

Nuclear Power Plant Relay Protection Overhaul Plan



Overview

This regulatory document sets out the requirements of the Canadian Nuclear Safety Commission (CNSC) with regard to maintenance programs for nuclear power plants (NPPs). Nuclear power plants have a complex structure and changeable operation mode, which induces low setting calculation efficiency. After analyzing the technology, architecture, and functional logic of a variety of relay protection setting calculation systems and combining the characteristics of the. Implement proven, reliable, and secure protection, monitoring, control, and data collection solutions for nuclear power generation. From retrofits and system modernization to next-generation projects, like advanced reactor installations, nuclear power generation demands solutions that are reliable. Pickering Nuclear Generating Station is a Canadian nuclear power station located on the north shore of Lake Ontario in Pickering, Ontario. It is one of the oldest nuclear power stations in the world and Canada's third-largest, producing about 15% of Ontario's power and employing 3,000 workers. State the purposes of the Reactor Protection System (RPS). This technical paper presents decades of operational. THIS DOCUMENT WAS PREPARED BY THE ORGANIZATION(S) NAMED BELOW AS AN ACCOUNT OF WORK SPONSORED OR COSPONSORED BY THE ELECTRIC POWER RESEARCH INSTITUTE, INC.



Article Content

Dec 16, 2025

PRC-005-6: Protection System, Automatic Reclosing, and Sudden ...

Identify which maintenance method (time-based, performance-based per PRC- 005 Attachment A, or a combination) is used to address each Protection System, Automatic Reclosing, and Sudden ...

Dec 21, 2025

REGDOC-2.6.2, Maintenance Programs for Nuclear Power Plants

This regulatory document sets out the requirements of the Canadian Nuclear Safety Commission (CNSC) with regard to maintenance programs for nuclear power plants (NPPs).

Oct 08, 2025

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We are now providing SEL digital relays to the nuclear industry through a robust qualification and Commercial Grade Dedication (CGD) program. Replacement of existing relays with digital protection ...

Oct 03, 2025

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We are now providing SEL digital relays to the nuclear industry through a robust qualification and Commercial Grade Dedication (CGD) program. Replacement of ...

May 02, 2026

Relay Protection Setting Calculation System for Nuclear Power Plant ...

After analyzing the technology, architecture, and functional logic of a variety of relay protection setting calculation systems and combining the characteristics of the setting calculation of...

Apr 04, 2026

Industry Practices Related to the Application of Protective ...

Numeric relays including second generation digital relays and other microprocessor transformer protection devices are being used for LPT protection at new plants and for protective relay upgrade ...

Jun 06, 2026

Modernizing Nuclear Power Facilities with Digital ...

Discover how today's digital protective relays outperform legacy electromechanical systems in reliability, diagnostics, and overall availability.

Jan 12, 2026

Relay Protection Setting Calculation System for Nuclear Power Plant ...

The relay protection setting calculation system of nuclear power plants based on B/S architecture and cloud computing is a platform for relay protection setting calculation and ...

Jun 15, 2026

Framatome to implement full-scale digital protective relay upgrade at a ...

Framatome recently signed a contract to complete the first large-scale digital upgrade to the existing safety- and non-safety-related electromechanical protective relays at a U.S. nuclear ...

Jul 30, 2025

Modernizing Nuclear Power Facilities with Digital Protective Relays

Discover how today's digital protective relays outperform legacy electromechanical systems in reliability, diagnostics, and overall availability.

Contact Us

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