

【Conference Overview】

Date: 9:30 to 18:45, Thursday, April 24

Place: Iino Hall

Number of Participants: Approximately 360 (excluding lecturers and presenters)

【Opening Remarks】

Shojiro Matsuura, Chairman, JANSI



This Conference is organized to have JANSI's activities widely known not only by the members, but also those who are concerned with nuclear energy, and invite extensive opinions that will help improve our activities.

This January, we put together our "Five-Year Plan" to get all activities off the ground in five years. Today, we will introduce to you some of those activities from the "Five-Year Plan."

Based on the "Five-Year Plan," JANSI will carry out its activities striving for excellence in terms of safety systems and facility management, incorporating the latest knowledge and information from abroad. I believe it is the high road to achieve the objectives of JANSI by steadily implementing the "Five-Year Plan."

【Address by Guests】

Jacques Regaldo, Chairman, WANO



In Japan, regulatory requirements have been reinforced since the launch of the Nuclear Regulation Authority. The competence of JANSI has also been reinforced. From now on, JANSI will play a very important role.

WANO's mission is international cooperation and we will continue providing active support for JANSI. WANO and JANSI share the same objectives with regard to activities.

Excellence in nuclear safety will never be attained by one organization alone. International cooperation is an important key. Betterment will be promoted as organizations bring their ability and experience together. Without doubt, this conference will be the best example of international cooperation.

Makoto Yagi, Chairman, FEPC



Operators have determined to "continue their own reforms and strive for the world's highest level of safety." They will voluntarily and continuously endeavor to ensure nuclear safety. To this end, I think it is very important for them to maintain close coordination with JANSI's activities. I would like to ask JANSI to continue providing strong leadership and support for operators' activities.

Last September, I visited INPO in the U.S. I was impressed then because INPO was providing strong leadership for operators' safety improvement activities.

I have a high expectation that JANSI will promote information exchange and coordination with overseas organizations, including INPO, and provide strong leadership for the world's highest level of safety of nuclear power generation.

【Special Presentation】 What did the nuclear accident ask Japanese people?

Ryusho Kadota, Nonfiction author



In the book entitled "The man who saw the edge of death—500 days for Masao Yoshida and Fukushima Daiichi," I described what happened by interviewing more than 90 persons concerned. Today, I will share the inside story with you.

Pitch darkness alone can terrify you. In Fukushima, however, radiation dose was increasing. When I heard that Fukushima workers ran into the pitch dark gateway, I decided to write this book to pass down the story of those who fought to stop Japan from collapsing.

When I interviewed Site superintendent Yoshida, TEPCO bashing was at its peak. I thought that it was OK if today's people would not read it, but I would write it to pass the truth on to the future. I also asked Site superintendent Yoshida to tell me his story from that viewpoint.

Through these interviews, I have found that it is a miracle that Fukushima maintains the current condition. Japanese people's field capabilities are amazing. Those who were in the field of Fukushima had true integrity. They never forgot it. That is what saved Japan.

Integrity as nuclear operators. There is something that is more important than selling electricity. The life of people and our nation. I would like each of your organizations to remember this true integrity.

When I interviewed the people in the field, most of them answered, "We did not have a chance without Mr. Yoshida." When I asked why, they answered, "We were able to hang in there because we thought we could die with him." The odds that Japan could be saved were low. However, I found that Japan was saved because of Mr. Yoshida and his followers.

The essence this accident asked us lies here. The people of Hamadoori who supported their own families saved families, homes, and Japan. I do not think that Japan could have been saved without them.

【General Presentation】 (Naruse, Director, Strategy Planning Division)

"Coordination Principle" is JANSI's basic management principle. We respect independence not only in technical judgment, but also in human resources, personnel affairs, and budget. We have the authority to recommend reactor shutdown and more. It is very important to share awareness with top management. This will help operators to make improvements on their own. We have also stipulated cooperation among operators.

One of the mechanisms to accomplish our mission is "recommendations." Recommendations will not only communicated to the applicable CEO, but also shared among CEOs. This will serve as peer pressure among CEOs.

【Session 1 (1)】 Approach to safety improvement and the status of severe accident (SA) measures
(Kurata, Operations Officer, Nuclear Safety Division)

Commentator: Jozef Misak, Director for Strategy, VP, ÚJV Řež, a. s., Czech



JANSI is working on IAEA SRS-46 in an innovative manner. I would like JANSI to continue its coordination and cooperation with other countries. It is also important to maintain communication with regulators.

It was mentioned that PRA was important. However, it is important to consider that PRA is one of the comprehensive approaches. It is vital to start with deterministic approaches.

After Fukushima, it seems that Japan is focusing on low-probability external events and others. I would like you to remember the viewpoint that day-to-day work is the most important.

【Session 1 (2)】 Use of risk information to improve safety
(Kurata, Operations Officer, Nuclear Safety Division)

Commentator: Robert Budnitz, Researcher, Lawrence Berkeley National Laboratory



The direction of Japan's efforts is right. It is challenging to enlighten senior executives (CNOs). It is considered important to gain understanding from senior executives. On the other hand, it is also important to infiltrate risk awareness into Shift and Maintenance.

The U.S. has several hundred PRA experts. Half of them are at power stations and the rest works for consultants. Japan's direction is very good. However, it is necessary to understand that there are a limited number of experts and will take considerable time. Continuation is important.

It is correct that plant-specific data is important. However, it does not mean that plant-specific data is essential. Plant-specific data will provide more plant-specific PRA.

【Session 2 (3)】 Efforts to improve safety through peer reviews
(Ohbu, Operations Officer, Plant Evaluation Division)

Commentators: Inoue, Representative Director & Executive VP, Tohoku Electric Power Co.
Furubayashi, Managing Director, Chugoku Electric Power Co.
Ichimura, Executive VP, Japan Atomic Power Co.

Overseas practices are sometimes difficult to understand due to different circumstances. Considering the difference in each country's work process, industry-wide efforts should be made to explore and develop specific criteria for excellence that are easy to use and will fit the actual condition of Japan's industry.

Although it is meaningful to share individual plant reviews with industry, innovative ideas should be worked out to allow for in-depth study of major challenges and common issues at workshops and the like.

There are a lot of favorable Japanese ideas. Traditional practices that should be preserved rather than changed should also be discovered and introduced as good practices.

Specific criteria for excellence should be clearly standardized in each area for review so that they can be managed

appropriately to prevent variations from one reviewer to another.

Benchmarking and engineering support programs meeting the needs of reviewed utilities should be provided as a tool in an easy-to-use manner.

Comment from Audience: Roger Spinart, General Manager, International Affairs, INPO

When INPO was established, there were four important tasks: (1) To be an organization that can win trust, (2) To obtain and develop reliable staff, (3) To develop official programs and procedures, and (4) Promote a culture of excellence within INPO.

INPO has agreed with JANSI to provide coaching and mentoring. This agreement has incorporated INPO's expectations for Japanese CEOs. For INPO and JANSI to continue partnership, Japanese CEOs' continuous and effective leadership is required for the management of JANSI and the monitoring of operators' nuclear safety.

The following five points are critical to JANSI's success: (1) CEOs' commitment, (2) Reinforcement of nuclear safety first, (3) Industry's strong support (providing open access to power stations and resources), (4) Accountability, and (5) Ensuring independence.

It is important for industry to send highly competent and experienced personnel into JANSI. In particular, the quality of reviewers is extremely important.

【Session 2 (4)】 Framework of leadership program for nuclear safety
(Kugo, Director, Human Resource Development Division)

Commentator: Masatoshi Suzuki, Research Director, Japan Research Institute



Risk is a power to imagine the future. It is necessary to develop human resources who can possess that power.

Training programs need to be developed from the four viewpoints shown below. (1) and (2) are personal while (3) and (4) are organizational.

- (1) Developing human resources with high safety consciousness and high risk awareness
- (2) Developing professional human resources equipped with the knowledge and quality suitable to professional functions within the organization
- (3) Building an organization based on risk awareness, assessment, and corrections made by the very members of the organization and the accumulation thereof
- (4) Constant evaluation and correction of organizational performance

【Session 3 (5)】 Assistance for emergency preparedness of nuclear power facilities
(Honda, Operations Officer, Plant Assistance Division)

Commentator: Kazuhiko Noguchi, Professor, Yokohama National University



JANSI is in a position to provide support, not conducting emergency preparedness drills. Thus, coordination with operators is important.

The merit of being a supporter separated from a performer is to be able to develop guidelines. If a performer develops guidelines, he tends to write “what can be done now.” However, an external supporter would describe the goals to achieve, making it possible to develop more advanced guidelines. People in the field would claim that such goals could not be achieved as it stands now. Essentially, however, that is what guidelines are all about.

To upgrade training, it is essential to sort out what type of accident training is lacking. For training systematization, it is vital to develop a medium-term training plan. During training, it is also important to confirm what the objectives are.

【Session 3 (6)】 Learning from the accident of Fukushima Daiichi NPS
(Nakano, Operations Officer, Operating Experience Analysis Division)

Commentator: Shinichi Kawamura, General Manager, Nuclear Asset Management Department, TEPCO

It is expected of JANSI to provide support in terms of both software and hardware. Hardware conditions will affect software, which will in turn affect hardware. It should be discussed what should be done with hardware to maximize the performance of humane activities, that is software.

The direction of pursuing excellence based on the experience of other industries may be good. It is beneficial to share good practices and support training.

【Panel Discussion】 Closing gaps of PRA application between Japan and other countries

Coordinator: Koji Okamoto (Professor, Graduate School, University of Tokyo)
Panelists: Akira Yamaguchi (Professor, Graduate School, University of Osaka)
Jang-Hwan Na (Deputy Director General, Central Research Institute, KHNP)
Woody Epstein (Lloyd’s Register Consulting)
Yun-Fu Wu (Deputy Director, Nuclear Safety, Taipower)
Kurata, Operations Office, Nuclear Safety Division, JANSI



After short presentations delivered by the coordinator and panelists (Professors Okamoto and Yamaguchi, and Mr. Epstein on the actual PRA use and problems in Japan, and Mr. Na and Mr. Wu on the current status of PRA use in Korea

and Taiwan), a panel discussion was held on the subject of “PRA use and difference from oversea.”

Trusting the numbers of PRA means that the real meaning of PRA is not understood. PRA is to understand the facilities and equipment. (Epstein)

There was a time when KHNP did not use PRA. After the TMI accident, however, KHNP started using PRA in the late 80s. Regulators began to introduce it in 2001 or so. Based on it, feedback has been provided for design. I think we have more feedback from construction than in Japan. It is good to have PSA specialists on site. It may be difficult to use PRA because Japan has no specialist on site. (Na)

It is not true that Japan has no PRA engineers. The problem is that PRA is not used in the field. In Japan, it is mainly used at headquarters. Feedback is not provided for the field. Since PRA has not been understood and used in the field, it has not spread and provided no training incentives. (Kurata)

PRA is not used because there are no incentives to do so. Without incentives, people in the field will not be motivated to learn about it. (Okamoto)

When PRA gained momentum, it would bring the merits of shortened outage, online maintenance, and so forth. Since these are mainly about improving economic efficiency, regulators were not happy about it back then. The merits of PRA are not limited to economic efficiency. There should have been improved safety before that. We failed to explain it. (Kurata)

The message from the U.S.-Japan PRA roundtable in February is that improved safety and improved economic efficiency are compatible. In Japan, they are considered incompatible. This may be because management and field have different risk awareness. It would be good if they could share awareness. More discussions should be promoted. (Yamaguchi)

Absolutely. I think the examples in Korea and Taiwan are good examples of compatibility. It is important how well we should use appropriate tools for nuclear-related risks. (Okamoto)

We had difficulty in explaining it. We learned from the U.S. about how to use PSA. (Na)

The primary problem before 1F was that we did not introduce risks. We cannot reflect on what happened unless we introduce risks into regulation and field. (Okamoto)

It is certainly a difficult question how we should see normative compliance with certain rules and overall risk reduction. As explained in the sessions, the reality is important for PRA. I think it is good to be able to make judgment from various angles, rather than do or do not beyond this or that. How about JANSI to propose how to make judgments? I think it would be a good way that will lead to better regulation in the long run. (Yamaguchi)

I think it is easier to provide incentives. For example, risks have been reduced significantly because of online maintenance. I think it is important to make PRA a usable tool. (Okamoto)

PRA is meaningful in the process, rather than the numbers. PRA is effective in reducing plant risks. However, it is meaningless unless it is used. I think it is an important way of using it to incorporate it into day-to-day field activities for risk reduction. There may be a little difference between the risks perceived by management and field. I think we must catch up the world to make it a risk reduction tool. (Okamoto)

【Closing Remarks】

Takao Fujie, President & CEO, JANSI



On behalf of Mr. Magwood, NRC Commissioner, who was scheduled, but suddenly became unable to participate, Mr. Fujie read his message as summarized below.

- It is necessary and important to have shared understanding and values about the discussions in the Conference.
- Although I think JANSI is showing a right way, ultimate decisions are up to operators. Operators and all people working for power stations should decide whether or not to grant the necessary power to JANSI.
- To make JANSI an organization similar to INPO, the same amount of time cannot be spent as we did in the U.S. The U.S. and the world are paying attention to the progress of JANSI.

Changes in the capacity factor of U.S nuclear facilities were reported together with the transition of the safety regulation system.

Today, lecturers and presenters showed us their insights on the importance that industry itself should pursue safety and suggestions to make JANSI's activities more effective.

JANSI has a mission to “pursue the world's highest level of safety in Japan's nuclear power industry.” We are determined to get all activities off the ground in five years. We will do the best we can to make the functions of JANSI helpful as much as possible by accelerating what can be accelerated.

【Questionnaire Result】 55 forms collected

- The sessions and panel discussion can be considered mostly understood and satisfactory.
- Mr. Kadota's lecture was super. There were multiple opinions claiming that progress was time-pressing.
- There were a large number of opinions claiming “Information was specific and comprehensive,” “Progress was too fast to have understanding,” or “There were sessions without novel information” (particularly from special members).

End