Synthesis of questionnaire survey
OUTLINES

1. General features
2. Questions
3. Member States
4. Questionnaire synthesis
General features

- **Scope**: national regulatory approaches used in the oversight of safety culture
- **Coordination**: the IAEA used as a basis the questionnaire prepared by OECD/NEA and addressed to OECD Member States last May in preparation for the 10th International Nuclear Regulatory Inspection Workshop organized by OECD/NEA
12 questions

Q1- Are there any regulatory requirements related to safety culture in your organization? Yes / No

Q2- If yes, describe the regulatory requirements.

Q3- In the absence of regulatory requirements, how does your regulatory body convey its expectations regarding the importance of safety culture for nuclear safety and the promotion of safety culture, (e.g. the content of a safety culture programme and the need to be proactive) to operators/licensees?

Q4- How does your organization oversee compliance with its safety culture expectations for operators/licensees (e.g. routine inspections, special inspections, inspection criteria) in the absence of regulatory requirements?

Q5- How does your oversight programme convey to operators/licensees that the organization’s expectations for the implementation of a safety culture programme have or have not been met (e.g. management meetings, documentation of inspection findings, enforcement or regulatory actions)?

Q6- How does your organization train its staff in the oversight of safety culture (e.g. does it use experts educated in this area, and/or does it train its inspectors)?
Q7—How does your organization avoid subjectivity and maintain consistency when overseeing safety culture?

Q8—How does your organization fairly communicate findings in the area of safety culture to external stakeholders (e.g. other operator/licensees and the general public) to ensure that its findings are not mischaracterized or taken out of context?

Q9—How does your organization assess the effect of safety culture on decision making process of operators/licensees (e.g. performing maintenance or equipment testing in a plant configuration that meets technical specifications and regulatory requirements but reduces the margin of safety)?

Q10—What have been the outcomes and findings associated with your oversight of the safety culture of operators/licensees?

Q11—What problems or difficulties did you recognize in dealing with safety culture oversight?

Q12—What would you like to learn about the oversight of safety culture at the technical meeting?
## List of Member States who answered

- Belgium
- Bulgaria
- Canada
- Finland
- France
- India
- Indonesia
- Italie-Enel
- Lithuania
- Mexico
- Pakistan
- Romania
- Slovenia
- Sweden
- Switzerland
- UK
- Ukrainia
- USA
• About 50% MS mentioned having no regulatory requirements related to SC

• When existing, requirements are addressed at the law level for example, in Government Decree on the Safety of nuclear power plants, in Nuclear Energy Act, in ordinance on nuclear energy.

• Reference to IAEA GS-R-3, in particular, requirement 2.5 “the management system shall be used to promote and support a strong SC…”
Question 3 - Trend

- Interventions at the senior management level, using meetings and discussions
- Annual inspection reports
- Guidance documents approach
- Seminars and conferences
- SC working group together with operators/licensees
Question 4 - Trend

• Incorporating inspections against SC expectations into routine inspections.

• Overseeing SC through the licensee SC self-assessment

• Targeted SC reviews, triggered by findings or by incidents

• Analysis of safety relevant events

• The process for consolidation of data gathered during those inspections is not really described in the answers.
Question 4 - Trend - The topics reviewed

- Low threshold and blame free reporting culture,
- Sufficiency of resources and appropriate qualification of staff,
- Quality of safety reviews in modification process,
- Knowledge of work processes and compliance with procedures,
- Definition of responsibilities,
- Questioning attitudes of plant staff,
- General attitudes towards the regulator,
- Housekeeping and material conditions of plant,
- Effectiveness of problem identification,

- Evaluation and resolution,
- Sub-contracting processes,
- Quality of written documents,
- Workload,
- Safety leadership,
- Managing critical people in the organization,
- Proactive tools (e.g. pre-job briefings, operational decision making),
- Self/independent assessments

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Question 5 - Trend

Means

• Reports on a yearly basis
• Meetings at the senior management level

Content

• Findings and corrective actions
• Good practice and areas for improvement warranting further discussion.
• Not standing alone artifact but discussed together with other technical and safety related issues.
Question 6 - Trend

- MS trained their inspectors in SC
- SC is integrated in regular training inspector curriculum
- Newcomers can benefit from training on SC
- Knowledge of SC is conveyed through attendance to international workshops or internal seminars
- SC specialists covering background such as psychology and sociology.
- The answers provided us with very limited information regarding the content of the SC training developed
Several data collection techniques
Facts are collected
Pair and/or team opinion
Design oversight principles (1) transparent; 2) understandable; 3) objective; 4) predictable; and both 5) risk-informed and 6) performance-based.
Generic questionnaire
Training
The trend is YES
General statements on safety culture like „this plant has a good safety culture” are avoided
Question 9 - Trend

- Observations of work groups, *for example during pre-job briefings*
- Probabilistic risk analysis
- Part of our technical inspection
- Not analyzed
A global picture on safety culture

Some findings

• *Licensee’s approach to the self-assessment of safety culture,*

• *Difficulties to give priority to safety in certain real-time decision-making situations* &

• *The work pressure in achieving production targets/keeping to the schedule of outages could be a major cause affecting safety culture.*

• *Changes in NPP organization structure and personnel in order to archive the NPP decommissioning goals.*

• *Openness to the RB is selective*

• *Initiating a self-reflection process with the licensees is of a considerable value*
Question 11 - Trend

• Lack of:

- a common understanding of the concept of safety culture
- social and psychological background of the inspectors
- clear and measurable criteria for SC evaluation and assessment

• Diversity of facility types
THANKS FOR YOUR ATTENTION

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