

Nuclear Power Provider Welcomes Digital Transformation

Bruce Power demonstrates compliance, enforces procedures, and manages critical collaboration with OpenText™ Content Suite

Nuclear energy generation is an intense business—in assets, regulation, and critical infrastructure status. “The most important thing for us as a business model is to operate a safe environment and deliver the power we committed to deliver,” says Bruce Power Chief Information Officer Sarah Shortreed.

Critical Power and Communication

Bruce Power generates nearly one-third of Ontario’s power. To sustain safe delivery and comply with industry regulations, the energy provider relies on four critical applications that drive the business: asset, finance, content and project management. Every day, close to 4,000 Bruce Power professionals work within these systems planning multi-million dollar construction projects, checking equipment health, and much more. “Those systems interact all day long,” Shortreed says. “At the end of it, the information must be stored as corporate records, often for the life of the facility.”

Bruce Power runs eight CANDU (CANada Deuterium Uranium) reactors on the Lake Huron shoreline. Some plants were constructed in the 1960s and will be retrofitted to stay in service into the 2060s. “That’s a long time to keep digital files in a readable form that will last through all of the inspections and history of the plant,” Shortreed notes. “It’s an interesting challenge for us in terms of content.”

In addition to long-term storage, employees need reliable, convenient access to operation guidelines. Procedure adherence is a core performance factor, listed as such on tags hanging from every employee lanyard. “We need to execute work the same way every time and the same way no matter who is doing it,” Shortreed says.

Simply working in an industrial environment can complicate matters. The length of a turbine is equal to a couple of football fields and there are four turbines in a large building. “Distance starts to drive how you want the information to appear,” Shortreed relates. “You don’t want to forget a procedure document needed to perform your work on the other side of that ten-minute walk.”

INDUSTRY

Nuclear energy

CUSTOMER

Bruce Power

CHALLENGES

- *Rigorous regulation and procedure rules*
- *Expansive, asset-intensive industrial environment*
- *Communication among critical applications*
- *Long-term retention of readable, digital information*

SOLUTIONS

- *OpenText™ Content Suite Platform*
- *OpenText™ Brava!™*
- *OpenText™ WebReports*

BENEFITS

- *Audit trails ease proof of compliance, reducing risk*
- *Convenient access, reliable records enhance collaboration*
- *Single source of truth supports procedure adherence, worker safety*
- *Abundant data informs predictive maintenance for assets*
- *Digital transformation supports innovation*

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SARAH SHORTREED, CHIEF INFORMATION OFFICER,
BRUCE POWER

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CIO Duties and Obligations

In her executive position at the nuclear plant, Shortreed accepts responsibility to ensure technology—including content management—supports enterprise priorities of security and innovation. “CIOs have a duty to be the conscience of the organization,” she says. “We have an obligation to procure and install highly secure, highly enterprise-grade products in our infrastructure.”

Furthermore, implementation and management requirements must match company resources. “I don’t have a team of 20 content management people; I have a team of two,” Shortreed relates. “We have to think about how to best leverage their skills.”

For both security and manageability, Shortreed and her team turned to OpenText, Canada’s largest software provider. “CIOs have to look out for technology trends and pick the right players,” she says. As a comprehensive, integrated platform, OpenText™ Content Suite helps organizations securely manage the entire lifecycle of information across the enterprise, from capture, classification, and management to storage, archival, and disposition. Shortreed continues: “I don’t think we can underestimate large, robust platforms like OpenText’s where a considerable investment has been made in the security of the product.”

Powerful Content Management

To support safe power delivery and encourage innovation at Bruce Power, the critical infrastructure provider is digitally transforming content management and other applications with OpenText Content Suite. In the highly regulated, asset-intensive environment of a nuclear power plant, Content Suite supports proof of compliance, procedure adherence, asset maintenance, and more.

Compliance

With Content Suite, Bruce Power easily shares files with partnership networks, including construction companies or government agencies such as the Canadian Nuclear Safety Commission (CNCS). “A big chunk of our communication is with regulators asking who did work, what they did, and how we can prove it,” Shortreed says. “It’s important that we maintain our records and make them available to regulators, employees, and staff members.” Content Suite enables implementation of standard policies governing how content is used and audit trails for demonstrating corporate compliance, minimizing the risk of costly fines or litigation.

Procedure Adherence

Consistent, convenient access to procedure documentation through Content Suite energizes Bruce Power’s mission to deliver reliable operations, according to Shortreed. “Procedure adherence is what allows us to maintain a safety and a performance culture that keeps our equipment in the highest performing order, as expected.”

Though a number of employees obtain information directly through Content Suite, staff members working in the field receive prepackaged procedural guidelines from an internal assessment group. Work orders viewed on a tablet appear with appropriate procedures already attached. The ready resource supports uniformity, efficiency, and certainty. “As we build work packages and equip our field staff, we’re constantly thinking about ways to improve efficiency, given the large scale of the site and also the number of checks and balances you go through working in a zoned nuclear environment,” Shortreed says. “We are looking for real-time information employees can use as decision-making devices.”

Asset Maintenance


“Protecting assets with proper physical and cyber security, and maintaining the life and health of those assets is somewhat unique to our industry and a big business driver for us,” Shortreed says. Bruce Power uses predictive maintenance techniques to ensure service continuity and control expenses. Content Suite supports predictive maintenance with abundant, reliable information. Shortreed explains, “The more data we have about predictive maintenance and health of the equipment, the better we can then design our maintenance programs and meet the needs of the corporation.”

Corporate Knowledge and Growth

Other records maintained in Content Suite support operation enhancement. For instance, records regarding station condition share observations in the field, including comparisons to standards and potential improvements. “We use those records as part of a learning organization to build our environment,” Shortreed says. “It’s useful to document the changes and why they came about so we can grow as a company.”

Digital Disruption and Transformation

Even highly regulated, traditional organizations are acting as digital disrupters—using innovative tools, methods, and platforms to alter service and how it is delivered, especially for today’s users with high digital expectations and acceptance. “Bruce Power is in the process of installing disruptive technologies,” Shortreed says. “That means we need to free up money.” She offers advice for other organizations on the digital disrupter path: Think of information technology as a small business. “You have to say, ‘If I’m investing in my business, what am I going to divest and what am I going to invest in?’ That’s how you make the time, technology, and the money that allows you to make a digital transformation,” she says.



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She also credits OpenText with transformation assistance. “We’ve found in our relationship with OpenText that we’ve been able to get support, training, and learn a lot of lessons about how to do the installs.” Together, they are executing Bruce Power’s content strategy. “With OpenText, I have a secure, stable platform ... For our innovation roadmap, it’s a really strong starting point.” She continues, “And, we’re not investing in new technology that we’ve never heard of before. We’re saying, ‘How can we start from that and give our clients something they never even thought they needed before?’”