

EXECUTIVE SUMMARY

At the invitation of ANAV, operator of Ascó and Vandellós Nuclear Power Plants (NPPs), the IAEA conducted a SALTO (Safety Aspects of Long Term Operation) mission at Unit 1 and 2 of the Ascó NPP from 20 to 29 July 2021.

Ascó NPP Unit 1 and 2 (hereinafter referred to as ‘the plant’) have been in operation since 1984 and 1986. The units will reach their design lifetime of 40 years in 2023 and 2025. The company intends to extend their operation beyond the original design lifetime.

MAIN MISSION CONDUCT AND RESULTS

The team of 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 two IAEA staff members (team leader and deputy team leader), five international experts and four observers, covering all six areas 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 preparedness for safe LTO, that many ageing management and LTO activities are already in compliance with 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 proposals for improvement. The mission team observed that plant management is committed to improving plant preparedness for LTO. Walk-downs showed the plant to be in good condition. In addition, the team noted the following good practices and performances:

- Management and updating of comprehensive living design basis document (DBD);
- Innovative and integrated usage of AMP data regarding soil movement for LTO analysis;
- Effectivity assessment of safety-related organizational changes one year after their approval.

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. Fourteen issues were raised, including three recommendations and eleven suggestions: The most significant ones are:

- The plant should implement a consistent strategy in using standards for ageing management and LTO (issue A-2);
- The plant should ensure a comprehensive identification and labelling of in-scope structures and components (issue B-2);
- The plant should develop and implement a comprehensive equipment qualification programme (issue D-1).

A summary of the review was presented to the plant management during the exit meeting held on 29 July 2021. The plant management expressed a determination to address the areas identified for improvement and indicated their intention to continue cooperating with the IAEA on the review of progress in preparing the plant for safe LTO.

FOLLOW-UP MISSION CONDUCT AND RESULTS

The IAEA follow-up team consisted of three experts from the Netherlands, Sweden, and the Czech Republic, two IAEA staff members (team leader and deputy team leader), and one observer from the Netherlands, covering all areas of the original SALTO review mission.

The IAEA follow-up team reviewed the progress in solving each of the issues from the 2021 SALTO mission. Based on the observations of the follow-up mission, the team noted that the plant had progressed in solving most of the issues. The resolution degree was determined by the team for each issue sheet separately, with the following results:

- 12 issues were assessed as issue resolved;
- 2 issues were assessed as satisfactory progress to date.

The SALTO team concluded that actions taken to solve some recommendations and suggestions are sound and implemented well. The following can be highlighted:

- Issue A-3: The plant implemented an advanced digitalization process to ensure easy retrievability, traceability and long-term preservation of ANAV's documents.
- Issue B-1: The plant defined and implemented an appropriate scope setting methodology for safe LTO.
- Issue C-1: The plant completed full demonstration of effective ageing management in the AMR of passive and also of active mechanical components.

Nevertheless, two issues still require attention and effort of the plant:

- Issue D-1: The plant should develop and implement a comprehensive equipment qualification programme.
- Issue E-2: The plant should consider enhancing ageing management of structural elements of electrical cabinets and panels.

A summary of the results was presented to the plant management during the exit meeting held on 8 September 2023. The plant management expressed a determination to continue to address the remaining issues and continue cooperation with the IAEA.