

EXECUTIVE SUMMARY

At the invitation of the Government of the Republic of Armenia, the IAEA conducted a Pre-SALTO mission at Unit 2 of the Armenian Nuclear Power Plant between 28 November and 7 December 2016. The purpose of the mission was to review the plant's activities and plans for safe long term operation (LTO) against the IAEA's safety standards and provide recommendations and suggestions to improve the plant's performance in this area.

The IAEA team noted that the plant management has established a sound administrative structure and assigned tasks and responsibilities to personnel to complete the range of activities necessary for safe LTO. However, following a thorough review of information provided by the plant management and discussions with counterparts and other members of the plant staff, the IAEA team concluded that the plant's plan to prepare for long-term operation is ambitious, given that, at the time of the mission, the plant had yet to complete a significant part of the activities important for safe long-term operation. Consequently, the IAEA team stressed the need for the plant to continue to provide detailed guidance and prioritization of LTO activities to execute the action plan successfully in a timely manner.

The IAEA team found that plant management is committed to improving plant preparedness for LTO. The plant personnel were professional, open and very receptive to suggestions for improvement, and walk-downs showed the plant to be in good condition. In addition, the IAEA team noticed the following good practices and performances:

- The deep involvement of plant personnel in the safety upgrade modification programme;
- The development and implementation of a comprehensive seismic qualification programme;
- The identification of 27 key safety-related roles and suitable succession candidates placed in a development programme.

The IAEA team also found that the plant management approach to and preparatory work for safe LTO generally follows international practices, however not all activities align with the intent of the IAEA Safety Standards.

The team identified 14 issues for further improvement. These are:

- Existing documentation, either provided by Regulatory Body or developed by the plant, does not cover all aspects of preparation for safe LTO;
- Shortfalls in consistent application of requirements and guidance documents for plant preparation to LTO;
- The plant scoping and screening process for LTO is not based on methodologies and results are not properly documented;
- Inconsistency between the relevant plant programmes and ageing management and LTO activities;
- The plant has not completed ageing management review, development and implementation of ageing management programmes;
- The plant has not identified and revalidated all applicable Time Limited Ageing Analyses of mechanical components for LTO;
- Lack of a comprehensive plant-owned environmental qualification programme;

- The plant has not yet established a comprehensive, proactive technological obsolescence programme;
- The plant has not developed specific ageing management programmes for electrical and I&C components for LTO;
- The plant's arrangements for scoping and screening of electrical and I&C components do not ensure that ageing management of all relevant components is sufficiently rigorous;
- Some relevant safety related structures are not considered in the scope of ageing management programme for LTO;
- The Ageing Management Review of civil structures is incomplete and does not include identification of all relevant in-scope Systems, Structures and Components, assessment of their current physical status and implementation of corrective actions;
- The plant procedures for ageing management of civil structures important for safety are not sufficiently developed, upgraded or rigorously implemented;
- Some Competence and Knowledge Management processes are not utilised or integrated into the plant organisations to support the LTO programme.

A summary of the review was presented to plant management during the exit meeting held on 7 December 2016. The plant management expressed a determination to address the areas identified for improvement, and indicated the intention to invite a 'SALTO peer review mission' at Unit 2 in November 2018 to continue the review of the plant preparation for LTO.