

CANADIAN NUCLEAR REACTORS IN OPERATION, UNDER CONSTRUCTION OR UNDER DETAILED DESIGN

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SCIENTIFIC AND INDUSTRIAL RESEARCH

Name	Location	Date of Start-up	Power	Fuel	Moderator	Coolant	Use
Zero Energy Experimental Pile (ZEEP).....	Chalk River, Ont.	1945	100 w.	Natural uranium metal or oxide	Heavy water	—	Lattice experiments
National Research Experimental (NRX) ¹	Chalk River, Ont.	1947	42,000 kw.	Natural uranium oxide and enriched uranium alloy	Heavy water	Ordinary water	Research, engineering tests and isotope production
National Research Universal (NRU).....	Chalk River, Ont.	1957	90,000 kw. to 120,000 kw.	Enriched uranium alloy	Heavy water	Heavy water	Research, engineering tests and isotope production
Pool Test Reactor (PTR).....	Chalk River, Ont.	1957	100 w.	Enriched uranium alloy	Ordinary water	Ordinary water	Reactivity and absorption measurements
Toronto University Sub-critical Reactor.....	Toronto, Ont.	1958	—	Natural uranium metal	Heavy water	—	Research and teaching
McMaster Nuclear Reactor (MNR).....	Hamilton, Ont.	1959	2,000 kw.	Enriched uranium metal	Ordinary water	Ordinary water	Research
ZED-2.....	Chalk River, Ont.	1960	100 w.	Natural uranium metal oxide or carbide	Heavy water	—	Lattice experiments
Nuclear Power Demonstration (NPD).....	Rolphon, Ont.	1962	20,000 kw. (electricity)	Natural uranium oxide	Heavy water	Heavy water	Power demonstration
Whiteshell Reactor No. 1 (WR-1).....	Pinawa, Man.	1965	40,000 kw. at first	Enriched uranium oxide	Heavy water	Organic liquid	Research and engineering tests
CANDU-PHW-200 ²	Douglas Point, Ont.	1966	200,000 kw. (electricity)	Natural uranium oxide	Heavy water	Heavy water	Power
Karachi Nuclear Power Plant (KANUPP)...	Karachi, Pakistan	1970	137,000 kw. (electricity)	Natural uranium oxide	Heavy water	Heavy water	Power
CANDU-PHW-500 (several reactors) ²	Pickering, Ont.	1970	500,000 kw. (electricity) each	Natural uranium oxide	Heavy water	Heavy water	Power
CANDU-BLW-250.....	Gentilly, Que.	1971 proposed	250,000 kw. (electricity)	Natural uranium oxide	Heavy water	Ordinary water boiling	Power

¹ NRX is essentially duplicated in the Canada-India Reactor, near Bombay, India, which started up in 1960. ² The CANDU-PHW-200 design is also employed in the Rajasthan Atomic Power Plant in India, where the first reactor is scheduled to start up in 1969.

² CANDU-PHW stands for "Canadian Deuterium Uranium-Pressurized Heavy Water".