



Four AECL-designed CANDU 6s at the Wolsong site, Korea. Wolsong 1 was the top-performing reactor in the world in 1997.

extensive experience in the design, construction and safe operation of both research reactors and CANDU power reactors worldwide.

The CNF reactor assembly is located at the bottom of a 15.6-metre-deep, light-water-filled pool. The compact light-water-cooled and -moderated core uses low-enriched uranium fuel, consistent with international nuclear non-proliferation guidelines. This rod-type fuel generates a flux of fast neutrons in the core and a high thermal neutron flux that extends into the surrounding heavy water reflector tank. The maximum unperturbed thermal-neutron flux is 4×10^{18} neutrons \cdot m⁻² \cdot s⁻¹.

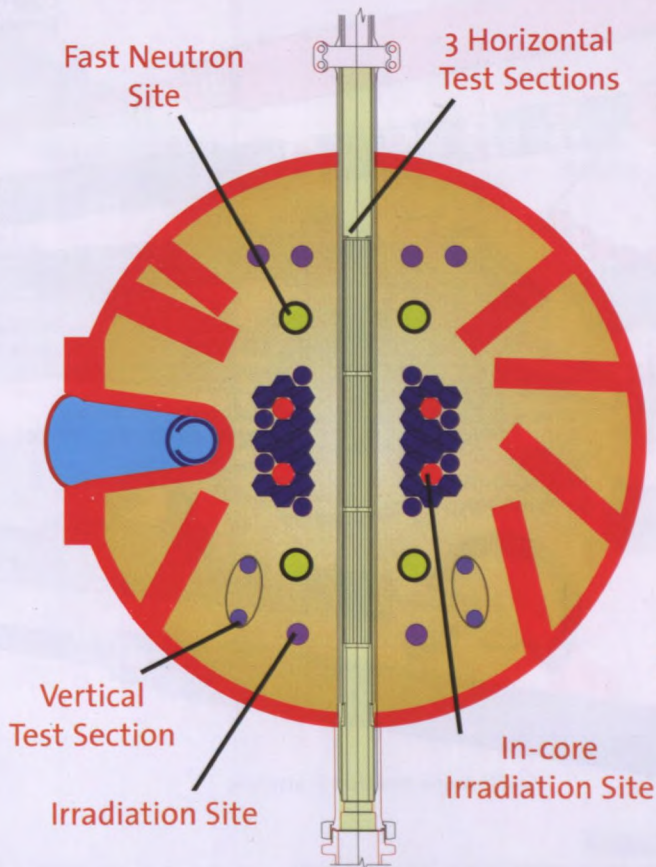
The CNF reactor will house a national user facility, including a cold source and guide hall for neutron beam research, and test facilities for CANDU fuels, fuel channels, materials and components.

Operating the CNF as a National Facility

All stakeholders will be invited to provide input to secure a consensus on a management structure for the CNF. This will ensure equitable access to all users.

The CNF MAPLE Advantage

- state-of-the-art Canadian technology
- high neutron fluxes per unit power
- low fuel costs
- two independent shut-down systems
- passive pool, ensuring reactor cooling
- containment building designed to accommodate extreme events
- designed for ease of operation and maintenance
- modest staffing requirements



Plan view of CNF MAPLE core showing CANDU test facilities.