class 6 (Fabrication, Installation, Repair, Modification of code items and supports)
- CSA B51 (ASME Section 1, Section VIII, B31.1, B31.3, B31.5, B31.9)
- CSA W47.1, Division 2, Certification of Companies for Fusion Welding of Steel
- CSA W47.2, Division 2.1 Certification of Companies for Fusion Welding of Aluminum
- ISO 9001-2008, Quality Management System – Requirements

QUALITY PROGRAM REGISTRATIONS:

- CSA N285.0 & B51 Programs registered in the Provinces of ON, QC, and NB
- CSA W47.1/W47.2 Welding operations registered with the Canadian Welding Bureau
NUCLEAR EMPLOYEES TRAINED AND EXPERIENCED.
Human Performance/Training

Black & McDonald has trained and experienced nuclear employees with extensive knowledge, strong skill sets, and proven leadership capabilities. Our comprehensive network of training programs, policies, and practices ensure our committed workforce is well versed in the latest industry best-practices.

Black & McDonald is a proactive, self-critical organization with an established Human Performance program designed to promote high standards of work execution. We strongly encourage employees to report events in our industry-leading action-tracking and reporting systems and conduct management reviews to ensure corrective actions are taken to prevent recurrences.

In 2016, the company partnered with clients and vendors to develop and deliver a critically acclaimed supervisor development program to reinforce nuclear standards and safety culture.

Environmental Responsibility

At Black & McDonald, environmental responsibility is much more than compliance with legislation or participation in renewable energy projects. True responsibility is demonstrated by proactive efforts to minimize the environmental impacts caused by the activities of our organization.

The impacts of our environmental initiatives are real and quantifiable and while there is no immediate payback, Black & McDonald views the investment in these initiatives as a cost of being a socially responsible member of the Canadian nuclear and construction industries.
Outage Services and Refurbishment Experience

Black & McDonald has demonstrated excellence in our ability to staff, plan, and execute turnovers, outages, and refurbishment scopes of work at nearly every nuclear power plant across Canada.

Examples include:
- Bleed Condenser Open / Close
- Boiler Open / Close
- Boiler Waterlancing Support
- Temporary Power / Lighting
- Outage Asbestos Abatement
- Welding Support
- Jig Saw / Vault Repairs
- IMS Support
- High Pressure Service Water
- RTD Trunk Cable Replacement
- Valve Replacement / Repair
- Condenser Expansion Joint Inspection and Replacement
- Fuel Handling / Fuelling Machine Repairs and Modifications
- Heat Exchanger Inspection and Repairs
- Condenser Cooling Water Pump Overhaul
- PULSW Pipe Replacement
- Cyclical Valve Maintenance
- LPSW and CCW Travelling Screen Replacement
- End Shield Cooling Piping Modification (STOP)
- Boiler Blow Down Piping Replacement

MECHANICAL

From full system replacements to mechanical modifications and refurbishment scopes of work:
- System Equipment Modifications and Installations
- Piping, Pipe Supports, Valves
- Hoisting, Rigging

EXCEEDING CUSTOMER EXPECTATIONS.
ELECTRICAL

From high voltage transformers and electrical systems to testing and modifications of cable, tray, and conduit installations, Black & McDonald’s trained and highly skilled trades and supervisors get the job done right every time.

- Power System Assessment and Upgrades
- System Equipment Removal and Installation
- Transformer / Switchgear / Breaker / Motor Replacements
- Fire Detection Installation
- Substation Modifications / Installations
- Generating Station Modifications
- Relay Protection Upgrades
- Lighting Installations / Retrofits
- Electrical Grounding
- Commercial / Industrial Building Electrical
- Code Compliance
- Instrumentation and Control

CIVIL

Fully trained workforce for all civil, structural, and architectural needs:

- Scaffolding
- Earthworks, Concrete
- Excavations, Foundations, Site Improvements
- New Buildings and Renovations
- Substations
- Construction Management

MAINTENANCE

Black & McDonald upholds its ability to complete high quality maintenance on critical plant systems while meeting expectations for safety, quality, cost, and schedule. Our maintenance programs are tailored to meet the needs of our clients and support their equipment reliability programs. Our flexibility and ability to respond ensure consistent outage results, allowing clients to lower and stabilize operating costs, increase productivity, and improve plant reliability.
Engineering & Design Services

Black & McDonald has teaming agreements in place and the ability to provide full Engineering Services in partnership with this team. Our Engineering team utilizes the latest industry practices and BIM modelling software to create virtual 3D models for our diverse clientele before committing to a solution. This helps reduce costs and time before construction even starts and ensures that our clients’ needs are satisfied.

We provide our customers with:

- Engineering support for fabrication and projects
- Detailed fabrication drawings
- Modular engineering
- Development of standardized products
- Materials obsolescence program
- Creation of a standard product methods catalogue

Procurement

Our comprehensive Quality Assurance program allows full procurement capability for nuclear and conventional materials in all code classifications. This, combined with our experienced Engineer-Procure-Construct staff and “best in class” materials management and inventory control, saves our customers time and money, and offers:

- Purchasing of material and services for nuclear and conventional requirements
- Development of purchasing specifications to meet code requirements
- Traceability assurance and configuration management
- Inventory storage, coordinated warehousing aligned to material quality level and code requirements
- Material staging and just-in-time delivery by work package aligned with client schedule requirements
- Materials obsolescence program
Construction

Our experience includes over 17.7 million labour hours of nuclear construction projects, modifications, fabrication, outage, and maintenance services at nuclear power generating plants across Canada.

- Steam Generator services, e.g. boiler open-close, waterlancing
- Construction and tie-in of large stand-by Auxiliary Power Systems
- Design, fabrication and installation of Calandria Vault mock-up
- Removal and replacement of RSW / RCW valves and piping
- Refurbishment of pressure boundary systems
- Supply and installation of new construction change room facilities
- Feeder chafing shield modifications
- Site security optimization
- Calandria Vault seal rehabilitation
- EQ cable and component retrofit
- Air Lock EQ enhancements
- Condenser tube bundle replacements
- Condenser tube cleaning system installation
- Primary Heat Transport System modifications
- HPSW and LPSW pump and piping installation
- Heat exchanger cleaning and replacements
- Heating, ventilation, air conditioning system installations
- RTD cable replacements, including penetrations
- Screenhouse rebuild and modifications
- Fuel Handling and Fuelling Machine repairs and modifications
- Single fuel channel replacement
- Fire protection modifications / upgrades
- Class 1 – 4 Electrical Power System revamp
- CCW Pump overhauls
- Temporary power and lighting
- Valve replacement and repair
- Installation of moderator level pots
- and more . . .

FOR CLIENTS WHO DEMAND REAL TURNKEY RESULTS.
There's only one way at Black & McDonald. The right way.

Black & McDonald is a privately-owned Canadian company that provides an integrated, multi-trade prime contracting service to governments, institutions, industry, and commerce throughout Canada, the United States and Bermuda. Founded in 1921, William John McDonald established a foundation of principles and beliefs that are the very core of the company:

- Do the job right... regardless
- Talk to the customers regularly, confirm their satisfaction
- Make the price fair and reasonable
- A deal is a good one, only when it is good for both parties
- Live up to your promises
- Treat employees with respect
- Complete jobs promptly
- Invoice promptly, fairly, and in detail

As a result, Black & McDonald is known as a reliable and flexible contractor. With a team of over 5,500 strong, Black & McDonald lives and breathes the ultimate in safety, quality and high performance along with engineering excellence, best of class fabrication, and unprecedented customer service. Delivering the right solution in the right way at the right price is driven by an ongoing attitude of unwavering integrity and proud tradition.

Everyone at Black & McDonald knows that continued success depends on the ability to deliver innovation and exceed client expectations. It continually rests on the shoulders of each and every member of the team.

Anything less is not the Black & McDonald way.

The Black & McDonald Way