

Point Lepreau Nuclear Generating Station

INFORMATION SHEET: Instrumentation line outage 2026

SUMMARY

- Point Lepreau was safely taken offline on September 11, 2026, after monitoring identified elevated tritium levels inside the reactor building.
- The source was confirmed as a small instrumentation line that is part of the Primary Heat Transport System.
- The issue was contained inside the reactor building, with no risk to the public, workers or the environment.
- The repair is complete, and the unit will return to service once required testing and safety checks are complete.

BACKGROUND & CURRENT STATUS

What happened?

The Point Lepreau Nuclear Generating Station was safely taken offline on September 11, 2026, to investigate the detection of a heavy water leak contained inside the reactor building. There was no risk to the public, employees, or the environment.

Specialized monitoring equipment provided immediate notification to Operations that there was the potential of a heavy water leak. The initial indication was elevated tritium levels contained within the reactor building. At this stage, teams knew there was an issue requiring investigation, but the source had not yet been confirmed.

Taking the station offline was necessary to allow workers to safely access the area, confirm the source of the issue and progress the repair strategy.

What was the source of the issue?

After investigation, we confirmed that there was a heavy water leak coming from a small instrumentation line (3/8 inch) connected to the heat transport system contained inside the reactor building. The instrumentation line was chafing against structural steel which resulted in a leak.

What actions were taken to address the leak?

Temporary leak repairs and mitigation measures were put in place, and the leak did not present a hazard to workers, public or the environment. The heavy water from the leak was collected, recirculated and contained inside the reactor building as per station design and configuration.

Permanent repairs to the instrumentation line are now complete.

When will PLNGS return to service?

The return to service could take several days as per process and protocol. The unit will only return to service once the necessary work and safety requirements have been satisfied.

What does this mean for customers?

NB Power is coordinating across its generation fleet to continue providing reliable electricity service to customers while Point Lepreau remains offline.

Customers can continue to expect safe and reliable electricity service as repair work progresses.

What will this cost?

It is too early to determine the final cost of the repair work. Any costs associated with the outage will be managed through NB Power's normal financial and regulatory processes. Our priority is safely completing the repair and returning the station to service.

TECHNICAL BACKGROUND

How was the issue identified?

On September 10, 2026, station monitoring systems detected a fluctuation in tritium levels inside the reactor building. While fluctuations are expected during start-up activities following an outage, the levels continued to increase the next day indicating that further investigation was required. At that time, the source of the issue had not been confirmed.

After the station was taken offline and teams were able to safely access and inspect equipment inside the reactor building, the source was identified as a small instrumentation line that is part of the Primary Heat Transport System.

What is the affected system?

The instrumentation line is part of the Primary Heat Transport System at Point Lepreau. The system carries heated heavy water from the reactor to the steam generators, where the heat creates steam. The steam turns the turbines, which drive the generators to produce electricity.

The line is located within the reactor building, which is a controlled area of the generating station designed to safely contain plant systems and materials.

➔ **September 10:** Station monitoring systems detected fluctuations in tritium levels inside the reactor building. There was no risk to the public, employees, or the environment.

➔ **September 11:** The station was safely taken offline to support further investigation of increased tritium and allow access to the affected area.

➔ **September 12-14:** Inspection teams entered the reactor building and completed detailed investigations.

➔ **September 14:** The source of the issue was confirmed as a damaged instrumentation line that is part of the Primary Heat Transport System. A temporary leak mitigation device was installed.

➔ **September 14-21:** Teams developed a permanent repair strategy and carried out the work required to complete the repair.

➔ **Present:** Teams are conducting testing and verification activities as well as safety, technical, and operational reviews needed to prepare the station to return to service.

Is heavy water involved?

Yes. Point Lepreau uses heavy water as part of the station's normal reactor operation. Heavy water plays an important role in the CANDU reactor design, helping sustain the nuclear reaction and transfer heat for electricity generation.

Heavy water is routinely used and managed within the station under strict operating procedures and regulatory requirements.

What is heavy water?

Heavy water is an essential part of the CANDU reactor system, and the heavy water used at Point Lepreau contains tritium, a radioactive form of hydrogen that is normally produced during the normal operation of CANDU reactors.

The presence of tritium in heavy water is expected, well understood and carefully managed under strict operating procedures and regulatory requirements. The heavy water leak was contained within the reactor building.

Has any radioactive material been released to the environment?

No. Approximately 200 litres of heavy water was contained and collected within the reactor building as designed. There was no release to the environment and no risk to the public or employees.



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