

## **Periodic Inspections: Current Interval Lacks Scientific Basis**

**On November 15, the Ministry of Economy, Trade and Industry (METI) held the first meeting in two years of the study group on inspections, established under the Advisory Committee for Natural Resources and Energy's Nuclear and Industrial Safety Subcommittee.**

Besides making follow-up reviews of the new inspection system introduced in October 2003, it will also debate such matters as the application of risk-related information and performance evaluations to inspections, as well as the organization of various types of inspection systems. In addition, the members will discuss the problem of the interval employed in NPP regular periodic inspections under the current system, as some believe that it now lacks a scientific basis. The study group plans to produce a report by June 2006.

At the beginning of the meeting, the chairman of the study group, Haruki Madarame, professor at the University of Tokyo Graduate School, stated, "The new inspection system requires operators to establish and organize quality guarantees, and I would also like to perform a PDCA (plan-do-check-action) cycle on our discussions about inspections." He thus demonstrated his desire to grapple with additional problems, such as that of aging reactors.

Next to speak was Director General Kenkichi Hirose of the Nuclear and Industrial Safety Agency (NISA), who said, "It is necessary to make a major overhaul of the inspection system," adding his observation that the new inspection system had caused "people working on site to complain about the huge increase in their trouble." He stressed the need to improve and enhance inspections amidst circumstances of limited human and material resources.

In the midterm report drawn up by the study group in June 2002, entitled, "Directions for the Review of the Inspection System of Nuclear Power Facilities," seven items were delineated to enhance the efficacy of inspections: (1) Enhancing quality-control activities, (2) Introducing surprise methods (spot checks, etc.), (3) Utilizing quantitative risk evaluation, (4) Carrying out inspections in a way reflecting performance evaluations, (5) Organizing standards and specifications, (6) Actively implementing measures based on the law, and (7) Utilizing the lessons of minor troubles. NISA said that it has yet to formulate responses concerning items #3 and #4 above (namely, applying the results of risk evaluation and changing the contents of inspections depending upon the performance of each nuclear reactor).

Future items of discussion include the need to improve maintenance inspection methods, and the importance of dealing with the problem pointed out by some people that the spacing of the interval between regular inspections (both operator inspections and safety-management inspections) in the current system has "scant scientific basis."

Ichiro Takekuro of the Federation of Electric Power Companies, who was attending the study group meeting as a specialist, voiced his opinion from the vantage point of an electricity operator, saying, "Premised on the idea of operator self-security, it is necessary to instill and develop the basic philosophy of the current system, namely, its audit-oriented nature." He cited the importance of enabling people working on NPP sites to palpably sense improvements in quality corresponding to their efforts, thus increasing their eagerness to work. As far as inspections are concerned, he emphasized the need to aim for the kind of improvements that would share international commonality, and which could serve as a model for other nations, particularly those in Asia.

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