

Instrumentation

METHODOLOGY REVIEW FOR THE AGEING SELF-ASSESSMENT APPLIED AT IEA-R1

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The ageing phenomenon is a general process that occurs in all kind of installation in different ways of intensity depending on large spectrum of causes. In a Research Reactor technological ageing and natural physical ageing associated to utilization or decay are present in most of items. This way the main objective of this paper is to describe the methodology applied to study and manage this effect in order to preserve the installation integrity and in addition to present the current status of the ageing management program.

Studies and ageing management self-assessment of IEA-R1 IPEN research reactor were conducted following IAEA recommendations contained in the Technical Report 338: "Methodology for the Management of Ageing of Nuclear Power Plant Components Important to Safety", in the TECDOC 792: "Management of Research Reactor Ageing" and in the IAEA - Service Series - "guidelines for the Review or Research Reactor Safety".

The self-assessment resulted in the identification of critical components for the ageing management program and also, recommendations for improvement of the Inspection and Testing Plan and Organization of Documents and Records procedures were included. The ageing studies carried out have provided useful information on the present condition of the components of the system, for instance, identifying the major repairs and refurbishing requirements for primary coolant systems.

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