

EXECUTIVE SUMMARY

At the invitation of the Nuclear Regulatory Authority of the Slovak Republic (ÚJD SR), the IAEA conducted a SALTO (Safety Aspects of Long Term Operation) expert mission at Units 1 and 2 of the Mochovce Nuclear Power Plant (NPP) (further referred to as ‘the plant’) from 19 to 22 March 2024.

Mochovce NPP Unit 1 and 2 started commercial operation in 1998 and 2000, respectively. Nuclear units in Slovakia are licenced for operation without time limitation. The operator of the nuclear power plant, the Slovenské Elektrárne currently intends to operate the units until at least 2058 and 2060. The licence holder must develop and implement an ageing management programme and a long term operation (LTO) programme, which are reviewed as part of the required periodic safety review (PSR), which is the basis for licensing the operation of nuclear power plants in the Slovak Republic.

The SALTO mission reviewed the status of activities related to LTO assessment of the plant against IAEA Safety Standards and international best practices. The review team consisted of two IAEA staff members (team leader and deputy team leader), and three international experts from Brazil, Finland, and the Netherlands. The review covered the requested limited part of the standard scope of a SALTO mission: review areas B, C, D and E. The team reviewed the completed, in-progress and planned activities related to LTO, including ageing management of the structures, systems, and components (SSCs) important to safety and revalidation of time limited ageing analyses (TLAAs). Through the review of available documents, presentations, and discussions with counterparts and other members of the plant staff, the IAEA team observed in the field of ageing management and preparedness for safe LTO that many topics are managed as recommended by the IAEA Safety Standards and some other topics are planned to be addressed or finished in upcoming years.

The team found the plant staff to be professional, open and receptive to proposals for improvement. The mission team observed that plant management is committed to improving plant preparedness for LTO. A plant walk-down showed the plant is in a good condition. In addition, the team noted good performances. The following are the most important ones:

- Monitoring of corrosion stability of structural materials of the primary circuit.
- The equipment qualification programme.
- Monitoring of displacement of all in-scope structures.

The team recognized that the plant’s intention is to consider the IAEA Safety Standards in preparation for safe LTO. The team identified 6 areas for further improvement, the most significant ones are:

- The plant should complete the development of TLAAs.
- The plant should consider ensuring a comprehensive scope for LTO.
- The plant should consider improving the coordination of ageing management of electrical components.

A summary of the review was presented to the plant management and the representatives of the regulatory body during the exit meeting held on 22 March 2024. The plant management expressed a determination to address the areas identified for improvement and confirmed the intention to continue cooperation with the IAEA in the future.