ENSREG
European Nuclear Safety Regulators Group

Topical Peer Review II
Fire protection
at nuclear installations

Introduction to TPR II topic, process and overall findings

Sylvie Cadet-Mercier - TPR II Board Chair – ASNR France

TPR II - Second Stakeholder Meeting

1 Introduction

2 TPR II process

3 Peer review

4 Overall findings

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Introduction

Topical peer review

Purpose of the topical peer review

To provide a mechanism for EU Member States **to examine topics of importance to nuclear safety**, **to exchange experience** and **to identify opportunities to strengthen nuclear safety**

- ✓ Enable participating countries to **review their provisions** for fire protection to identify strengths and weaknesses
- ✓ Undertake a European **peer review to share operating experience** and **identify findings**: common issues or challenges at EU-level, good practices, areas of good performance and areas for improvement
- ✓ Provide an open and transparent framework for participating countries to develop appropriate follow-up measures to address areas for improvement

Fire protection

- Fire **among the significant risks** for many nuclear installations
- Capable of challenging multiple structures, systems and components (SSCs) simultaneously and therefore a **possible cause of common cause failures**
- Can involve nuclear and/or radioactive materials and lead to **release and dispersion**
- **Can be induced** by other hazards or events
- **Can induce** other internal hazards (e.g., flooding, explosion)

Fire protection covers **fire safety analysis**, **fire prevention**, **active and passive fire protection** from a **nuclear safety** perspective

TPR II process

Phase 0 : Preparation

- Choice of the topic
- Lessons learnt from the former TPR
- **Terms of reference (TOR)**
- **Technical specifications**
- Experts nominations

Phase 1 : National self assessment

- National assessment with regard to WENRA technical specifications
- Publication of the reports (NAR)

Phase 2 : Peer review

- Peer review (desktop review, site visits, workshops)
- Peer review reports (**summary report, country review reports**)

Phase 3 : Follow-up

- National action plans
- ENSREG plan

TPR II process

- The **Terms of Reference** document indicates the process for the topical peer review (desktop review, site visits, workshops, outputs…)
- The **Technical Specification** defines the structure and content of national assessment reports and by providing a reporting template. The scope of nuclear installations to be covered by the TPR was defined by WENRA
- The review by the TPR experts organised by **thematic areas**:
  - ✓ **fire safety analyses**
  - ✓ **fire active protection**
  - ✓ **fire prevention and passive protection**
- The review by the TPR experts reported by **country**

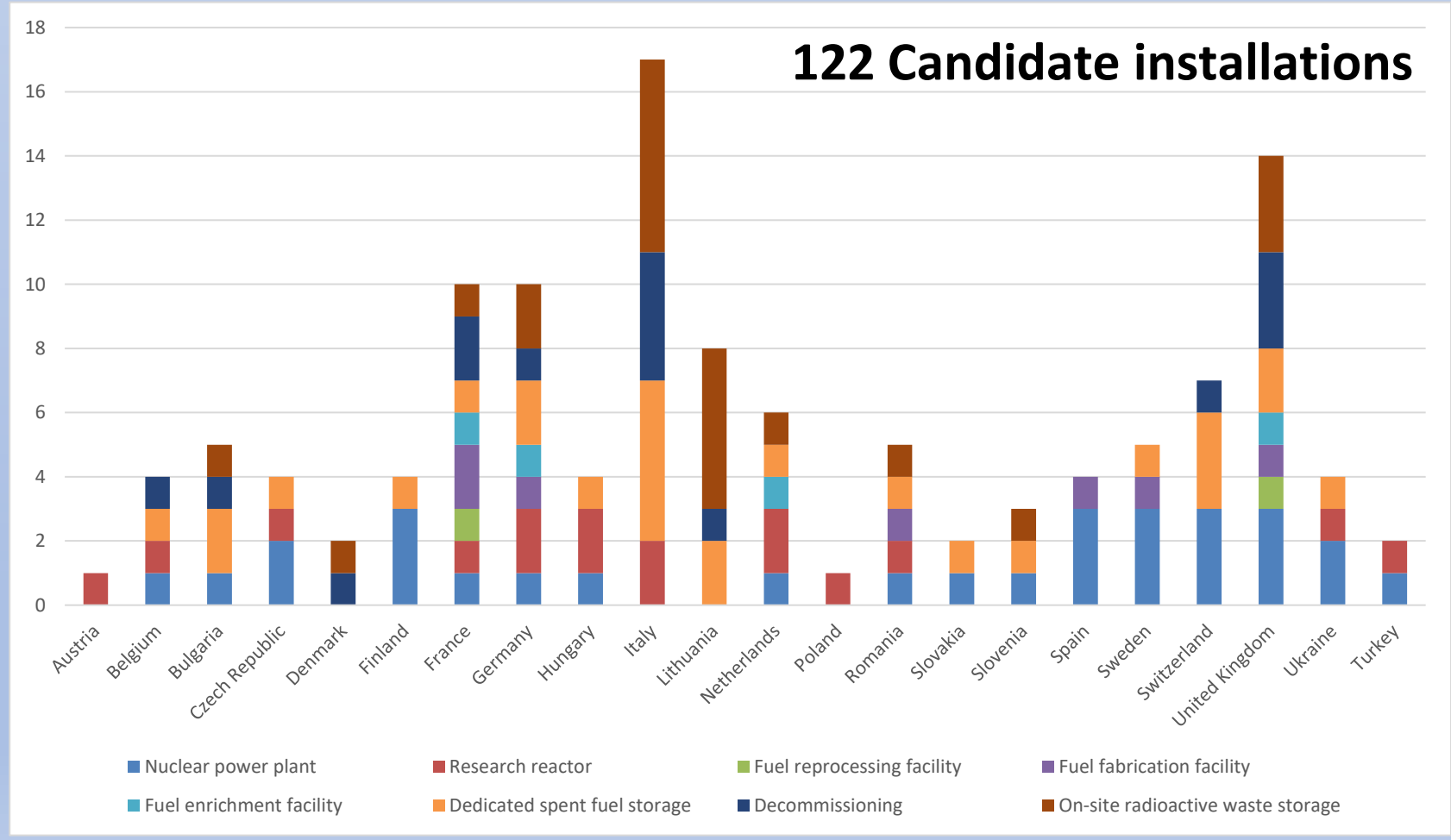
2nd Stakeholder meeting

Peer review

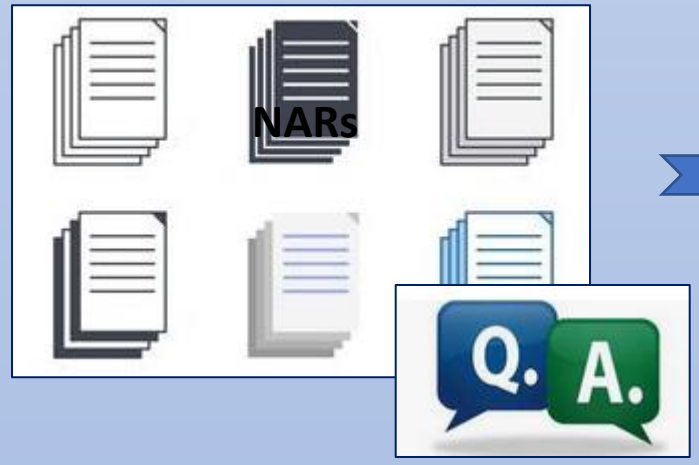
Topical Peer Review II

Fire protection at nuclear installations

42 experts from 17 countries + EC



From the NARs to the summary report

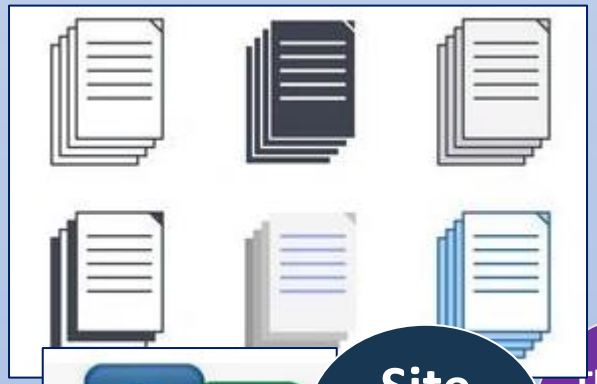


Commonalities and differences on topics

- ✓ identification of **topics of interest (TOI)** discussed within the TPR Team Group
- ✓ reflected in the **draft summary report** (for each topic, background and aspects to be discussed)

- ✓ discussion on these **TOIs** with the participants (licensees, regulators)
- ✓ conclusion with overall points of consensus, divergences, potential '**good practices**' and '**challenges**' for all sub-topics, based on the discussion

From the NARs to the country review reports



- ✓ identification of **specific finding** to a given installation
- ✓ discussed within the TPR Team Group
- ✓ reflected in the **draft country review report**

- ✓ discussion on these national **findings** with the country representatives (licensees, regulators)
- ✓ conclusion on national **findings** (CSF) based on the discussion between the TPR Team and the country representatives

2nd Stakeholder meeting

Overall findings

Topical Peer Review II

Fire protection at nuclear installations

Consideration of information provided during the thematic sessions

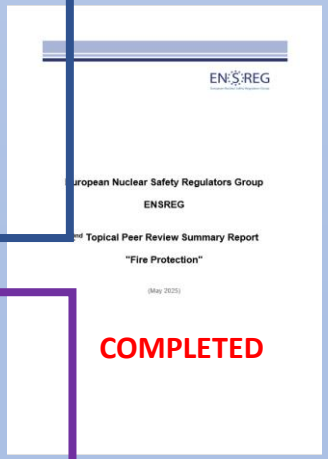
- ❑ Identification of good practices and challenges based on the discussions

4

- Use of experience feedback
- Fire safety analyses
- Fire prevention

3

- Use of experience feedback
- Fire safety analyses
- Fire prevention



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2nd Stakeholder meeting

Overall findings

Topical Peer Review II

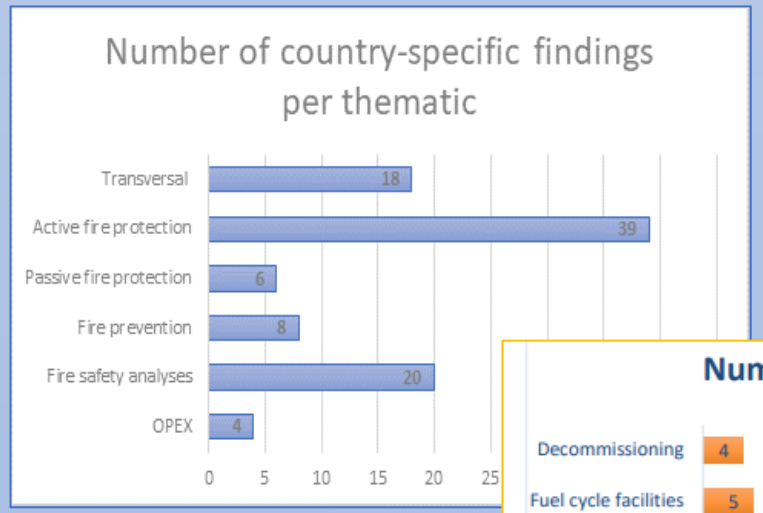
Fire protection at nuclear installations

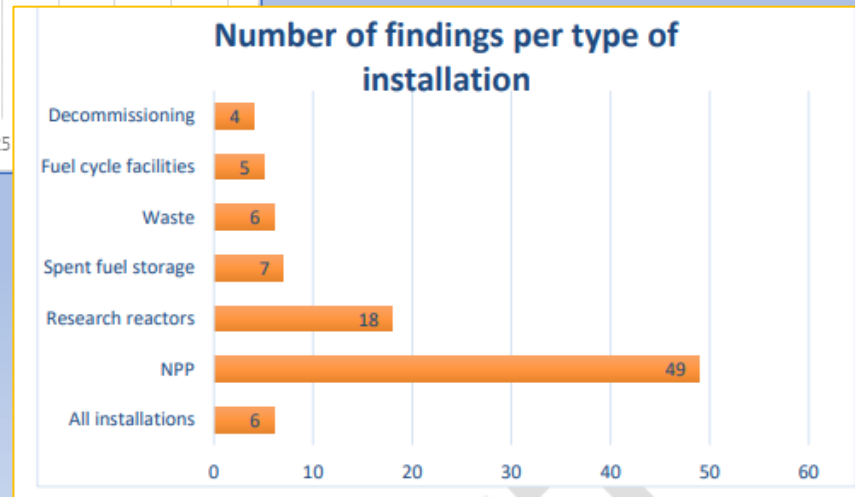
Consideration of information provided during the country sessions

- ❑ Categorisation of the finding, reformulation, deletion
- ❑ Justification based on the discussions and complementary information

39 areas of good performance

56 areas for improvement





2nd Stakeholder meeting

Agenda

Topical Peer Review II

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Introduction to the TPR II topic, process, and overall findings 2
Sylvie Cadet-Mercier, TPR II Board Chair, ASNR, France
Lamberto Matteocci, TPR II Vice Chair, ISIN, Italy

Key outcomes of the review by thematic/topic 3
Operating Experience - François Henry, BelV, Belgium
Fire Safety Analysis - Miguel Angel Jiminez Garcia, CSN, Spain
Fire prevention and passive fire protection - Rob Jansen, ANVS, Netherlands
Active Fire Protection - François Henry, BelV, Belgium
Transversal topics - Miguel Angel Jiminez Garcia

Key findings from the country review 4
Dainius Brandišauskas, VATESI, Lithuania

Stakeholder engagement in TPR II 5
Bharat Patel, European Commission

Comments and questions on the TPR II process, outcomes and next steps 6

2nd Stakeholder meeting

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Use the online chat

Short clarification question at the end of session

Longer questions in the Q&A session

Findings definition

Definition of findings

Good Practice: should be understood as an aspect of fire protection, which is considered by the TPR review Team to go beyond what is required in meeting the appropriate national or international standards.
It is identified in recognition of an arrangement, practice, policy or programme significantly superior to those generally observed in participating countries and having a clear safety benefit.
It is likely to be applicable to other participating countries with similar programmes and it is for each country to review and decide on its implementation in relevant nuclear installations to improve safety.

Challenge (EU wide): should be understood as aspects in the implementation of fire protection that are considered by the TPR Peer Review Team to be common to many or all countries and are areas where action at a European level, in addition to action at national level, would help to increase available knowledge, drive consistency or produce beneficial new techniques or technology to assist in enhancing fire protection at nuclear installations or the fire safety case.

A **National area of good performance** which should be understood as an arrangement, practice, policy or programme related to fire protection that is recognized by the TPR review Team as a significant accomplishment for the country, and has been undertaken and implemented effectively in the country and is worthwhile to commend.

A **National area for improvement** which should be understood as an aspect of fire protection identified by the TPR Peer Review Team where improvement is expected, considering the arrangement, practice, policy or programme generally observed in other participating countries. It may also be self-identified by the country itself (i.e. self-assessment) where improvement is appropriate.