

Report

Status of the Implementation of the 2014 Safety Reference Levels in National Regulatory Frameworks as of 1 January 2019

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Annual Quantitative Reporting by RHWG

16 April 2019

Background

WENRA has been developing Safety Reference Levels (RLs) for existing reactors for more than a decade. WENRA members also made a formal commitment to implement these RLs into their national regulatory framework so that, *in fine*, these RLs are actually implemented at the nuclear power plants.

Since 2011, RHWG has been reporting to WENRA on progress made towards harmonization in WENRA countries, specifically on implementation of RLs into each national regulatory framework. To this end, RHWG developed a yearly summary report – a one page factsheet with quantitative status – restricted to WENRA.

During its Spring 2015 meeting, following RHWG presentation on the end of 2014 factsheet, WENRA decided to adapt the reporting mechanism for the implementation of the RLs for existing reactors into national regulatory frameworks.

"WENRA decided to establish an official reporting mechanism for the implementation of the SRLs for existing reactors. It was therefore decided that each member shall report in a brief Report as of 1 January 2016 about the status of implementation of the 2014 version of all the SRLs for existing reactors. These Reports shall be presented at WENRA's Spring Meeting 2016 and then be publicly available."

This mechanism would further elaborate the one-page factsheet (quantitative reporting) presented yearly by RHWG. RHWG was not tasked to prepare the WENRA report but had to continue its yearly quantitative reporting, considering the 2014 RLs and not anymore the 2008 RLs.

Quantitative Reporting

After the TEPCO Fukushima Dai-ichi nuclear accident, the RLs for existing reactors were revised. These updated RLs were published in September 2014.

For the quantitative reporting, the following rules were applied:

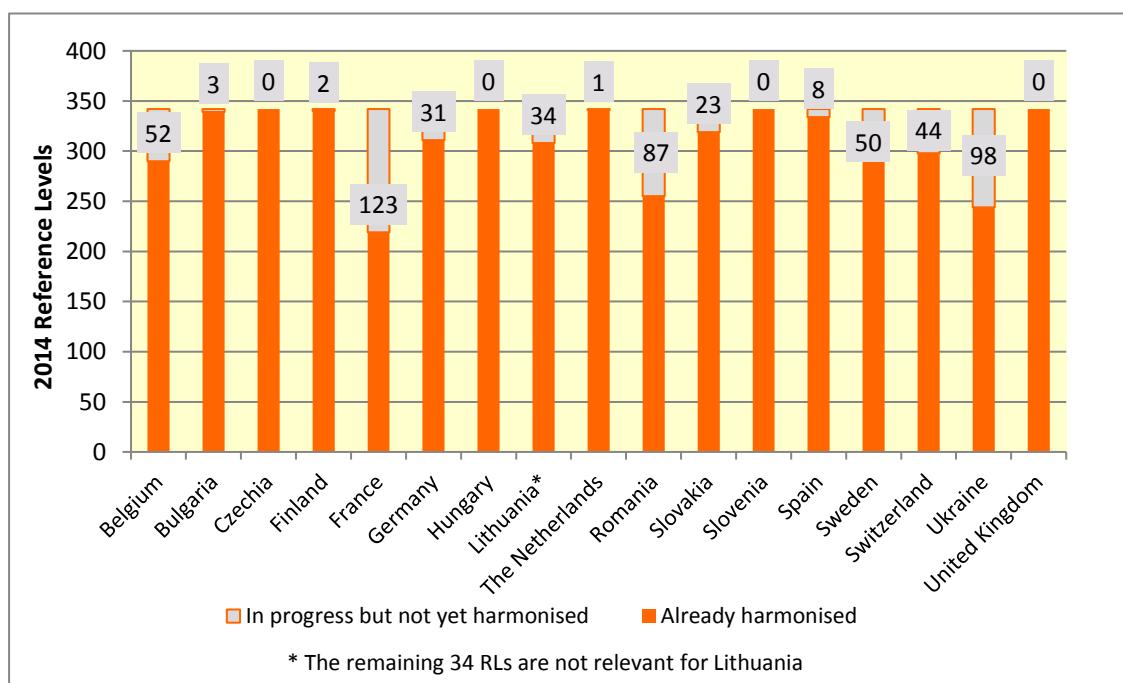
- (1) it is limited to the regulatory side;
- (2) status is reported by each WENRA country, based on its self-assessment;
- (3) only RLs transposed into a published national requirement (as defined by WENRA, i.e. national regulation or publicly issued recommendation) are credited as "harmonized".

RHWG underlines that rule (3) is quite restrictive and resulting figures will not reflect efforts and progress already accomplished, but not finalised, as it implies for example that:

- a RL transposed into a draft national requirement, even if stakeholder consultation is ongoing or was performed, is not credited;
- a RL transposed into a national requirement not yet published (for example waiting for endorsement by Parliament or the Government) is not credited.

However, even if an already published national requirement transposing a RL includes a transitory period before it comes into force, the harmonization for this RL is credited on the regulatory side.

As of 1 January 2019 the status (regulatory side) reported by the WENRA countries is the following:



Number of RLs (2014 version) per issue

After the TEPCO Fukushima Dai-ichi nuclear accident, the RLs for existing reactors were revised to take into account the lessons learned, including the insight from the EU stress tests. As a result a new issue on natural hazards was developed (marked in orange in the following table) and significant changes were made to several existing issues (marked in grey in the following table). These updated RLs were published in September 2014.

The 2014 version of the RLs consists of 19 issues with 342 RLs in total. The number of RLs per issue is given in the following table.

Safety area	Issue	Number of RLs
Safety Management	A – Safety Policy	9
	B – Operating organisation	15
	C – Management system	26
	D – Training and authorization of NPP staff	15
Design	E - Design basis envelope for existing reactors	46
	F – Design extension of existing reactors	25
	G – Safety classification of structures, systems and components	7
	T – Natural hazards	19
Operation	H – Operational limits and conditions	19
	I – Ageing management	8
	J – System for investigation of events and operational experience feedback	16
	K – Maintenance, in-service inspection and functional tests	20
	LM – Emergency operating procedures and severe accident management guidelines	20
Safety verification	N – Contents and updating of safety analysis report	17
	O – Probabilistic safety analysis	16
	P – Periodic safety review	9
	Q – Plant modifications	15
Emergency preparedness	R – On-site emergency preparedness	20
	S – Protection against internal fire	20