

TPR II – Site Visits

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Background

ENSREG (ENSREG plenary meeting, 24 Nov. 2021) agreed to proposals for site visits, **with a focus on research reactors** and potentially on other installations in case of open issues

1 - Objectives of site visits

2 - Process for the selection

3 – The selected RRs and main conclusions

SITE VISITS:
WHY ARE
THEY
SO
IMPORTANT?



1. Objectives



- draw lessons, highlight experience on practices and approaches relevant to similar installation types, or in similar phase of its lifecycle
- provide additional opportunities for peer reviewers **to view how practical and operational aspects of fire-protection are implemented** in the field, to complement design and programmatic aspects covered by the NARs
- offer operators the opportunity to benefit of interactions and exchange of views with international experts on issues related to fire protection systems
- contribute to the information exchange and **sharing of experience** in the workshop sessions

2. Process for the selection

Grouping

17 RR as candidates

Three categories
according to **power**:

Group I - >20MW

Group II - >1MW

Group III - ≤1MW

Criteria

- Size and experience of the licensee/operator
- Number of nominated experts for the TPR II
- Experience feedback
- Improvement programmes in fire protection
- Received international peer reviews
- Cases of non-compliance identified on the basis of regulatory oversight and conducted inspections related to fire protection

Scoring

- A score for each criterion **by the experts reviewing the RR**, based upon the available information (NAR, dedicate questionnaire)
➡ **a global score**



Reactors prioritised for site visits: those having the lowest global score

- ❑ **Objectives** : around 5 site visits
- ❑ **No more than one research reactor per country** will be selected for site visits
- ❑ **Not favour all reactors of a specific type**, or of a specific power level (e.g. low power reactors), in order to maximise the sharing of experience across different reactor types.

3. The selected RRs and main conclusions

The selected RRs

At the end of the process the following Research Reactors were selected

- **Group I:** Maria, Świerk - **Poland**, ILL High Flux Reactor - **France**
- **Group II:** Hoger Onderwijs Reactor - **Netherlands**, Budapest Research Reactor - **Hungary**
- **Group III:** İTÜ Research Reactor- **Türkiye**

Visits have been conducted by dedicated teams of TPR II experts and Board Members from May to August

3. The selected RRs and main conclusions

Preparation and Conduct of the visits

- Agenda agreed with national regulators on the **bases of expectations** and Topics of Discussion (ToD) communicated by the visiting team
- ToDs selected by experts based upon NARs and answers to questions review. Some ToDs **common** to different reactors while **some others specific** to the individual reactor
 - management of fire loads
 - implemented or planned improvements
 - implemented detection and suppression systems
 - Fire fighting strategy
 - use of PSA as part of FSA
 - Fire protection measures in case of experiments
 - Compartmentation
 - Management of ventilation
 - ...
- **Walk-downs conducted** in relevant areas of the reactors (e.g. Reactor Hall, Control Room, DG room etc) taking vision of implemented fire prevention and protection measures

3. The selected RRs and main conclusions

Main general conclusions and feedback

- All national regulators and operators showed **willingness and cooperation to host the site visits**, with **excellent preparation and organization**
- Many **relevant additional information** were provided to the visiting teams by delivering dedicated presentations and through open discussions
- The conducted walkdowns offered the **opportunity to take direct vision of implemented measures** and strategies, complementing and clarifying what understood from the desktop peer review
- The visiting teams were able to recognize implemented improvements and **areas of good performance** as well as **specific issue** where additional improvement actions may be required
- **Main conclusions** have been reflected in the **CRRs**

**Plenary
session**

Site visits

Topical Peer Review II

Fire protection
at nuclear installations

Thank you for your kind attention