



Powering THE FUTURE

POINT LEPREAU REFURBISHMENT

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The project team is hard at work planning for the Refurbishment Outage, which is now only eight months away. The following activities are currently taking place:

- A series of implementation workshops and discussions are underway between NB Power Nuclear and AECL to ensure that everyone has a common understanding of the interface roles and responsibilities.
- Documentation to reflect the current status of the project, including AECL's Quality Assurance Manual, NB Power Nuclear's Project Execution Plan and Quality Assurance Plan have been revised to reflect the current status of the project.
- Detailed schedule planning for the integration of NB Power Nuclear's operation and maintenance and capital work is on-going.
- Discussions with the Canadian Nuclear Safety Commission (CNSC) continue. A project update will be presented to the CNSC at the fall 2007 public hearing.
- Integration testing of the retube tooling is underway at the manufacturer. Once completed, the retube tooling will be transferred to the AECL Saint John office in fall 2007.
- Procurement of key refurbishment materials is underway including manufacturing qualification.

From left: Mike Goddard, Electrician with O'Brien Electric Co. Ltd., Gord Campbell, Construction Project Lead with NB Power Nuclear, Bob Shonaman, Electrician Foreman with Sunny Corner Enterprises and Peter Scovil, Electrical Apprentice with NB Power Nuclear.



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Énergie NB Power

Nucléaire Nuclear



Employees occupied the new site office building at Point Lepreau Generating Station (PLGS) in May 2007. The building has three stories: the first floor consists of a cafeteria and utility rooms and the second and third floor is comprised of offices, 153 in total, and five meeting rooms. This is a significant milestone achieved on the road to refurbishment.

There are many other initiatives currently underway at PLGS to prepare for the refurbishment outage, including renovations of the Administration Building, on-going security enhancements and the expansion of the current parking lot.

For further information or updates, please visit the Powering the Future website at <http://poweringthefuture.nbpower.com>.

EMPLOYEE PROFILE: HOWARD CONSTABLE



Howard Constable joined the NB Power Nuclear team in March 2007 as Site Director for the Point Lepreau Generating Station Refurbishment Project. In December 2006, Bill Moulard held this role on a temporary basis and supported Howard in the transition process. He has since returned to his original role as Project Advisor.

Howard brings to this position over 20 years of experience in construction and managing large-scale projects. Most recently Howard was the National Construction Manager for Babcock and Wilcox. Other relevant experience in New Brunswick includes working with Irving Forestry Services (JD Irving) and NB Power Generation on the Coleson Cove Generating Station Refurbishment.

The success of any project is achieved through clear accountability and effective integration of all aspects of the project. Howard is a tremendous asset to the refurbishment team and will help realize the three station goals of safe and reliable operation, refurbishment on time and on budget and world-class performance.

Welcome to the Refurbishment team and back to New Brunswick!

CORPORATE PROFILE: SUNNY CORNER ENTERPRISES

Sunny Corner Enterprises, located in Miramichi New Brunswick, has a reason to be proud. Three years ago they realized the potential for work on the refurbishment of the Point Lepreau Nuclear Generating Station and last year implemented their Nuclear Quality Management system. They now have a CSA N286-05 and ASME III Class 1, 2, and 3 program, to compliment their ISO 9001:2000 program received in 1996, which is considered one of the most comprehensive in New Brunswick by the New Brunswick Department of Public Safety.

Sunny Corner Enterprises is the only company in New Brunswick to have the certifications in the nuclear industry that gives them the capability to procure, fabricate and install nuclear equipment and systems. Receiving this certification has enabled the company to expand their fabrication and construction divisions through contracts for the nuclear industry.

Sunny Corner was first awarded the Atomic Energy of Canada contract for the retube canister liner tubes as part of the Point Lepreau Generating Station Solid Radioactive



Retube canister liner tubes being installed at the Phase III development area of the Solid Radioactive Waste Management Facility



Waste Management Facility (SRWMF) project which they successfully completed in November 2006. They worked hand in hand with AECL's Construction, Quality Assurance and Order Administration departments to produce the end product that was integral to the waste management program.

"One of the key factors of success was Sunny Corners Enterprises Inc. participation with their manufacturing expertise in openly feeding back product improvements for constructability and process, and their serious commitment to focus on the due diligence requirements for quality control necessary for nuclear industry business," said Tom Beese, Project Manager for the SRWMF.

They have since been awarded two additional contracts with AECL for the refurbishment of Point Lepreau Generating Station, one for end fitting waste containers and one for pressure tube and calandria tube waste containers. They have also recently been awarded a general services contract with NB Power Nuclear and their employees are currently mobilizing to site.



NEW BRUNSWICK COMMUNITY COLLEGE GRADUATES STARTING NEW CAREERS WITH AECL

On Monday, July 9th, 2007, 14 New Brunswick Community College (NBCC) graduates began a new career with the Atomic Energy of Canada Limited (AECL) Point Lepreau Refurbishment Office in Saint John, New Brunswick. The newly hired technicians and technologists are starting a comprehensive training program on the processes, procedures and safety to support specialized tooling for the retubing and refurbishment of Point Lepreau Generating Station. There are now a total of 19 recent NBCC graduates employed at the AECL Saint John Office.



“With these new additions AECL’s Saint John office has now grown to 95 people since January 2006,” says AECL’s Manager of Project Support Marie Doherty. “Recruiting will continue later this year for additional technicians, technologists and administrative personnel.”

The New Brunswick Community College is registered with AECL as a local supplier of both labour and materials for the refurbishment project through a partnership agreement between NB Power and AECL. The agreement is already showing many spin-off benefits to the local economy.

“AECL is proud of its ongoing partnership with NB Power and of what we have accomplished together,” says AECL’s Director of the Point Lepreau Refurbishment Project Dave Scott. “Since the project began almost two years ago, we have awarded more than \$45 million in contracts to New Brunswick firms. We have also partnered with NBCC to promote the nuclear industry and introduce career opportunities for their engineering technology program students by establishing two scholarships for second year students.”

A number of additional programs have been established as a result of the AECL/NB Power Partnership. Students and instructors at NBCC Saint John developed a web-based Orange Badge Safety and Radiation Protection training program to enhance AECL’s training process; and a contract was signed with NBCC to design and fabricate feeder tube mock-up stations that will be used to develop procedures and train workers at AECL’s Saint John facilities.

“These joint business ventures are important in developing career opportunities for young New Brunswick men and women in a rapidly expanding industry both at home and worldwide,” says Tim Curry, President of the Atlantica Centre for Energy. “They are a key element in our strategy to position New Brunswick as an emerging nuclear centre of excellence, and in positioning Saint John, New Brunswick as the energy hub for the Atlantic region. New Brunswick has a well-established community of skilled workers and suppliers who are contributing to the successful completion of the Point Lepreau Refurbishment Project.”

REFURBISHMENT TIMELINE

December 2007
Mobilization of AECL construction staff

April 2008
Beginning of PLGS refurbishment outage

May 2008
Removal of reactor fuel and drainage of reactor systems

June 2008
Removal of reactor retube components

December 2008
Installation of reactor components

March 2009
NB Power Nuclear commissioning (non-retube activities)

June 2009
Loading of new fuel into the reactor

July 2009
Final NB Power Nuclear commissioning and PLGS start-up activities

October 2009
PLGS return to service

During the Refurbishment Project, regulatory approvals will be on-going, including public hearing activities.



For more information
on the Point Lepreau
Refurbishment Project
visit our website at
<http://poweringthefuture.nbpower.com>
or call our toll-free
project information line at
1-866-754-7727.



INNOVATIVE TOOLING FOR THE REFURBISHMENT PROJECT



Teamwork is a key component to the success of preparing the Point Lepreau Generating Station for its scheduled refurbishment in the spring of 2008.

Point Lepreau Generating Station, the East Coast's only nuclear power station, has been in operation since 1983. It will be the first CANDU 6 to undergo full refurbishment.

"To get a feel for the scope of the project, all 380 fuel channels and associated feeders will be removed and replaced," said Narinder Bains, AECL's Director of Reactor Systems. "To do this, we need to design and develop over fifty first-of-a-kind tools for fuel channel and calandria tube replacement. Three sets of tools are being developed that will be used directly in the removal, installation and inspection phases of Point Lepreau's Refurbishment Project."

Due to the number of engineered tools required, AECL brought in suppliers to work hand-in-hand with to design and to build the tools. Automation Tooling Systems (ATS) in Cambridge, Ontario was contracted to work closely with AECL to manufacture the tools. ATS specializes in automation systems and robotics for the automotive and pharmaceutical industries.

"The fact that we are working co-operatively with a supplier as a team is a huge component of this project," said Narinder. "AECL and ATS employees have been working seamlessly as one team. AECL brings nuclear scope to the project and ATS brings machine building expertise to the project."

ATS is working very closely with AECL engineers to design nuclear tooling on a very tight schedule. The project began in August 2005 and in less than 24 months the tools have been designed from concept to manufacture. The tooling delivery is ahead of schedule due to the unique relationship between AECL and ATS.

About 95 per cent of the manufacturing of the first set of tooling is complete. There are about 25 AECL and 25 ATS staff working together at the ATS facility in Cambridge, Ontario and they are currently working on integration testing to ensure that the tools perform well together.

The entire design and manufacturing of tools has to be built and delivered to the AECL Saint John facility by late 2007 for six months of training and testing. Refurbishment of Point Lepreau Generating Station's CANDU 6 will begin in the spring of 2008.



From left: NB Power Nuclear employees Brent Smith, Retube Superintendent, Denis Cormier, Retube Engineer and Pierre Michaud, Retube Engineer, at the ATS facility in Cambridge, Ontario.