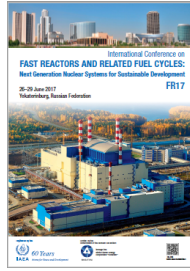


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Proposal of Basic Principles of Maintenance Management for Prototype Reactors

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Basic principles of maintenance management for prototype reactors are proposed in this paper. One of main missions of prototype reactors is R&D for commercializing advanced reactors, which shall be appropriately considered in maintenance management for prototype reactors. Development of maintenance programs suitable to a reactor type is one of key features of the proposed basic principles of maintenance management for prototype reactors. It is important to identify risks specific to the reactor type, and maintenance grade of structures, systems and components should be determined considering the risks by applying the graded approach. Degradation mechanisms specific to the reactor type shall be also taken into account in the maintenance program. Progressive development of maintenance programs by accumulation of operation experiences is another key feature of the proposal. Maintenance programs have to be modified and improved frequently by reviewing results and knowledge obtained during operations. The graded approach will be useful to control risks corresponding to revisions of maintenance programs. Standardization is one of effective ways to utilize operation experiences for maintenance of prototype reactors and also development of commercialized reactors.

Country/Int. Organization

Japan

Author: Dr TAKAYA, Shigeru (Japan Atomic Energy Agency)

Co-authors: Prof. YAMAGUCHI, Akira (the University of Tokyo); Mr KUNOGI, Kosuke (JAEA); Mr ARAI, Masanobu (JAEA); Mr KUBO, Shigenobu (Deputy Director Advanced Fast Reactor Cycle System R&D Center, JAEA); Mr KOTAKE, Shoji (JAPC); Mr ITO, Takaya (MFBR); Dr CHIKAZAWA, Yoshitaka (Japan Atomic Energy Agency)

Presenter: Dr TAKAYA, Shigeru (Japan Atomic Energy Agency)

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