

EXECUTIVE SUMMARY

At the invitation of the Comisión Federal de Electricidad (CFE), a SALTO (Safety Aspects of Long Term Operation) follow-up mission was conducted at the Laguna Verde Nuclear Power Plant Unit 1 and 2 (further referred as 'the plant') on 23 to 27 January 2017 to review the progress in resolution of issues of a Pre-SALTO mission performed on 09 to 18 March 2015.

CFE, a public utility which is owned by the Federal Government of Mexico, is the licensed operator of the plant. The unit 1 started commercial operation in 1990 and unit 2 in 1995. The unit 1 license expires on July 24, 2020 and the unit 2 license expires on April 10, 2025. CFE requests renewal of the operating licenses for the plant, for a period of 30 years beyond the expiration of the current licenses.

Thirteen issues were raised during the Pre-SALTO mission in March 2015:

- Project strategy, tasks, responsibilities, organization and coordination concerning the implementation of LTO project are not appropriately defined;
- Organizational arrangement for improvement of ageing management at the plant after License Renewal (LR) evaluation is not adequate;
- Scoping and screening process at the plant does not assure that all SSCs are in the scope for evaluation for LTO;
- Existing plant programmes relevant for LTO are not adequately enhanced for LTO;
- The ageing management review is not properly supported by a condition assessment of all in-scope structures and components (SCs);
- The plant does not have documented approval of all documents prepared by contractors that support their LTO programme.
- The proactive part of the obsolescence programme is not in place yet;
- Operating experience from the whole operational history of the plant was not considered for LTO;
- There is no temperature monitoring programme in place at the plant to identify hot spots, which can demonstrate that operational temperatures for the Systems and Components (SCs) in the Equipment Qualification (EQ) programme do not exceed the temperatures used in the calculations for qualified life;
- Ageing management of containment suppression pool and associated components is not effective;
- The Ageing Management Review (AMR) tables do not cover evaluation for all known ageing effects and do not designate the most stringent ageing management programme (AMP) for managing the ageing effects;
- Visual inspections of containment liner plate, penetrations, and concrete before Integrated Leak Rate Tests (ILRT), and at periodic intervals in between the ILRT, were not performed;
- Many AMPs, which are identified by LR evaluation as important for managing ageing, are currently not implemented.

FOLLOW-UP MISSION CONDUCT AND RESULTS

The IAEA follow-up team consisted of one IAEA staff member, three external experts and two observers. The participating expert from Sweden was a member of the Pre-SALTO in March 2015 and other two experts from Argentina and USA were also invited. Observers from Argentina and Brazil were also actively contributing members of the follow-up team. The SALTO follow-up report is the original report from the SALTO mission in March 2015 supplemented with the ‘counterpart actions’ and ‘follow-up assessment by the IAEA review team’.

The IAEA follow-up team reviewed the progress in solving each of the issues from the Pre-SALTO mission in March 2015 separately. The ‘counterpart actions’ provided in issue sheets are reviewed by the IAEA follow-up team prior to the follow-up mission and confirmed in the field during the visit. ‘Follow-up Assessment by the IAEA Review Team’ is then added in light of the follow-up mission. The IAEA conclusion is given in issue sheets section ‘Resolution Degree’. ‘Status at follow-up SALTO mission’ is prepared by the IAEA team for each review area.

The team has concluded that the plant has progressed in solving most of the issues. Resolution of some issues requires further work by the plant. The resolution degree was determined by the team for each issue sheet separately, with the following results:

- 4 issues were assessed as insufficient progress to date;
- 9 issues were assessed as satisfactory progress to date;
- 0 issues were assessed as issue resolved.

Plant management expressed a determination to continue to address the remaining issues and prepare for safe LTO, and indicated its intention to invite a ‘SALTO peer review mission’ in February 2019 to complete the review of the plant preparation for LTO.