Processes and Practices Related to Occupational Dose

ID: 15

ELIMINATE ANTIMONY IN MAIN COOLANT PUMP BEARINGS (PWRs)

Keywords: ANTIMONY IN RCP BEARINGS; ANTIMONY

Description:
A significant proportion of radiation dose in nuclear power stations is produced during inspection. Antimony sources provide the bearings of the main coolant pumps from Sb-impregnated coal. Theoretically, defective Sb-Be secondary neutron sources also play a part. The investigations conducted during commissioning led to the expectation that a significant contribution to the collective dose during the first inspection of the plant would be made by Sb-124. It was therefore decided to take steps to reduce as much as possible the Sb-activity occurring during the shutdown of the plant. The procedure practiced showed that Sb-mobilization and subsequent removal of Sb-activity within 40 hours, even before the opening of the reactor pressure vessel top cover, can be carried out successfully.

References and Selected Abstracts: