TECHNICAL MEETING ON INTEGRATION OF SAFETY CULTURE INTO REGULATORY PRACTICES AND THE REGULATORY DECISION MAKING PROCESS

INTEGRATION OF SAFETY CULTURE INTO MANAGEMENT SYSTEM OF REGULATORY BODY

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Content of the presentation

- Regulatory body of the Republic of Lithuania
- Implementation of integrated management system
- Integration of safety culture into the management system
Nuclear Facilities in Lithuania

**Ignalina Nuclear Power Plant**

- Unit 1 (RBMK-1500), operation during 1983-2004
- Unit 2 (RBMK-1500), operation during 1987-2009

**Nuclear facilities on the site of INPP**

- Interim spent fuel storage facility
- Radioactive waste storage facility
- Liquid radioactive waste storage facilities
- Construction of new interim spent fuel storage facility
- Construction of solid radioactive waste management facility
- Construction of SLVLLW radioactive waste storage facility
- Preparatory activities for construction of other different type radioactive waste management facilities (disposal, storage facilities and also repositories)

**Maišiagala radioactive waste storage facility**

**Preparatory activities for construction of the new NPP**
Nuclear and radiation safety regulatory infrastructure in Lithuania
(main institutions)

- President
- Parliament
- Government

Ministry of Social Security and Labour
Ministry of National Defence
Ministry of Health Care
Ministry of Environment
Ministry of Interior
State Security Department

State Nuclear Power Safety Inspectorate (VATESI)
State Territorial Planning and Construction Inspectorate
State Border Guard Service
Radiation Protection Centre
Ministry of Social Security and Labour
Labour inspection

Environmental Protection Agency
Department of Fire Protection and Rescue

Local Authorities
VATESI Organizational Structure

Total number of job positions in organization – 75
MISSION OF VATESI - State regulation and supervision of nuclear facilities and activities, related to the nuclear and nuclear fuel cycle material, in order to protect the people and environment against hazard effect of ionising radiation.

STRATEGIC OBJECTIVE OF VATESI – To seek, through the state regulation and supervision, to ensure high level of nuclear power safety.

PROGRAMME
Regulation and supervision of nuclear power safety

2 AIMS OF THE PROGRAMME
- To ensure effective regulation and supervision of nuclear power safety.
- To ensure proper nuclear power safety regulatory system in the state.

TASKS, ACTIVITIES
Implementation of integrated management system
The project "IMPLEMENTATION OF INTEGRATED MANAGEMENT SYSTEM AT VATESI" started at March, 2013

Main purposes of the project:
1. to improve VATESI management system based on the ISO 9001 and GS-R-3 requirements;
2. to certify VATESI management system based on the ISO 9001 requirements;
3. to develop and implement IT support tools for the main internal VATESI processes.
# Timetable of main project activities:

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<th>Activity of the project</th>
<th>2013</th>
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<td>Implementation of the management system</td>
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<td>Development of computerised process management system</td>
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Main steps of the project

Part 1
- Implementation of the management system
- Training
- Preparation of technical specifications for computerization of management system

Part 2
- Certification against ISO 9001

Part 3
- Computerization of management system (minimum 12 processes/activities)
Integration of the elements of management systems

- Quality, based on the ISO9001
- Environmental Protection (legal req., ISO14001 as recommendation)
- Health and Safety
- Security, technical safety
- Effectiveness (based on the strategic management requirements)
- IT systems, safety of information

GS-R-3, Priority - SAFETY
The following processes are already approved or under preparation:

1. Preparation of legal acts;
2. Provision of consultations;
3. Licensing;
4. Supervision of licensees;
5. Review and evaluation of safety submittals;
6. Inspections;
7. Enforcement measures;
8. Control of non-proliferation related issues;
9. Management of international cooperation;
10. Management of emergency situations in case of the nuclear accident;
11. Public communication;
12. Management of documents and records;
13. Management of information and interrelations among processes;
14. Management of personnel and knowledge;
15. Development of organizational culture;
16. Management of procurement;
17. Management of infrastructure and working environment;
18. Management of IT infrastructure and information systems;
19. Identification and management of environmental aspects;
20. Management of the health and safety of employees;
21. Strategic management;
VATESI IMS procedures (3/3)

22. Management of finances;
23. Management of processes;
24. Management review and improvement of IMS;
25. Internal audits;
26. Monitoring of interested parties;
27. Management of risks;
28. Management of nonconformancies and corrective actions;
29. Management of regulatory and operational experience;
30. Project management.
What we did

1. Contract with a competent external experts.
2. Identification of relevant requirements of GS-R-3 and ISO 9001 and understanding what it means for the regulatory body to meet them.
3. Gap analysis of existing management system.
4. Securing top management commitment.
5. Preparing the organization to the implementation of IMS (trainings, interviews with the external experts etc.).
6. Developing of the strategy, plan and schedule of implementation.
7. Creating process approach – defined processes and interaction between processes, assigned owners of the processes.
8. Written procedures for each process, forms, performance indicators, risks etc.
9. Training of internal auditors (9 persons).
10. Internal audits in full scope of IMS. (in progress…)
11. Defining processes/activities for the computerization (case study).
12. Contract with an IT company for establishment of relevant IT systems (based on Share Point).
What we are going to do

13. Improvements of IMS according to the findings of internal audits.
15. Final trainings.
17. Continual improvement of IMS.

IRRS mission (2016) – good way to assess IMS.
Integration of safety culture into the management system
Regulation and control of the nuclear safety and specifically safety culture related issues are closely related with the safety culture of the regulatory authority itself. Regulatory and control practice should be based on the proper application of the safety culture understanding in order to ensure that the regulatory authority:

1. devote proper attention to the safety related issues;
2. is capable also to regulate and control the safety culture within the nuclear facility;
3. does not affect safety culture of the licensee negatively because of the unclear regulations or unnecessary bureaucratic burden, created by the incompetent regulatory authority.
Safety culture within the regulatory authority (2/2)

The following issues in this respect can be highlighted:

1) Competency of the regulatory staff.

2) Properly developed integrated management system of the regulatory authority.

3) Clear, consistent regulatory documents.

4) Properly oriented regulatory control.

5) Management commitment.

6) Graded approach.

Etc…
IAEA Safety culture characteristics and attributes (GS-G-3.1)

- Safety is a clearly recognized value
- Leadership for safety is clear
- Safety is integrated into all activities
- Accountability for safety is clear
- Safety is learning driven
What we did

Process of Development of organizational culture was established. Process owner – management representative for IMS.

Main goals of this process:

- Promote appropriate performance of the employees in the activities which can affect the level of safety culture;
- Regularly assess the level of safety culture in the organization;
- Promote SAFETY FIRST attitude in the decision making processes.

Mechanisms of practical implementation of the aspects of safety culture (GS-G-3.1) are defined in the IMS procedure Development of organizational culture.

Other process owners are encouraged to identify influence of the process to nuclear safety and apply graded approach to the aspects of safety culture.
Safety culture attributes reflected in the IMS documentation (1/3)

—**Safety is a clearly recognized value:**

The high priority given to safety is shown in documentation, communications and decision making (core processes – Preparation of legal acts, Provision of consultations, Licensing, Supervision of licensees, Review and evaluation of safety submittals, Inspections, Enforcement measures, Control of non-proliferation related issues...)

Safety is reflected in the business plan (Management processes – Strategic management, Management of finances)

—**Leadership for safety is clear:**

Senior management is responsible for ensuring a common understanding of the key aspects of safety culture within the organization (Organizational policy, IMS manual, procedures, meetings...)

Leadership skills are systematically developed (trainings, meetings...)

Management ensures that there are sufficient competent individuals (management processes – Management of personel and knowledges, Management review and improvenment of IMS, IMS manual...)
Safety culture attributes reflected in the IMS documentation (2/3)

—Accountability for safety is clear:

Roles and responsibilities are clearly defined and understood (IMS procedures, work instructions)

A high level of compliance with regulations and procedures (internal audits, self-assessment)

Management delegates responsibility with appropriate authority to enable clear accountabilities to be established (organizational structure, IMS procedures...)

—Safety is integrated into all activities:

The quality of processes, from planning to implementation and review, (as well documentation) is good (Process management, Risk management, Internal audits...)

Individuals have the necessary knowledge and understanding of the work processes (IMS procedures, work instructions)

Cross-functional and interdisciplinary cooperation and teamwork (Management of processes, Management of information and interrelations among processes, other IMS procedures)
Safety culture attributes reflected in the IMS documentation (3/3)

—**Safety is learning driven:**

Open reporting of deviations and errors is encouraged (Management of nonconformanices and corrective actions, Management review and improvement of IMS)

Internal and external assessments, including self-assessments, are used (Internal and external audits, self-assessment (SARIS), questionairs)

Organizational experience and operating experience (both internal and external to the facility) are used (Management of regulatory and operational experience)

Systematic development of individual competences (Management of personnel and knowledge)
What we need to do

Continual improvement based on findings of internal audits, IRRS mission, questionnaires, monitoring of interested parties, good practice from international colleagues etc...
Thank you for your attention!