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New Inspection System: Lengthened Intervals between Periodic Inspections

On August 23, a study group on maintenance and management under the Nuclear and Industrial Safety Subcommittee's working committee on nuclear reactor safety (the subcommittee falling under the jurisdiction of the Advisory Committee for Natural Resources and Energy) deliberated on the intervals to be placed between periodic inspections under a new inspection system to come into force in the upcoming fiscal year, which starts on April 1, 2008. The Nuclear and Industrial Safety Agency (NISA) proposed adding categories of 18 months and 24 months to the current uniform 13 months, and the study group agreed.

At the meeting, NISA presented a specific proposal on the intervals for the first time. Under the new inspection system, the government is to notify each plant of the category in which it falls for periodic inspection intervals under the Electric Utility Industry Law. There are three intervals – 13, 18, and 24 months – that the government will determine based on its evaluation of engineering tolerances and other factors.

Meanwhile, under the Reactor Regulation Law, nuclear-related companies decide intervals between reactor outages (as a basic item in an operator's maintenance program) and include them in their Safety Preservation Rules, for which they have to submit approval applications to the national government. Companies decide upon such intervals by evaluating how long each item of equipment or system can operate without outage, calculating the outage interval based on the shortest item interval, as well as the timing of refueling. The government will examine equipment and systems subject to periodic inspections by companies, and examination standards, including the appropriateness of the inspection intervals. National periodic inspection intervals will be decided for each plant in accordance with both laws.

In April 2008, when the new inspection system comes into effect, all plants will be in the same category, namely, 13 months. Evaluations will then be made of plants for which data are ready for evaluating engineering tolerances and other items, and they will be placed into individual categories. NISA said, however, that changes in categories will be conservative, and that no changes from 13 to 24 months will be approved.

Explaining the reason for adding categories of 18 and 24 months, NISA cited the results of considerations by professional societies and associations, and the frequencies of facility inspections and operational performance in other countries. The Japan Power Engineering and Inspection Corporation and the Japan Society of Mechanical Engineers addressed the matter, NISA said, and both said that continuous operation for 18 months and/or about two years would be possible. In the United States, reactors operate for 24 months, and in France, 18 months, without any observed increase in equipment problems as a result of such longer operation.

NISA will draft a proposed ministerial ordinance, necessary to change the system, by the end of September. After making it available to the public for comments, a trial of the system will be carried out at representative plants by the end of the year. Based on those results, operators' maintenance programs and operational plans will be prepared covering all safety-related equipment, and guidelines and examination standards, etc., will be developed.

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