



Decommissioning of Nuclear Power Plants

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The Canadian Nuclear Safety Commission (CNSC) regulates the entire life-cycle of nuclear power plants. Decommissioning activities are the actions taken by a licensee at the end of the useful life of the reactor. The decision to stop operating and to decommission is taken solely by the licensee. The CNSC's role is to ensure that decommissioning activities are carried out in accordance with CNSC regulatory requirements to ensure protection of the workers, the public and the environment, and to implement Canada's international commitments. Plans related to the decommissioning of nuclear power plants take, on average, 50 years to complete.

Planning for decommissioning

As a requirement for obtaining a licence to operate a nuclear power plant, the operator must submit a decommissioning plan, outlining how it plans to manage the dismantling of the power plant. A financial guarantee, which is based on the plan, is used by CNSC staff to evaluate how the operator will guarantee financing for decommissioning activities. Under a normal operating licence, the operator can place the nuclear facility into safe storage, if it so wishes, as an initial step to decommissioning.

Preparation for decommissioning

Once the operator submits a licence application to carry out decommissioning activities, it will be evaluated to determine if an environmental assessment (EA) under the *Canadian Environmental Assessment Act* is required. An EA will determine if there are any significant effects on human health and the environment. Along with the licensing process under the *Nuclear Safety and Control Act*, this will ensure any decommissioning activities are carried out safely to ensure the protection of the workers, the public and the environment.

If the environmental assessment is approved, the CNSC can then consider the operator's licence application for decommissioning.

Did you know?

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The hearing process for the environmental assessment and issuance of the decommissioning licence will offer opportunities for public input.

Decommissioning activities

Once the decommissioning licence is approved by the CNSC, implementation of the decommissioning plan can begin. Activities in this phase include the decontamination and dismantling of the facility.

Completion of decommissioning

This phase includes the verification that all decommissioning activities have been completed satisfactorily, as well as all documentation. This would also involve the issuance by the CNSC of a Licence to Abandon, in accordance with the *Nuclear Safety and Control Act*.

Strict Compliance and Enforcement

As with any licensed facility or activity, the CNSC monitors decommissioning activities against 14 separate safety and control areas. A dedicated team of experts and inspectors carry out inspections to monitor compliance. Cases of non-compliance are reviewed and actions taken swiftly to enforce regulations.

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