



IAEA

International Atomic Energy Agency

Atoms for Peace

TOPICAL PARALLEL SESSIONS

**Learning from the Past, Going Forward
Safety Culture Oversight
Building Culture for Safety**

Mr Fred Demarkar



IAEA

International Atomic Energy Agency

Atoms for Peace

Overview

- **17 Presentations**
- **Three Co-Chairs**
 - Day 2 – M. Steinberg (Ukraine)
 - Day 3 – I. Kubánová (Czech Republic)
 - Day 4 – F. Dermakar (Canada)



IAEA

International Atomic Energy Agency

Atoms for Peace

Themes

- **Experience with Safety Culture (SC) and Assessment Methods**
- **Unique or new approaches to Safety Culture**
- **Regulatory Oversight of Safety Culture**
- **Enhancing Supplier Safety Culture and Human Performance**



IAEA

International Atomic Energy Agency

Atoms for Peace

Experience with SC and Assessment Methods

- **Presentations by**
 - N. Mataji Kojouri (Iran)
 - P. Kotin (Ukraine)
 - A. M. Bomben (Argentina)
- **Use of independent and self assessments to identify gaps in performance**
- **FORO Project on Safety Culture has produced a reference for developing a program for promotion and development of SC**
 - Scope: medical, industrial and research activities; waste management; transport of radioactive material
 - Includes: Indicators of SC; practical ways to promote / develop a strong SC
 - Plans to translate to other languages



IAEA

International Atomic Energy Agency

Atoms for Peace

Unique or New Approaches to Safety Culture

- **Presentations by**
 - P. H. Seong (Korea)
 - E. Gisquet (France)
- **Use of Social Network Analysis to quantify “shared values” based on definitions of safety culture competencies**
- **Assessing the benefits of centralized response (from the MCR) and decentralized response (from the ERC) to identify opportunities for optimizing flexibility in response.**



IAEA

International Atomic Energy Agency

Atoms for Peace

Regulatory Oversight of Safety Culture (1/2)

- **Presentations by**
 - K. Heppell-Masys (Canada)
 - A. Smetnik (Russian Federation)
 - J. T. Kim (Korea)
 - P. Oedewald (Finland)
 - J. Beck (Germany)
 - B. Bernard (Belgium)
 - M. C. Tronea (Romania)
- **The regulatory bodies have developed an oversight of safety culture and, as they continuously learn from experience they are adjusting their oversight approach.**
- **As a part of the sociotechnical system, the regulatory body must also ensure its own safety culture is assessed via a sound process.**



IAEA

International Atomic Energy Agency

Atoms for Peace

Regulatory Oversight of Safety Culture (2/2)

- **Regulators collect safety culture information from various means: safety culture information can be gathered from general inspections, specific SC assessment or via the assessment of leadership for safety.**
- **Specific Training for inspectors in the oversight of SC is essential as it is complementary to their typical education in engineering.**
- **The consultation with all stakeholders including the general public on new regulatory initiatives or policies as is done in Canada is very positive in developing the Safety Culture Oversight approach for all types of nuclear facilities/activities.**



IAEA

International Atomic Energy Agency

Atoms for Peace

Enhancing Supplier SC & Human Performance (1/3)

- **Presentations:**
 - T. Reiman (Finland)
 - R. J. Duncan (INPO)
 - D. Dennier (Canada)
 - L. Clewett (Canada)
 - B. de l'Épinois (France)
- **As a part of the sociotechnical system, suppliers play an increasingly important role in the entire life cycle of a nuclear installation**
- **Suppliers must own and implement a strong Safety Culture and Human Performance program led by their senior leadership**



IAEA

International Atomic Energy Agency

Atoms for Peace

Enhancing Supplier SC & Human Performance (2/3)

- **Utilities have observed similar recurring issues from different suppliers.**
 - No infrastructure or expectations for sharing lessons learned amongst suppliers.
 - Attitudes towards sharing varied widely.
 - Core issue: risk of sharing information that may be linked to commercially sensitive information
- **Collaboration has the potential to allow suppliers to significantly enhance their safety culture and human performance**
 - Between supplier and utility to align their programs and work towards the same objectives
 - Within the supplier community
 - Between suppliers and their sub-suppliers



IAEA

International Atomic Energy Agency

Atoms for Peace

Enhancing Supplier SC & Human Performance (3/3)

- **Practical approaches**
 - WANO SC Principles & INPO principles for excellence in nuclear supplier performance provide reference for supplier self assessment
 - INPO and COG have established communities of practice for suppliers to exchange experience and lessons learned
 - Fennovoima has developed a joint safety culture policy statement with its suppliers for its new build project
- **Path Forward**
 - Improved partnerships between utilities and suppliers
 - Database to share industry feedback on supplier performance
 - More consistent industry standards and expectations of suppliers
 - Continually modifying and adjusting programs to accommodate changing demographics and new entrants to the workforce
 - Cascading to sub-suppliers

Thank you!

