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Title:

PRELIMINARY DECOMMISSIONING PLAN - PICKERING GENERATING STATIONS A & B**Preliminary Decommissioning Plan -
Pickering Generating Stations A & B****P-PLAN-00960-00001-R002****December 2016**Order Number: N/A
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Planned surveys will be conducted. Routine radiological monitoring of contaminated structures and systems will also be performed. Procedures for responding to unanticipated changes in the radiological environment of the site and potential releases to the environment will be prepared and implemented, if required.

Adequate level of security will be provided during Safe Storage. Security during the Safe Storage period will be maintained primarily to prevent unauthorized entry due to the presence of spent fuel on the site. Once all the spent fuel is in DSCs, there will be a case for reducing the security presence on site. Security will be provided by the security fence, sensors, alarms, surveillance equipment, etc., which will be maintained in good condition for the duration of this period. Fire and radiation alarms are also to be monitored and maintained. A small plant staff will be available during this period to support the maintenance, inspection and surveillance programs.

4.2.1 Used Fuel Transfer Operations

The used fuel transfer operations will continue during Preparation for Safe Storage and extend into the Safe Storage period.

Fuel will be transferred to dry fuel storage after a 10-year cooling period and stored in DSCs at PWMF, which will remain in operation after PNGS is shut down. Consequently, the IFBs will remain in operation through the first part of the Safe Storage period until all the used fuel has been transferred to PWMF. In order to comply with CNSC and IAEA requirements, safeguard arrangements will be maintained until all of the used fuel has been removed from the IFBs.

A used fuel disposal facility will be available no earlier than 2043. Since PNGS will be shut down prior to the in-service date of this long-term disposal facility, used fuel will be emptied from their wet bays into DSCs, and transferred to interim storage at the PWMF.

Once all of the fuel (including all damaged fuel) has been removed from the IFBs, the following will be carried out:

- Conduct surveys to confirm that no fuel particles remain in the IFBs;
- Collect samples of the IFB water and analyze it to confirm that it meets the radiological and chemical clearance levels that have been established;
- Drain the IFBs and dispose of the water in accordance with the applicable regulatory requirements;
- Remove ion exchange resins for disposal;
- Survey and decontaminate the surfaces of the IFBs;
- Eliminate any remaining hazards to workers through the erection of barriers and posting of warning signs;