

SITE C CLEAN ENERGY PROJECT

DAM SAFETY

Safety is a key consideration in the project design for the Site C Clean Energy Project. BC Hydro's dam safety program for all its facilities is rigorous and is based on provincial regulations, guidelines published by the Canadian Dam Association and international best practice.

Site C will be constructed and maintained in accordance with international and Canadian safety practices to withstand major events, including unlikely extreme earthquakes and floods.

The Site C design takes into account the full range of earthquake magnitudes that are considered possible in the Peace

River region, including low-probability scenarios with larger earthquake magnitudes than the highest magnitude event on record in the Peace.



The project is designed to the highest recommendations of the Canadian Dam Association. Safety features include a long concrete buttress under the dam, generating station, spillways and ancillary structures to improve foundation stability and seismic protection. In addition, an overflow auxiliary spillway enhances safety so that even if the plant loses all power, it can safely pass the upstream flows.

In keeping with international best practice, Site C's project design has been informed by advice and feedback from external Technical Advisory Board members, who are globally recognized for their technical knowledge and experience with hydroelectric projects around the world.

Report of the Joint Review Panel

On May 1, 2014, the Joint Review Panel submitted its report on Site C to the federal and provincial governments, as part of the independent environmental assessment process.

The Panel noted that: *"BC Hydro is an experienced dam owner with an excellent record for dam safety and compliance" (page 253), and that "Risks and associated environmental effects due to potential accidents and malfunctions have been appropriately mitigated by BC Hydro through project design and planned project management" (Executive Summary).*

On earthquake risk, the Panel stated that: *"The Panel accepts that BC Hydro appropriately characterized the seismic hazard risk in the project area and notes that such risk is low" (page 248).*