

## point lepreau

## Point Lepreau Team Gearing Up for April Outage

AECL's Point Lepreau Refurbishment project is continuing to ramp up in anticipation of the April refurbishment outage, when retube work will begin on the Point Lepreau Generating Station CANDU 6 reactor.

"The anticipation is almost palpable," said Dave Scott, Regional Vice-President, CANDU 6 Refurbishments. "Our team is completely focused on the tasks needed to get us into the reactor core to begin the job of safely retubing the reactor. We're making good headway and we remain on schedule to meet this major milestone."

As of publication date, AECL's project team was continuing the procurement of key refurbishment materials. Manufacturing qualification on end fittings and calandria tubes has been progressing, while integration testing of the retube tooling is almost complete at the manufacturer's warehouse.



AECL staff, Saint John office

Retube tooling is being packaged and shipped to AECL's Saint John office where the mockups and tooling is set up for detailed training of the retube staff.

Key New Brunswick suppliers have been busy contributing to the on-schedule production of mockups and tools. For example, ATCON Industrial Services of Miramichi, New Brunswick delivered seven mock-up assemblies to AECL in 2006 and, at time of publication, a second order for an additional assembly was expected to arrive at the Saint John training facility in late February.

Refurbishment project engineering, construction and commissioning teams are working closely together to achieve the most effective outage organization. Preparation of the site infrastructure for the project implementation is in progress, including parking, construction trailers and site access improvements.

Preparation of the detailed outage plan to include activities by all contractors is also continuing to be refined by the AECL and New Brunswick Power planning team.

Cutting-edge technology and training are being incorporated in the areas of project delivery, retube series, tooling, safety and employee orientation. The training brings together teams of engineers, technicians and various trades involved in the reactor retube operations and includes conventional and radiological safety practices in support of refurbishment or replacement of various



AECL Board of Director Barbara Trenholm watches as Eric Levesque (left) and Mike Briggs (centre) demonstrate how a handheld control is used to move the bridge platform.

reactor components.

"The experience acquired in the development of training for Point Lepreau will be applied by AECL to support the refurbishment of other CANDU 6 reactors in South Korea and other contracts being negotiated," said Dave. "The AECL Saint John office will be the staging area for carrying out a vital training role leading to the successful retube of these reactors."

The upcoming refurbishment outage will be the first refurbishment of a CANDU 6 reactor in the world and will extend the life of the station by approximately an additional 30 years.

## bruce

## Bruce Retube Two-Reactor Disassembly Progressing

AECL's Bruce Retube team is continuing its task of removing and compacting pressure tubes from the Unit 2 reactor, with a goal of completing the work series by early March.

At time of publication, more than 222 of the 480 tubes had been removed, crushed into two-inch coupons by the Volume Reduction System (VRS) and placed in pressure tube waste containers for disposal at Ontario Power Generation's onsite waste storage facility.

The team had earlier experienced some challenges with the press on the VRS, which was changed out after it

failed to properly engage. Several changes to software, hardware and alignment have been made to the VRS to improve performance.

Calandria tube insert release work will be the next critical path series in the Unit 2 vault. This remote series will use induction heating to release the 960 calandria tube inserts from the rolled joint connections between the calandria tubes and calandria tube tubesheets. Production work is set to begin in early March.

Meanwhile, in Unit 1, feeder tube removal is progressing with lower segments from more than 500 of the 960

feeder tubes cut and removed from the ends of the reactor.

Feeder tubes are used to transfer heavy water coolant to and from the reactor's pressure tubes. During the current work series - the third major component removal series - lower segments of the vertical and horizontal feeder tubes are cut and removed to clear the area around the east and west sides of the reactor for subsequent removal and installation activities.

This Unit 1 series work began in mid-November and is to be completed in March. Once the worktable has been installed, the next series of work will involve pressure tube severing.



A group of Retube Control Centre (RCC) and Retubing Tool Carrier operators working at the East Human Machine Interface workstations in the RCC.



A Retubing Tool Carrier operator remotely transports a loaded transfer can from the receive pallet at the east face to the volume reduction system equipment on the vault floor.



Retube Control Centre Operator Jeff Young observes a close-up of the transfer can inserted into the lattice tube guide sleeve in advance of receiving the pressure tube.