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International Conference on Operational Safety Performance in Nuclear Installations

30 November – 2 December 2005
Vienna, Austria

Organized by the
International Atomic Energy Agency  IAEA



OBJECTIVE

The objective of the conference is to foster the exchange of information on operational safety performance in nuclear installations, with the aim of consolidating an international consensus on:

- the present status of these issues;
- emerging issues with international implications;
- priorities for future work; and
- needs for strengthening international co-operation, including recommendations for future activities for the IAEA, Nuclear Operators and Regulatory Authorities.

AUDIENCE

The conference is directed at a broad range of experts in the area of safe nuclear operations, including professionals from the different disciplines involved in the operations and safety of nuclear power plants, installations in other parts of the fuel cycle and research reactors. It is aimed at both licensees and governmental officials, including persons from regulatory bodies, the industry and academe as well as senior policy makers.

GENERAL THEME

The general theme for this conference will be "how best to reflect lessons learned from the entire entity of operating experiences into; past, present and future reactors".

TOPICS

The following four topics have been identified as subjects for this conference.

Papers related to nuclear installations **other than Nuclear Power Plants (NPPs)** are welcome. The conference will also accept papers related to industry programs and facilities, **other than nuclear**, so as to enrich discussions and provide a wider background on practices related to the management of safety worldwide.

1. How best to learn from and share operational safety experience and manage changes during all life cycle phases?

- methods used to clearly identify, analyze and crystallize operating experience into a consistent, coherent and usable comprehensive system of knowledge

- use of internal and external Operational Experience Feedback to ensure lessons learned elsewhere are applied, in order to avoid recurrence of events
- breaching artificial barriers to improve sharing of safety related information
- use of self sustaining networks and information technology methods to leverage resources
- role of the IAEA OSART and PROSPER safety related services in evaluating capabilities of operating organizations to utilize operating experience
- Management commitment to continuous improvement, benchmarking
- better use of good practices
- effective corrective action programme – analysis beyond direct cause, management commitment to complete corrective action programme
- optimizing use of low level events and near misses – trending of precursors, management commitment to be pro-active rather than reacting to significant events
- overcoming complacency, overconfidence, loss of safety focus in a production versus safety environment
- transfer of responsibility, accountability
- outage management and configuration management
- safety focus during the last period of operation before decommissioning
- communication to the staff
- learning from commissioning activities in a diversified environment

2. How best to learn from and share experiences on regulatory management systems and to harmonize regulatory approaches?

- effectiveness of oversight and inspection techniques
- goals of management systems
- self assessment of regulatory body performance
- structure of the management systems, models of excellence
- quality assurance in management systems
- quality management system certification
- role of IAEA Safety Standards in harmonizing national requirements
- role of IAEA IRRT in promoting regulatory consistency
- establishing the right balance in using, in a complementary manner, both deterministic and probabilistic approaches during design, operations and regulatory activities
- the timing of senior regulatory intervention
- experiences from the Asian Nuclear Safety Network (progress and implementation)

3. How best to achieve and ensure the safety of extended operations?

- need for standards for the transition from "normal operations" to the period of operations beyond the design assumptions

- different regulatory approaches for authorizing extended operations
- preconditions and tools needed for safety analysis demonstrating that the plant will continue to operate within its design envelope:
- sound knowledge of the current design basis
- accurate knowledge of the actual state of the plant
- verification that adequate safety margins will be maintained
- aging management in the broadest context, addressing both equipment and personnel issues
- creating international databases on aging related lessons learned, experience gained from long term operation and results from international research programmes

4. How best to ensure that a global regime of operating experiences is reflected into the design, construction, commissioning and operation of new and evolutionary reactors?

- foundations of management for ensuring the use of operating experiences
- international cooperation needed by multicultural projects for new reactor design, construction and operation
- managing changes resulting from operating experiences during design and commissioning of new reactors
- determining the roles and responsibilities of vendors during the design, construction, commissioning and operation of nuclear installations
- managing changes caused by operating experiences in organizational and human factors
- safety management of contractors including authorization and control
- ownership of design conscience for new and evolutionary reactors.

KEY DEADLINES

28 July, 2005 – contributed papers (electronic version)

28 July, 2005 – paper submission forms (Form B)
grant application forms (Form C)