Safety Culture Oversight Projects in the Framework of the **Norwegian Cooperation Programmes** with **Bulgaria** and **Romania**

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OUTLINES

1. Context of the two Projects: *the Regional Excellence Programmes on Safe Nuclear Energy – Norwegian Cooperation Programmes with Bulgaria and Romania*
2. Fundamental principles of the Bulgarian and Romanian Safety Culture Oversight Programmes (SCOP)
3. Activities of the two Projects
4. Outcomes for the participating organizations
5. Outcomes for the Agency and the Member States

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1. CONTEXT OF THE TWO PROJECTS (1)

- Risk Informed Regulation
- Knowledge Management
- Emergency Preparedness
- Risk Management Methods
- Management System
- **Safety Culture**

CNCAN 2 Project: **"Enhancement of CNCAN's capability to assess the Safety Culture of its licensees"**

1. CONTEXT OF THE TWO PROJECTS (2)

- Emergency Preparedness
- **Safety Culture**

BNRA 1 Project: **"Enhancement of BNRA's capability to assess the Safety Culture of its licensees"**

2. BNRA 1 AND CNCAN 2 PRINCIPLES

- The appointment of a “safety culture team” in the regulatory body
- The wish expressed to integrate safety culture into the current surveillance activities:
  - *“We are already identifying safety culture data through our surveillance programme, though we need to systematize data collection and analysis”*
  - *“We do not have resources to hire safety culture specialists, neither to implement specific inspections on safety culture”*
- The need of appropriate training courses dedicated to the inspectors
- The use of the IAEA safety culture attributes as the basis for the safety culture oversight programme to be developed

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3. MAIN ACTIVITIES OF THE TWO PROJECTS

- Expert mission to gather data on the initial situation of safety culture oversight and understand the needs of the regulatory body
- Workshops to define a safety culture oversight programme and develop related guidelines
- Workshops to develop training courses materials
- Expert mission to perform training courses
- Expert missions to implement a pilot project (Romania)

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4. MAIN OUTCOMES FOR CNCAN AND BNRA

4.1. Safety culture oversight programme and related guidelines

4.2. Training materials on safety culture oversight

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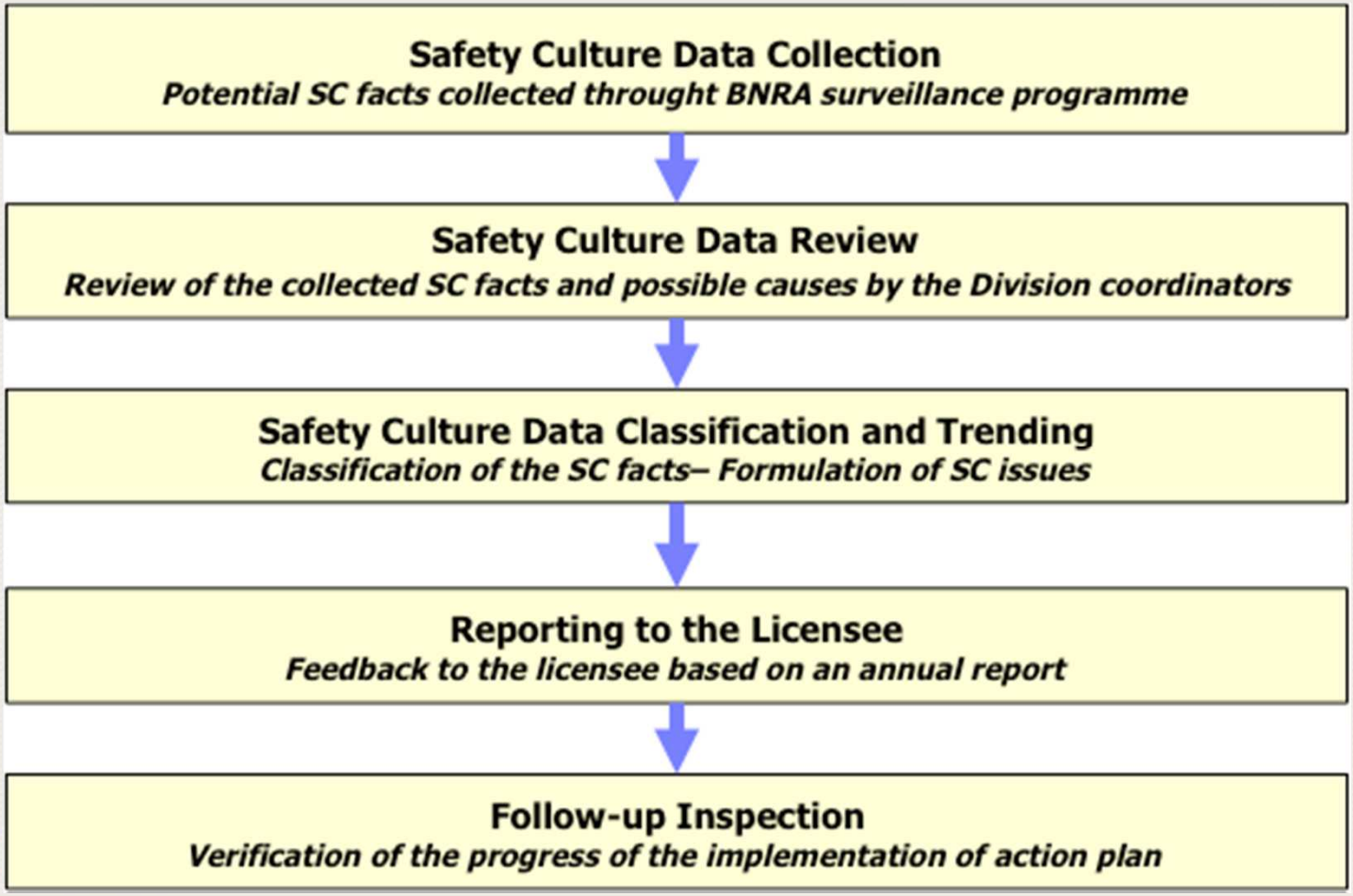
4.1. SAFETY CULTURE OVERSIGHT PROGRAMME AND GUIDELINES

BNRA's Safety Culture Oversight Process



4.1. SAFETY CULTURE OVERSIGHT PROGRAMME AND GUIDELINES

CNCAN's guidelines structure (1)

- Purpose and scope
- Applicability
- References, definitions and abbreviations
- Responsibilities
- Description of the Safety Culture Oversight Process
- General guidance for collecting and analysing information related to safety culture

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4.1. SAFETY CULTURE OVERSIGHT PROGRAMME AND GUIDELINES

CNCAN's guidelines structure (2)

- Data collection sheet
- Assessment sheet
- Annual report
- Database inputs and outputs
- SCOP flowchart
- Detailed guidelines

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4.2. TRAINING MATERIALS ON SAFETY CULTURE OVERSIGHT

Contents of CNCAN and BNRA training programme

- Key concepts on Organisational Culture
- Development of the Safety Culture concept by the IAEA
- Characteristics and attributes of a positive safety culture
- Safety Culture Oversight Programme and guidelines
- Data collection techniques
- Practical exercises on safety culture oversight

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5. MAIN OUTCOMES FOR THE IAEA AND THE MEMBER STATES

5.1. Safety culture evaluation items for assessment and oversight purposes

5.2. Consolidation of an international network of safety culture specialists

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5.1. SAFETY CULTURE EVALUATION ITEMS (1)

CHARACTERISTIC 1: SAFETY IS A CLEARLY RECOGNIZED VALUE

- The high priority given to safety is **demonstrated** in communication and decision-making and **reflected** in documentation
- Safety is a primary consideration in the allocation of resources
- Individuals are convinced and **there is evidence** that safety and production go hand in hand
- A proactive and long term approach to safety issues is shown in decision making
- Safety conscious behaviour is socially accepted and supported

CHARACTERISTIC 2: LEADERSHIP FOR SAFETY IS CLEAR

- Commitment to safety is evident at all management levels **including corporate management**
- There is visible leadership showing the involvement of management in safety related activities
- Management seeks the active involvement of individuals in improving safety
- **Management considers factors affecting work motivation and job satisfaction**
- Relationships between managers and individuals are built on trust

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5.1. SAFETY CULTURE EVALUATION ITEMS (2)

CHARACTERISTIC 3: ACCOUNTABILITY FOR SAFETY IS CLEAR

- An appropriate relationship with the regulatory body exists, which ensures that the accountability for safety remains with the licensee
- Roles and responsibilities are clearly defined and understood
- There is a high level of compliance with regulations and procedures
- Management delegates responsibility with appropriate authority to enable clear accountabilities to be established
- "Ownership" for safety is evident at all organizational levels and for all individuals and **reflected in work environment and plant conditions**

CHARACTERISTIC 4: SAFETY IS INTEGRATED INTO ALL ACTIVITIES

- Consideration for all types of safety, including industrial safety and environmental safety, and of security is evident
- **Processes, from implementation to review, ensure that an adequate level of safety is maintained**
- **Safe working conditions exist with regard to time pressures, work load and stress**
- **Cooperation and teamwork ensure that an adequate level of safety is maintained**
- **Factors affecting human performance are considered**

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5.1. SAFETY CULTURE EVALUATION ITEMS (3)

CHARACTERISTIC 5: SAFETY IS LEARNING DRIVEN

- A questioning attitude prevails at all organizational levels
- Open reporting of deviations and errors is established and supported
- Internal and external assessments, including self-assessments, **contribute to continuous improvement**
- Operating experience (both internal and external to the facility) **contributes to continuous improvement**
- Safety performance indicators are tracked, trended, evaluated and acted upon
- There is systematic development of individual competences **including leadership**

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5.2. INTERNATIONAL NETWORK OF SAFETY CULTURE SPECIALISTS (1)

Type of Organization	Country (Organization)
Licensees	Belgium (Electrabel)
	Brazil (Eletronuclear)
	Spain (Almaraz Trillo)
	Switzerland (BKW-FMB)
	UK (Magnox)
Regulatory Bodies	Canada (CNSC)
	Finland (STUK)
	France (ASN)
	Slovenia (SNSA)
	Switzerland (ENSI)

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5.2. INTERNATIONAL NETWORK OF SAFETY CULTURE SPECIALISTS (2)

Type of Organization	Country (Organization)
Technical Support Organizations	France (IRSN)
	Norway (IFE Halden)
	Spain (CIEMAT)
	USA (INPO)
Consultants	Canada (ex-IAEA staff)
	Germany (ex-IAEA staff)
	Netherlands (Researcher)
	UK (ex-IAEA staff)

20 experts involved, from 13 countries

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CONCLUSIVE REMARKS

- Positive dialogue between regulators and licensees recognized as a paramount means for fostering safety culture
- Commitment of the participating organization's directors and inspectors as a success factor
- Implementation as a decisive stage of the projects

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