

Eskom – Koeberg Nuclear Power Station
R27 West Coast Road,
Melkbosstrand
Cape Town
Private Bag x10
Kernkrag
7740

Date: 08 April 2025

BRIEFING NOTE: KOEBERG NUCLEAR POWER STATION'S LONG TERM OPERATION STATUS UPDATE

This briefing note provides an update on long term operation (LTO) activities outlined in the National Nuclear Regulator (NNR) directive, k10001925N (dated 19 July 2024), as presented at the Public Safety Information Forum (PISF) in March 2025.

All activities required for licensing of Koeberg for LTO are completed. Koeberg Unit 1 obtained a LTO licence from the NNR allowing it to operate Unit 1 for an additional 20 years until 21 July 2044. The Koeberg Nuclear Installation Licence, NIL-01 has been amended to Variation 21 to reflect a new licence expiry date for Unit 1 and include Condition 16.4 incorporating the NNR directive, k10001925N. Unit 2 LTO licence will be responded to by the NNR prior to 9 November 2025.

The updated licence directive contains the post-LTO safety case (safety improvement) commitments (14 activities), the periodic safety review (PSR) safety improvements (108 activities), and specific requirements identified by the NNR (17 activities). Eskom has evaluated all the required activities, developed action plans to achieve the tasks, and developed a monitoring dashboard for oversight by internal committees and management meetings. The objective is to ensure the timely and proper closeout of all activities.

In general, activities are progressing well towards their target dates. There is a total of 139 activities, of which 46 have been closed.

To date, one activity is delayed, i.e., hardened water supply modification and one that has challenged timelines, i.e., impressed current cathodic protection (ICCP) modification. In addition, there are a few NNR directive-specific requirements that have constrained schedules. These activities have detailed recovery plans and undergo specific focus to ensure mitigation of identified risks.

The implementation of the ICCP modification is a first-of-a-kind initiative, requiring innovative solutions and rigorous validation. A number of delays have resulted in an adjustment of the detailed design that has now been submitted to the NNR for approval. Once approved, the installation can be contracted and only then will a credible schedule become clear.

Formal communication will be shared with the NNR as soon as this is achieved. The hardened water supply modification is now in progress with construction well on its way and expected to be completed in 2025.

The implementation of the hardened water connection points modification has a constrained schedule; however, it is planned to be implemented in the current outage (Outage 127). The main concern is the timely delivery of the ordered components that are being manufactured and required for construction. The project team is continuing with all efforts to complete the project on schedule, with current mitigations, it is envisaged that the timelines will be met.

The assessment of the effectiveness of the Koeberg Nuclear Emergency Plan has a constrained schedule caused by the process of appointing an independent contractor to perform the evaluation. The procurement specification was updated to reflect the revised scope after input was obtained from the NNR. The contract placement is currently in progress.

The update of the emergency plan technical basis (EPTB) requires input from the seismic probabilistic safety assessment (PSA). The contract for the seismic PSA has been placed and work has commenced. However, in the unlikely event of delays with the seismic PSA, there is a potential impact on the schedule for updating the EPTB. The accelerated ageing (and testing) of representative samples of the aseismic bearings has a constrained schedule due to delays caused by the required motivation and approvals for a contract. The contract placement is currently in progress and the project team remains committed to meeting the scheduled timeline.

In general, activities are progressing well towards their target dates and the NNR is kept informed about the LTO related activities on a regular basis. The NNR scrutinises all Eskom submissions and demands the highest nuclear standards to be kept.

Koeberg continues to operate safely while implementing additional safety features and processes through LTO activities. This continuous improvement is a hallmark of the nuclear industry.

Compiled by:



D Malale
LTO PROJECT ENGINEERING MANAGER