

## EXECUTIVE SUMMARY

At the invitation of Vattenfall in Sweden, the IAEA conducted a SALTO (Safety Aspects of Long Term Operation) Expert Mission at the Forsmark Nuclear Power Plant (NPP) Unit 3 (further referred to as 'the plant') from 4 to 7 March 2025.

The SALTO mission reviewed the status of activities related to long term operation (LTO) assessment of the plant against IAEA Safety Standards and international best practices. The review team consisted of an IAEA staff member (team leader) and three international experts from Slovakia, South Africa and the USA, covering the agreed three areas, C, D and E of the standard scope of a SALTO mission. 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 safe LTO, that many ageing management and LTO activities are already in compliance with the IAEA Safety Standards. The SALTO team encouraged the plant management to facilitate implementation of all remaining activities for safe LTO.

The team found the plant staff to be professional, open, and receptive to suggestions for improvement. The mission team observed that plant management is committed to improving plant activities for LTO. A walkdown showed the plant to be in good condition. In addition, the team noted good performances including the following:

- The KOLIK ageing management database and a supporting spreadsheet are used at the plant for managing ageing information in an efficient and traceable manner.
- Existence of comprehensive instructions on environmental monitoring for preservation of equipment qualification.
- Revalidation of the TLAA for concrete containment tendon prestress that allows for pro-active evaluation against predicted values available up to 80 years.

The team recognized that the plant's intention is to follow the IAEA Safety Standards in preparation for safe LTO. The team identified several areas for further improvement. Six issues were raised, including the following:

- The plant should consider finalizing ageing management reviews and ageing management programmes of mechanical components before the start of the LTO period.
- The plant should consider completing the ageing management review of electrical and I&C components.
- The plant should consider effectively implementing the ageing management programmes for civil structures.

A summary of the review was presented to the plant management during the exit meeting held on 7 March 2025. The plant management expressed a determination to address the areas identified for improvement and indicated their intention to invite a SALTO follow-up mission in 2027.