

Regulatory Impacts of International Operating Experience and Nuclear Safety Regulatory Information Conference

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Part-1 Regulatory Impacts of International Operating Experience

1. Previous action of Operational Experience Feedback (1)

- NISA summarizes and feedbacks the causes and measures for reported events based on legal requirements.
- NISA collects and analyzes the regulatory information of overseas events in cooperation with JNES to reflect in the regulatory activities.

1. Previous action of Operational Experience Feedback (2)

- Previous results (FY2003-FY2010)
 - Collection & Analysis
798 Events (Incl. Nuclear Fuel Facilities etc.)
 - Regulatory Action
14 Events (Issuing the written instructions etc.)
- Issues to be addressed
 - Quick & Certain Collection of the licensee's information

Institution of the result of NISA's analysis etc. 3

2. Examples of Actions Concerning Items Extracted So Far (1)

- Overview
 - Sump & Strainer Clogging Issue
 - Possibility to cause safety function significant impact at the time of Loss of coolant accident (LOCA)
 - Regulatory actions for Sump & Strainer Clogging Issue in Europe & the United States



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- NISA's major actions
 - Instruct licensees to report the data for evaluating the effectiveness of strainers etc. <June 2004>
 - Add Sump & Strainer to the required item list of the Construction Plan, and issue the BWR review criteria <October 2005>
 - Revise the Technical Standard, and issue the review criteria of the performance evaluation of strainers <February 2008>
 - BWR licensees; reduction of the insulator & modification to large-scale strainers (implemented)
 - PWR licensees; modification to large-scale sump screen by March 2011

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2. Examples of Actions Concerning Items Extracted So Far (2)

Control Room Habitability

■ Overview

- In the United States, the airtight and the integrity of the control room have been maintained.
- It is important to secure the habitability of the control rooms to ensure the safety function of the nuclear facility.



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■ NISA's major actions

- Instruction of the evaluation of the radiation exposure to identify the actual status of the habitability of control room <December 2005>
- Revision of the Technical Standard to provide the regulatory requirements for the habitability of control room <January 2006>
- Issue the Internal Regulation of the radiation protection, and instruction to report the evaluation of the radiation exposure <August 2009>
- Licensees will report the result of radiation exposure evaluation until March 2011.
- Licensees carry out the reinforcing work of the seal; countermeasure of airtight of the control room

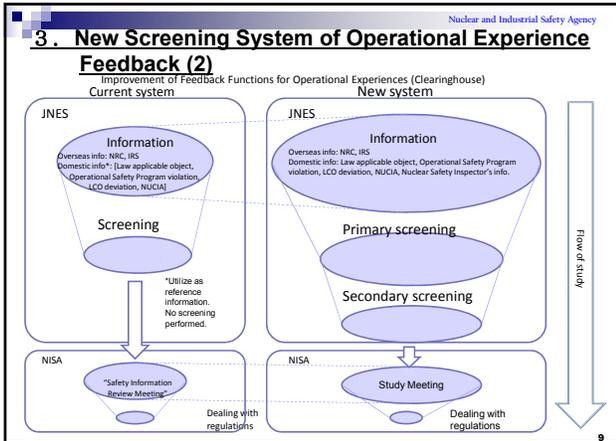
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3. New Screening System of Operational Experience Feedback (1)

Details of Improvement of System Maintenance

- Construction of a Clearinghouse system capable of efficient evaluation and analysis, and effective reflection in the regulations
- Establishment of route to the licensees for information collection and provision
- Clarification of the policy for dealing with domestic operational experience
- Improvement of Transparency; Issue bylaw of operating procedure of the Clearinghouse system
- Enhancement of information transmission; broadly disseminating information at home and abroad on the result of the study

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3. New Screening System of Operational Experience

Feedback (3)

[Screening Criteria] (1)

- Screening Criteria 1 : Screening out ①
 - Out of regulation; Problems specific to the country concerned
 - Similar accidents or failures is unthinkable because the facility composition is different from the Japanese nuclear facilities.

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- Screening Criteria 1 : Screening out ②
 - Corrective actions have already been taken, or the current regulations can deal with.
 - Information that is not said to be important from the viewpoint of safety because such information describes the status of accidents and failures but does not describe the subsequent status, such as an investigation of the causes and the results obtained from such investigations.

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3. New Screening System of Operational Experience Feedback (4)
[Screening Criteria] (2)

- Screening Criteria 2 : Screening in (1)
 - Quantitative screening criteria (Brief ASP)
 - ✓ Conditional core damage probability (CCDP) $\geq 10^{-7}$ or INES level 1 or more

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3. New Screening System of Operational Experience Feedback (4)
[Screening Criteria] (2)

- Screening Criteria 2 : Screening in (2)
 - Qualitative screening criteria (Typical example)
 - ✓ Degradation of important safety equipment
 - ✓ Transients that result in unexpected plant response or cause damage to equipment important to safety
 - ✓ Transients that involve inappropriate operator actions or equipment performance that affect core reactivity or reactor safety
 - ✓ Potential degradation of important associated structures, etc.

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Part-2
Outline of the Nuclear Safety
Regulatory Information Conference

1. Purpose of the conference

- The continuous review and upgrading of the regulatory activities.
- Enhancement of public understanding of and trust in the regulatory authorities.
- An open and intensive discussion with various stakeholders.

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2. Overview of the conference

- 1) Host: Nuclear and Industrial Safety Agency (NISA) of the Ministry of Economy, Trade and Industry (METI)
- 2) Date: October 7 (Thu) and 8 (Fri), 2010
- 3) Place: at METI
- 4) Number of participants: General meeting: 386
A total of 1,665 for the two days.

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3. Program

[General meeting (in the morning on Oct. 7 (Thu)

1. Opening remarks: Tadahiro Matsushita (Senior vice minister of METI)
2. Keynote speech:
 - Haruki Madarame (Chairman of the Nuclear Safety Commission (NSC) of Japan)
 - Kristine L.Svinicki (U.S. Nuclear Regulatory Commission (NRC) commissioner)
3. Report on activities of NISA
 - Nobuaki Terasaka (Director General of NISA)
4. Plenary session

[Technical session, etc. (in the afternoon on Oct. 7 (Thu)~)]

5. Technical session

4. Technical session, etc.

- **Technical session**

Discussions were held on 10 topics relevant to the issues concerning the safety regulatory activities (see the following slides).

Fifty one persons from nuclear regulatory bodies, local governments, international organizations, universities, utilities, vendors, press people, etc. attended the session as panelists, etc.

- **Poster session**

Introduction of NISA and JNES

- **Visit to the Emergency Response Center of NISA**

Emergency Response Center (ERC) at METI

Future Actions for Tasks in Each Session (Part 1)

Session 1 "Further Internationalization of NISA and its International Contribution"

- As for global standardization of safety regulations, promote enhancement of activities according to the report summarized by International Nuclear Safety Working Group.
- Positively support newly developing countries from the viewpoint of contributions to the international framework.
- Positively promote activities of international human resource cultivation.

Future Actions for Tasks in Each Session (Part 2)

Session 2 "Nuclear Safety Regulation Taking Advantage of Risk Information"

- Revise the present execution plan of risk information utilization for nuclear safety regulations.
- Establish the risk information utilization seminar (seminar for personnel) from the viewpoint of improving awareness and the qualifications of the Safety Agency personnel concerning risk information.

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Future Actions for Tasks in Each Session (Part 3)

Session 3 "Future Improvement of Safety Regulation in Relation to the Nuclear Fuel Cycle"

- Establish the study meeting concerning inspection systems for processing and recycling facilities to study ideal safety restrictions related to nuclear fuel cycle.
- Consider establishment of a working group in the Nuclear Fuel Cycle Safety Subcommittee to seek directionality.

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Future Actions for Tasks in Each Session (Part 4)

Session 4 "Construction and Utilization of Infrastructure to Improve Seismic Safety through Industry-Academia-Government Collaboration"

- Utilization of opinion exchange opportunities between the stakeholders, such as the restriction authorities (NISA, JNES) and businesses.

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Future Actions for Tasks in Each Session (Part 5)

Session 5 "Roles of Companies and Regulations in the Maintenance of Nuclear Power Facilities"

- Continue the improvement of comprehensive evaluations of maintenance activities.
- Under the new inspection system, build confidence between businesses and the review organization (Safety Agency, JNES) toward enhancement of the maintenance program.

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Future Actions for Tasks in Each Session (Part 6)

Session 6 "Quality Improvement of Nuclear Power Safety Regulatory Activities by NISA"

- Establish verifiable targets for an achievement degree of the safety regulation activity plan of Safety Agency, and improve the PDCA cycle.
- Review the methods of creating rules for promoting quality assurance activities and establish instruction courses.

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Future Actions for Tasks in Each Session (Part 7)

Session 7 "Stakeholder Communication on the Transparency of and Confidence Fostering for Nuclear Safety Regulatory Activities"

- Study the public announcement criteria relating to accidents and problems (setting a quantitative evaluation scale for public announcement).
- Prepare the *Easy Understanding Handbook* (temporary name).
- Introduce the activity information on the Safety Agency positively to realize the building of confidence.

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Future Actions for Tasks in Each Session (Part 8)

Session 8 "Ensuring the Infrastructure for Safety Regulations on the Disposal of High-Level Radioactive Waste (HLW)"

- Develop a program of safety restriction research concerning underground disposal of high level radioactive waste.
- Study easily understandable ways to make the public aware of the restriction research report.

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Future Actions for Tasks in Each Session (Part 9)

Session 9 "Various Problems in Safety Regulations around Spent Fuel Storage"

- Study globalization of holistic approach.
- Pursue the study of new types of storage vessels that reflect the current technical progress while looking further into future restriction needs.

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Future Actions for Tasks in Each Session (Part 10)

Session 10 "Current Situation and Future Prospects of Fire Protection in Nuclear Facilities"

- Follow up on the challenges faced by businesses.
- Develop a manual for protection from fire and enhance cooperation with the relevant parties.

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