

## **Results of the 3<sup>rd</sup> Review Meeting of the Convention on Nuclear Safety and Preparatory Works for the 4<sup>th</sup> Meeting**

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### **1. Introduction**

The 3<sup>rd</sup> Review Meeting of the Convention on Nuclear Safety (CNS) took place from April 11-22, 2005. Fifty out of fifty-five Contracting Parties (CPs) participated with over 500 delegates in attendance. It was concluded that all CPs in attendance were in compliance with the requirements of the CNS. It was also noted that although the focus tends to be on the triennial national reports and review meetings, the CNS should emphasize an ongoing process that continually promotes the advancement of nuclear safety. With regard to this continuity process, the President of the 3<sup>rd</sup> Review Meeting sent to all the CPs a message to remind of the lessons offered and learned from the Meeting and to put them into action as well. The president also asked that the CPs start in earnest later this year their preparations for the Forth Meeting in 2008. This paper introduces the results of the 3<sup>rd</sup> Review Meeting and presents some suggestions on preparatory works that should be done for the next Review Meeting.

### **2. Results of the 3<sup>rd</sup> Review Meeting**

#### *2.1 Panel Discussion on 'Leadership'*

The 3<sup>rd</sup> Review Meeting held the first ever panel discussion in the first afternoon of the opening plenary on "Nuclear Safety in the Future: the Role of Leadership". The president highlighted the importance of leadership in ensuring a clear vision for organizations responsible for nuclear safety. The panel examined the future challenges to nuclear safety that are arising from leadership issues of both regulators and operators. From the discussion, the panel suggested possible measures to address these challenges including efforts to highlight leadership obligations as an important component and to educate shareholders and executives on the importance of sustained attention to nuclear safety, development of regulatory expectations and guidelines on leadership indicators, and the continued investigation of root causes of events to detect the impact of leadership failure. It was also suggested to develop and adopt a set of standards for nuclear corporate performance by the international nuclear community and to expand sharing of operational experience and the facilitation of peer reviews.

#### *2.2 Review Process*

The CPs have no task to review the safety of individual nuclear installations and have to rely on the accuracy and completeness of the information provided by each CP in its National report and in its answers to the questions asked of it. Additional clarification is provided by the CPs on issues raised during the meeting. Two basic commitments by each CP are necessary for the Convention to be successful: preparing and making available a National Report for review and putting its National Report into a peer review by the other CPs.

The CPs in the 3<sup>rd</sup> Review Meeting observed that the National reports submitted were in most cases of high quality and provided ample information on steps and measures taken and in progress to implement the obligations of the Convention. All questions asked by CPs in the review process were addressed by the respondent Parties and written answers were provided. The discussion in the Country Group sessions and the plenary sessions were constructive, offering insights with regard to safety improvements, and conducive to strong commitment of each participating CP to the objectives of the Convention.

#### *2.3 Summary Report*

Through the review process, a summary report was drawn up with observations on the present state of nuclear safety, existing good practices, challenges and areas for future improvement, and conclusions reached from the national reports, presentations and discussions during the Country Group sessions. The following paragraphs seem worthy to get special attention of regulators and operators of nuclear power plants in Korea.

- P4) Programs on ageing management and maintenance and motivation of the work force
- P7) Interfaces between safety and security at NPPs
- P11) Openness and transparency with all interested parties in maintaining confidence and trust in regulator and operator
- P12) Benefits of instituting low thresholds for informing releases relating to nuclear safety
- P14) Merits of engaging the public in both technical and licensing processes
- P16) Due account of international standards and difficulties in harmonizing with them
- P19) The IAEA's IRRT methodology as an effective tool for improvement of the legislative and regulatory framework

- P24) Convergence towards risk informed regulatory approaches. Integrated safety oversight program with the use of regulatory indicators
- P25) Implementation of quality management systems within regulatory body
- P27) Concerns with regard to overdependence on TSO
- P28) Communication and dialogue between regulator and operator
- P29) Questions about the effective independence of regulatory body
- P36) Broader concept of safety management system
- P42) Efforts to find early warning signs, inferential indicators and ways to promote safety culture
- P46) Timely identification of human performance errors and the implementation of corrective actions
- P50) Bilateral arrangement for emergency preparedness between countries with NPPs and neighboring countries
- P52) Difficulties in emergency preparedness for out-of-country events
- P56) Benefits of PSR in making decisions on continued operation, in evaluating safety upgrades and in obtaining operating experience feedback
- P59) Increasing use of risk-informed decision making
- P61) PSA to augment or supplement deterministic approach
- P62) Risk monitors as a tool for the optimization of configuration and maintenance management
- P64) PSA as a complementary tool in evaluating operational and regulatory activities
- P74) A need to improve the sharing and use of international operational experiences
- P76) Development and implementation of severe accident management programs

### 3. Preparation for the 4<sup>th</sup> Review Meeting

The president of the 3<sup>rd</sup> review meeting sent to all the CPs a message to encourage them to:

- Review the summary report from the 3<sup>rd</sup> meeting and their own notes taken from rapporteur's report, noting the good practices and the challenges that remained to be addressed
- Assess progresses on addressing these challenges and implementing the planned actions to improve safety
- Post a progress report on the available CNS website.

And the president also expressed her hope that all CPs will take the opportunity to reflect on the peer review process and they look forward to starting in earnest later this year their preparations for the forth Review Meeting in 2008.

Considering the timeline and the message, it is time to prepare for the next review meeting. It should be noted

that less than a year is left for the preparation of the national report (See Figure 1). The next national report should address the following items as well as the relevant paragraphs of summary report identified above.

- Leadership challenges in regulator and operator and measures taken to address these challenges
- Efforts to enhance public confidence in Regulator and Operators.
- Validation of methodology to measure Safety Culture
- Resources prepared for expansion of nuclear power generation
- Regulatory use of Risk information for adjusting regulatory attention and inspection maintenance
- Use of socio drama as confidence building measure
- Pilot Application of Maintenance Rule and Risk Monitors

### 4. Conclusion

The results of the 3<sup>rd</sup> review meeting are a starting point to establish implementation plan for safety improvements and to prepare for next national report. It is required to review the summary report and our own notes and take substantial measures for safety improvements. More than a year has passed since the 3<sup>rd</sup> review meeting and less than a year is left for producing the next national report. Efforts to improve safety should be made in continuous process not just for the period of the review meetings. It is time to critically reflect on what we have done after the last review meeting and what we have to do until the next review meeting. More caution should be given not to lose two important keywords obtained from the 3<sup>rd</sup> review meeting: leadership and no complacency on safety.

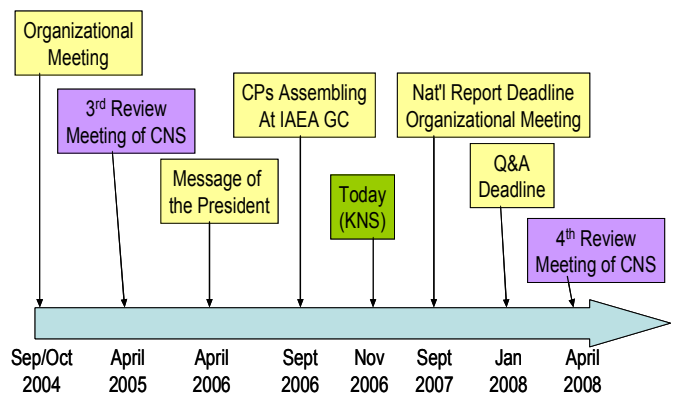


Figure 1. Timeline toward the 4<sup>th</sup> Review Meeting of the Convention on Nuclear Safety

### References

- [1] Summary Report of the 3<sup>rd</sup> Review Meeting of the Convention on Nuclear Safety, 2005