NUCLEAR SAFETY STANDARDS COMMITTEE (NUSSC)

Report of the 43rd Meeting
20 June – 22 June 2017

International Atomic Energy Agency
Vienna
Table of Contents

1. GENERAL ISSUES ........................................................................................................................................... 4
  1.1 Opening of the Meeting ................................................................................................................................. 4
  1.2 Chairman’s Introduction ................................................................................................................................. 4
  1.3 Adoption of the Agenda of the 43rd NUSSC Meeting .................................................................................. 4
  1.4 Approval of the Report of the 42nd NUSSC Meeting ................................................................................... 4
  1.5 Actions of NUSSC Meetings ........................................................................................................................ 4
  1.6 Dates of the next meetings .............................................................................................................................. 5
  1.7 Report from the previous meeting of the five Chairs .................................................................................... 5
  1.8 (a) CSS 41st Meeting Report ....................................................................................................................... 5
  1.8 (b) Holistic Review of Safety Standards structure ....................................................................................... 6
  1.9 Status of the Nuclear Safety and Security Online User Interface (NSS-OUI) ................................................. 8
  1.10 SSCs’ “self-assessment” against ToR of Committees .................................................................................. 8
  1.11 Status of Safety Standards .......................................................................................................................... 9

2. REVIEW OF IAEA SAFETY STANDARDS .................................................................................................. 9
  2.1 DS484 – Safety Requirement: Site Evaluation for Nuclear Installations ........................................................ 9
  2.2 DS495 – Safety Requirement: Regulations for the Safe Transport of Radioactive Material .............................. 10
  2.3 DS440 – Draft Safety Guide: Design of Auxiliary Systems and Supporting Systems for NPPs ....................... 10
  2.6 DS474 – Draft Safety Guide: Arrangements for the Termination of a Nuclear or Radiological Emergency ........................................................................................................................................... 12
  2.7 DS475 – Draft Safety Guide: Arrangements for Public Communication in Preparedness and Response for a Nuclear or Radiological Emergency ........................................................................ 12
  2.8 DS479 – Draft Safety Guide: Operating Experience Feedback for Nuclear Installations ............................. 12

  2.9 DS483 – Draft Safety Guide: Severe Accident Management Programmes for Nuclear Power Plants ............... 13

3. REVIEW OF DOCUMENT PREPARATION STANDARDS (DPPs) – SAFETY STANDARDS ................................................................................................................. 14
  3.1 DPP DS503 – Draft Safety Guide: Protection against Internal & External Hazards in Operation of NPPs ................................................................................................................................. 14
  3.2 DPP DS504 – Draft Safety Guide: Arrangements for EPR ......................................................................... 14
  3.3 DPP DS505 – Draft Safety Guide: Source Monitoring, Environmental and Individual Monitoring ........................................................................................................................................... 14
  3.5 DPP DS508 – Draft Safety Guide: Application of Safety Principles & General Design Requirements for NPPs ........................................................................................................................................... 15

4. DOCUMENTS FOR INFORMATION/DISCUSSION/TECHNICAL ENDORSEMENT ......................................................................................................................... 16
  4.1 Four-years Term NUSSC Report .................................................................................................................... 16
4.3 DS488 - Draft Safety Guide: Design of Reactor Core for NPPs .............................................. 17
4.5 Status of development of DS497 ..................................................................................... 18
4.6 Status of DPP DS502 ................................................................................................. 18
4.7 NST047 Computer security techniques for nuclear facilities ..................................... 19
5. MISCELLANEOUS ........................................................................................................ 19
5.1 Fuel Incident Notification and Analysis System (FINAS) ............................................. 19
5.2 Feedback from the 7th Review Meeting of the Contracting Parties to the Convention on Nuclear Safety ........................................................................................................... 19
5.3 Feedback on Regulatory Arrangements and Current Developments in NUSSC Member States (Hungary, Russian Federation) ................................................................................. 19
6. CLOSURE OF THE MEETING ..................................................................................... 20
6.1 List of Actions for the 43rd NUSSC Meeting ............................................................... 20
6.2 Conclusions .................................................................................................................. 20
ANNEX I AGENDA .......................................................................................................... 21
Fuel Incident Notification and Analysis System (FINAS) ................................................. 23
ANNEX II Actions following the 43rd NUSSC Meeting ................................................... 25
ANNEX III List of Participants .......................................................................................... 29
1. GENERAL ISSUES

1.1 Opening of the Meeting

The meeting was opened by Mr. G. Rzentkowski (DIR-NSNI) listed several topics that deserved special attention and could be discussed in NUSSC:

- The 7th Review Meeting of the Contracting Parties to the Convention on Nuclear Safety. TECDOCs and safety guides may be issued to address technical areas such as practical elimination, early radioactive releases or radioactive releases large enough to require long-term protective measures and actions.
- The International Conference on Topical Issues in Nuclear Installation Safety: Safety Demonstration of Advanced Water Cooled NPPs during which a session dealt with the Vienna Declaration and practical elimination. Information was provided on the conclusions of the Conference.
- A possible presentation to the next NUSSC on the adaptation of safety requirements to small modular reactors.

He finally highlighted documents on NUSSC agenda, being on the last steps of review process: the draft safety guide on Severe Accident Management Programmes for Nuclear Power Plants and those on the Regulatory Body organization and functions (DS472 and DS473).

1.2 Chairman’s Introduction

The Chairman mentioned that three committees, RASSC, EPreSC and WASSC, have met the week before. Considering the meeting of NSGC and the international Convention Exercise (ConvEx) taking place in parallel of NUSSC meeting, the availability of technical officers could be impacted.

He recalled the various documents on the agenda and stressed some items:

- The preparation of the NUSSC four years term NUSSC report;
- The assessment of fulfilment of NUSSC mandate by members and observers;
- The holistic review of Safety Standards structure which will be the subject of a dedicated voluntary session on Friday 23 June.

Such items will give opportunities to NUSSC members and observers to stand back from the documents review and look at the overall picture.

1.3 Adoption of the Agenda of the 43rd NUSSC Meeting

The Agenda of the 43rd NUSSC Meeting was approved.

1.4 Approval of the Report of the 42nd NUSSC Meeting

The report of the 42nd NUSSC Meeting was adopted.

1.5 Actions of NUSSC Meetings

The progress made on the actions decided at the 42nd NUSSC Meeting was presented by Mr M. Svah, NUSSC Scientific Secretary. The actions were either already performed or dealt with during the NUSSC Meeting.
The investigations led by the Secretariat on the use of streaming or WebEX gave rise to a discussion and it was decided to use WebEX at the next NUSSC meeting for the opening session and a couple of documents under review (list to be determined later).

1.6 Dates of the next meetings

The dates of the next NUSSC Meetings were confirmed:

- The 44th NUSSC Meeting will be held on 27 November – 1 December 2017.
- The 45th NUSSC Meeting will be held on 25 – 29 June 2018

1.7 Report from the previous meeting of the five Chairs

Prior to the CSS Meeting, a meeting of the five Chairs of the review committees was held and the NSGC Chair participated.

The discussions focused on:

- The structure of the four-years term reports for the Committees;
- The holistic review of Safety Standards and their structure. The interface between Safety Standards, TECDOC and Safety reports was addressed;
- The definitions of terminology used in IAEA publications and the development of a safety/security glossary. The Secretariat indicated that a tool within NSS-OUI platform was developed to link the terminology used in each safety standards with the safety glossary in force when the publication was issued.
- The progress made on the computer tool NUCLEUS/NSS-OUI IT Platform;
- The numbering of the paragraphs when a document is amended, thus partially modified. Such topic was initially raised considering the revision of transport regulation (SSR-6) and associated guide (SSG-26). The solution adopted for DS462 will be implemented to avoid any impact on meta-data contained in NSS-OUI system; and
- The situation encountered when reviewing DS489; disagreements within IAEA were highlighted during the discussions.

Moreover there were extensive discussions on:

- The publication process of Safety Standards: existence of excessive delays between the endorsement by the CSS or the approval by the Board of Governors of a document and the publication of such document. The IAEA indicated that new working methods will be implemented to improve the situation.
- The possibility to launch a self-assessment of Committees actions compared to their mandate.
- A potential independent assessment of the structure of the Review Committees. It was underlined that the last independent assessment launched by NSGC was not as successful as expected because its conclusions were not accepted by the Committee.

Some members felt that having an external opinion of NUSSC activities and working methods could be beneficial to improve the publication process.

1.8 (a) CSS 41st Meeting Report

Mr. D. Delattre, CSS Scientific Secretary reported on the results of the 41st CSS Meeting after having introduced the road map for the long term structure of Safety Standards. During the 41st CSS meeting the following points were discussed:

- The progress made in the implementation of the long-term structure of safety standards and the update of Safety Standards to reflect the TEPCO Fukushima Daiichi accident lessons learned;
- The publication process of Safety Standards and the interface between CSS and Publication Committee. Such interface should be modified to accelerate the publication process (see the figure beside);
- The copyrights associated to Safety Standards and the possibility to encourage instead of limit the use of parts of texts.
- The potential consequences of UNSCEAR Report “Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks” on Safety Standards (action by RASSC);
- The publication of INSAG-27 (Ensuring Robust National Nuclear Safety Systems - Institutional Strength in Depth) and the consideration given to the recommendations made in the document in Safety Standards.

CSS approved the following Safety Standards:
- DS478: Draft Safety Requirements on Safety of Nuclear Fuel Cycle Facilities (revision of NS-R-5 (Rev. 1))

CSS approved the following DPP:
- DPP DS498: Draft Safety Guide on External Events Excluding Earthquakes in the Design of Nuclear Installations (revision of NS-G-1.5)

1.8 (b) Holistic Review of Safety Standards structure

The IAEA recalled the strategy underlying this interface for the preparation and the publication of Safety Standards and introduced its basic elements.

The IAEA recalled its objectives for the review of Safety Standards:
- Once every 10 years for safety requirements;
- Once every 5 years for safety guides.

It was reminded that the CSS and the Review Committees can express their view on which document to give priority for an update.

Among CSS priorities for its 6th term, three areas are of particular interest for NUSSC:
1) Harmonize safety standards and security recommendations and in particular:
• Promoting a common development process for safety standards and security recommendations and associated guidance, including further involvement of the CSS.
• Progressing on a common glossary for nuclear security and safety.

2) Considering the observations and lessons in the Director General’s Fukushima Daiichi Accident Report.
3) Perform a holistic review of the complete collection of Safety Guides and as appropriate a prioritization for the new guides or revision of the existing ones.

Some NUSSC Members recalled that NUSSC identified Safety Guides as a priority impacted by the lessons learned from the Fukushima Daiichi NPP accident:

<table>
<thead>
<tr>
<th>NUSSC Meeting</th>
<th>Conclusion on the prioritization</th>
<th>Status (after 43rd NUSSC Meeting)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUSSC 34</td>
<td>NS-G-1.9</td>
<td>Reactor cooling system; DS481 second review (for technical approval) at NUSSC44</td>
</tr>
<tr>
<td></td>
<td>NS-G-1.10</td>
<td>Containment. Second draft of DS482 technically approved at NUSSC 43. Final approval for submission to CSS would be at NUSSC44.</td>
</tr>
<tr>
<td></td>
<td>NS-G-2.15</td>
<td>Severe accident, Severe accident. Final review of the second draft at NUSSC 44.</td>
</tr>
<tr>
<td>NUSSC 35</td>
<td>NS-G-1.6</td>
<td>Seismic design and qualification, DS490 DPP approved. First review at NUSSC45.</td>
</tr>
<tr>
<td></td>
<td>SSG-2</td>
<td>Deterministic safety analysis. Second draft D491 technically approved at NUSSC 43. Final approval would be at NUSSC44.</td>
</tr>
<tr>
<td></td>
<td>NS-G-1.5</td>
<td>External events. DPP DS498 approved at NUSSC42. First review at NUSSC45.</td>
</tr>
<tr>
<td>NUSSC 36</td>
<td>SSG-15</td>
<td>Spent fuel storage, DS489. Incorporating MS comments.</td>
</tr>
<tr>
<td></td>
<td>SSG-16</td>
<td>Establishing the Safety Infrastructure for a Nuclear Power Programme, DS486. Member State consultation completed. Final review at NUSSC45.</td>
</tr>
<tr>
<td>NUSSC 39</td>
<td>For review to reflect the Vienna Declaration on Nuclear Safety NS-G-1.5</td>
<td>See above.</td>
</tr>
<tr>
<td></td>
<td>NS-G-1.7</td>
<td>Internal hazards, DS494. First review at NUSSC44.</td>
</tr>
<tr>
<td></td>
<td>NS-G-1.11</td>
<td>Internal hazards, see DS494.</td>
</tr>
</tbody>
</table>

During the meeting, NUSSC Members decided to gather a voluntary working group to be held after the plenary session to consider the future Safety Standard Structure.

⇒ NUSSC noted that the main effort should be targeted at updating the safety guides.
NUSSC invited the IAEA to propose subjects that could be more thoroughly addressed in safety standards.

1.9 Status of the Nuclear Safety and Security Online User Interface (NSS-OUI)

The IAEA recalled the strategy underlying this interface for the preparation and the publication of safety standards and introduced its basic elements. Nowadays, all Safety Standards are available full text and tagged in NSS-OUI and the tool is available here: https://nucleus-apps.iaea.org/nss-oui

Next steps will be as follow and should be ready for the next IAEA General Conference:

- New “Relationship Search” tool with possibility to select topical areas;
- Import of the Glossaries and then semi-automatic tagging to import as metadata the definitions and associated information notes for defined terms used in the text of the publications (in pop-up windows);
- Full SharePoint process flow to manage the review and approval process steps for the revisions up to the final approval and publication;
- Continue to insert relationships to relevant Safety Report, TECDOCS and other relevant publications;
- Insert in a systematic manner a link to e-learning tools for the requirements/recommendations and where appropriate for guides; and
- Some formatting issues to be addressed with the Publications Section.

The IAEA made a demo on the research abilities and the feedback mechanism of the interface.

NUSSC confirmed the interest of this IT tool.

1.10 SSCs’ “self-assessment” against ToR of Committees

During the last meeting of the five Chairs, extensive discussions arose on the possibility to launch, at the end of each term, a self-assessment of Committees actions on the basis of Terms of reference for the Committees.

Discussions on the format and content of such assessment took place during the NUSSC Meeting. Members agreed on the importance to have a qualitative rather than a quantitative feedback, with no particular level of details requested. The possibility to expand the list of questions to include SPRESS and the actions identified during the previous NUSSC term reports was also considered and agreed.

The assessment could be annexed to end-of-term report of each SSC and presented to CSS in April 2018.

NUSSC supports the idea of organising a self-assessment and agreed on the following three steps process:

- First step: develop a questionnaire to collect each participant assessment and request additional information when the rating is poor. Create a free cell for “other comments” and question the Chairs of EPReSC, WASSC, RASSC and TRANSSC on their relations with NUSSC.
- Second step: The Secretariat to synthesise the answers and provide NUSSC members with a short summary by the end of September 2017. By the end of October, the Secretariat should receive comments on it.
Third step: update of the report being downloaded on the NUSSC website prior to the next NUSSC meeting.

1.11 Status of Safety Standards

A presentation on the status of Safety Standards was given by Mr. M. Svab.

Only one Safety Standard was published by the IAEA since the previous NUSSC Meeting, the SSG-42 on the Safety of Nuclear Fuel Reprocessing Facilities (DS360). The SSR-4 approved by the previous CSS will be presented for approval during the next Board of Governors in September 2017. Concerning safety requirements, they will all be published by the end of the year excepting SSR-1 (Site Evaluation for Nuclear Installations).

The current situation for safety standards is as follow:

- GSR Part 2 Leadership and Management for Safety (published 30 June 2016)
- SSR-3 Safety of Research Reactors (published on 7 November 2016)

Mr. Svab informed the NUSSC Members that the next Consultancy Meetings for the development of DS497 (Revision of 8 Operational Safety Guides) will be held on 30 October – 2 November 2017.

NUSSC confirmed its interest for such presentation.

2. REVIEW OF IAEA SAFETY STANDARDS

2.1 DS484 – Safety Requirement: Site Evaluation for Nuclear Installations

The document is an update of NS-R-3 first published in 2003. The DPP was approved by NSGC, NUSSC, WASSC, RASSC and TRANSSC Committees in July 2014 and by the CSS in November 2014. The first draft was developed during three consultancy meetings during 2013-2015.

The updated version of DS484 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. All comments received were addressed. The French comments were carefully reviewed and allowed the improvement of the document.

There were discussions concerning:

- Clarification of the scope in this guide for existing nuclear installations as well as new ones in para. 1.6 as similar stated in SSR-2/1 (Rev. 1). The idea to segregate requirements depending on the nature of the installation was rejected.
- The distribution of population should be taken into account in impact assessment and emergency response plan (Requirement 26). The IAEA indicates that the ways to implement emergency response plan are included in GSR Part 7.
- Means of action when the density of population increases: improve the safety of nuclear installations or improve the quality of the emergency response plan
- Difference between assessing a new site and making a new assessment of a site where a nuclear installation is already located (Requirement 4).
- Clarification of the purpose of re-assessment of external hazards and site, which is an input for reinforcement of safety function and EPR (Requirement 29)

➔ NUSSC gave its approval for submission of DS484 to Member States.

2.2 DS495 - Safety Requirement: Regulations for the Safe Transport of Radioactive Material

This is a revision of SSR-6 which applied to the transport of radioactive material by all modes on land, water, or in the air.

The updated version of DS495 and the table of comments and their resolutions were not available on the SSCs’ website before the NUSSC meeting. According to the IAEA, most comments were technical or for clarification and all were addressed.

NUSSC Chairman noted that, on the website, there is no information on comments resolution and that is contrary to the rules for the preparation of Review Committee meetings.

➔ As the table of comments made by Member States or SSC Members and their resolutions were not available on the SSCs’ website before the NUSSC meeting, NUSSC was not able to oppose or support this document. However, in order not to delay the review process, NUSSC decided to defer the decision to TRANSSC.

➔ NUSSC Secretariat will inform NUSSC Members on the outcome of TRANSSC discussions.

2.3 DS440 – Draft Safety Guide: Design of Auxiliary Systems and Supporting Systems for NPPs

This is a new safety guide. As it is based on SSR-2/1 (Rev.1), it takes into account the amendments of the requirements following the Fukushima Daiichi nuclear power plant accident.

The updated version of DS440 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. Most comments asked for clarification and consistent use of terminology.

During the meeting one question was raised on the different levels of details of the recommendations made in the draft depending on the auxiliary system addressed. It was not perceived as a reason to prevent the submission to Member States.

➔ NUSSC gave its approval for submission to Member States of DS440.


The updated version of DS472 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. All comments were addressed.

It was stressed that WASSC and RASSC did not approved the draft for submission to CSS. Those decisions were mainly due to the way graded approach was taken into account and the need to transfer parts of the guide to an annex.
During the meeting, they were discussions on:

- The structure of paragraph 1.4 and the link between the bullet on emergency preparedness and emergency response.
- Paragraph 4.22 and the function of the regulatory body concerning emergency preparedness and response. It was decided to suppress the terms “as a minimum”.
- Paragraph 4.30 concerning legal support, it was decided to remove the term “subprocess”.
- The objectives described in paragraph 1.4
- The paragraph 4.59 which was amended to focus on the Regulatory Body mandates
- Possibility to make a single document out of DS472 and DS473. This idea could be further considered when discussing the future overall structure of Safety Standards.

➔ NUSSC gave its approval for submission to CSS of DS472 with modification of paragraphs 4.22, 4.30 and 4.59 as discussed during the meeting

➔ The NUSSC Chair will inform WASSC and RASSC Chairs of this conclusion.


This document has interface with other documents: GSR Part 1 rev.1, GSR Part 4 rev.1, GSR Part 7, DS460 and his complementary to DS472.

The updated version of DS473 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. All comments were addressed.

It was stressed that WASSC and RASSC did not approved the draft for submission to CSS. Those decisions were mainly due to the way graduated approach was taken into account and the need to transfer parts of the guide to an annex.

Discussion arose on:

- Paragraphs 3.72 et seq. on internal guides within the chapter on “regulations and guides”. It should be moved to the relevant sections depending on the theme being broached.
- The relevance of the recommendations made by the Guide to nuclear activities and facilities different from Nuclear power plant (the graded approach and the flexibility introduced by the paragraph 3.172, the paragraphs 3.14, 3.97, 3.105, 3.177, 3.199… that may not be relevant for the users of radiation sources). The IAEA proposed to draft a TECDOC to gather concrete example on the graded approach.

The NUSSC decided to create a working group with IAEA TO to identify potential modifications to be implemented within the document to address these concerns.

The working group reported the following:

- Concerning the graded approach which is dealt with not only in chapter 2 but also in different part of the guide, the group considered two options: to limit the provisions on the graded approach to chapter 2 or to better take into account this principle in the part “review and assessment”. The second option was further explored and modifications to DS473 were suggested.
- The group proposed to include a reference to GSR Part 1 para 4.45 at the beginning of the chapter “review and assessment” or to amend the paragraph 3.172.
- The group analysed the relevance of each paragraph for the various nuclear activities and facilities and proposed a modification of paragraphs 3.171 and 3.172 and a restriction of paragraphs 3.173 and 3.187 to complex facilities and activities.
The text amended by the working group was put on screen to show the suggested changes. The proposition made by the working group allowed NUSSC to reach consensus.

➔ NUSSC gave its approval for submission to CSS of DS473 with the following modifications:
  - To move paragraphs 4.72 et seq. of paragraphs 4.22, 4.30 and 4.59 as discussed during the meeting
  - Modifications agreed upon during the meeting, especially concerning the chapter on “review and assessment”.

➔ The NUSSC Chair will inform WASSC and RASSC Chairs of this conclusion.

➔ The NUSSC support the idea of a TECDOC to gather concrete examples on the graded approach.

2.6 DS474 - Draft Safety Guide: Arrangements for the Termination of a Nuclear or Radiological Emergency

This is a new safety guide developed thanks to six consultancy meetings and one technical meeting. The updated version of DS474 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. EPReSC, WASSC and RASSC approved its submission to CSS.

➔ NUSSC gave its approval for submission of DS474 to CSS.

2.7 DS475 - Draft Safety Guide: Arrangements for Public Communication in Preparedness and Response for a Nuclear or Radiological Emergency

This is a new safety guide linked to GSR Part 7 and developed thanks to six consultancy meetings and one technical meeting. The updated version of DS475 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. All comments received were addressed.

EPReSC, WASSC and RASSC approved its submission to CSS.

During the meeting only one question was raised on the way to handle rumours and their impact on response operations. The IAEA recommended to communicate regularly and quickly via social media.

➔ NUSSC gave its approval for submission of DS475 to Member States.

2.8 DS479 – Draft Safety Guide: Operating Experience Feedback for Nuclear Installations

This document is an update of NS-G-2.11 (2006) and has a larger scope encompassing all nuclear installations. Three consultancy meetings and one technical meeting were necessary to elaborate the draft. The updated version of DS479 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. All comments received were addressed thanks to bilateral discussions.
NUSSC approved DS479 for submission to CSS.

2.9 DS483 - Draft Safety Guide: Severe Accident Management Programmes for Nuclear Power Plants

This Guide is an update of NS-G-2.15 (2009) and was considered as a priority by NUSSC following the Fukushima Daiichi NPP accident. The DPP was approved in 2013. The IAEA Secretariat underlined that this guide addresses the operation of NPP and not their design. The updated version of DS483 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. Comments received were mainly related to the balance between preventive and mitigatory provisions/actions for accident management.

Discussions arose on:
- The difference between preventive and mitigatory domains. The objectives of both domains should be different as the mitigatory one has a unique objective to ensure the containment while numerous objectives exist in the preventive domain.
- The notion of “safe state” and “controlled, stable state”.
- The fact that the document is not supposed to relate to design while some paragraphs (3.79 to 3.99) can lead to confusion.
- The wording “extremely low probability event” and its meaning, especially concerning probabilities calculated by PSA.
- The existence of inconsistency in the use of the terms “severe accident management” and “accident management”
- The fact that some comments were very recently forwarded to the IAEA Secretariat and did not yet receive any answer.
- The fact that the drafting of the document is anew close to the one proposed at step 8 of the process which led to numerous modifications that Members were not able to digest considering the lack of time.
- The need to be clear on the objective of the document.

NUSSC recognized that there are still opened comments on DS483 and considered that the deadline to be ready for the CSS will not be met. Thus NUSSC did not give its approval for submission of DS483 to CSS.

In order to find a way forward, a meeting will be organized to discuss an updated version of DS483 taking into account recent comments. Canada, France, Germany, Iran, Japan, Korea, Russia, USA, ENISS and EUR volunteered. The new version of DS483 will be made available by the Secretariat before the end of June, comments should be made by the end of July and the meeting should take place in August.

2.10 DS487 - Draft Safety Guide: Design of Fuel Handling & Storage Systems for NPPs

The document is a revision of NS-G-1.4, first published in 2003. The scope of NS-G-1.4 remains essentially unchanged. The DPP was approved by the Committees in April 2014 and the first draft of the document was developed in four Consultancy Meetings during 2015-2017. The updated version of DS487 and the table of comments and resolutions were available on the SSCs’ website before the NUSSC meeting. All comments received were addressed.
Discussion arose on:
- The wording used concerning the prevention of criticality when soluble absorbers are used (3.99).
- The possibilities to use non-permanent equipment to ensure safe conditions in the fuel storage and the terminological coherence with SSR-2/1 and SSR-2/2.
- How to better stress the specificities of MOX fuel.

➔ NUSSC gave its approval for submission of DS487 to the Member States.

3. REVIEW OF DOCUMENT PREPARATION PROFILES (DPPs) – SAFETY STANDARDS

3.1 DPP DS503 – Draft Safety Guide: Protection against Internal & External Hazards in Operation of NPPs

This document is a revision of NS-G-2.1, first published in 2000. The scope of the current document will be extended from solely ‘Fire’ to include a wide range of external and internal hazards. The DPP was approved by the Coordination Committee in December 2016. It was posted for Member State comments in April 2017. All comments were addressed and none were rejected. During NUSSC meeting, discussion took place on:
- Interface between design and operation. According to the IAEA, this guide is centred on already operating NPPs.
- The link with NS-R-3 and the future SSR-1.
- The scope of the guide and its possible extension to other nuclear installations, the issue may be better addressed when the guide will be published.

➔ NUSSC raised the discussion on a potential broader scope of the guide and heard IAEA views according to which it could be premature to extend the scope beyond the sole NPPs.

➔ NUSSC gave its approval for the submission of DPP DS503 to CSS with the inclusion of NS-R-3 in the list of interface safety standards.

3.2 DPP DS504 - Draft Safety Guide: Arrangements for EPR

This document is a revision of GS-G-2.1 and takes into account the 2015 GSR Part 7 publication and the interface with DS474 and DS. The updated version of the DPP was posted on the IAEA website before the meeting. EPReSC, WASSC and RASSC approved the document for submission to CSS.

➔ NUSSC approved DPP DS504 for submission to CSS.

3.3 DPP DS505 - Draft Safety Guide: Source Monitoring, Environmental and Individual Monitoring

This document is a revision of RS-G-1.8 (2005). The scope of the document will cover: all facilities and activities over the different stages of their lifetimes, characterization and monitoring for planned,
emergency and existing exposure situations and interpretation of results, including those for dose assessment.

The updated version of the DPP was posted on the IAEA website before the meeting. 71 comments were received concerning restructuration of the guide, clarifications and modification of the title. All comments were addressed.

During the NUSSC meeting, one remark was made to carefully monitor the drafting of the paragraphs related to non-human species protection.

**NUSSC gave its approval for submission of DPP DS505 to CSS.**

### 3.4 DPP DS507 - Draft Safety Guide: Seismic Hazards in Site Evaluation for Nuclear Installations

This document is a revision of SSG-9 which was first published in 2010. The updated version of the DPP was posted on the IAEA website before the meeting and all comments received were addressed.

**NUSSC gave its approval for submission of DPP DS507 to CSS.**

### 3.5 DPP DS508 - Draft Safety Guide: Application of Safety Principles & General Design Requirements for NPPs

This document is based on a gap analysis performed while revising the requirements after the Fukushima Daiichi NPP accident. It is an opportunity to align with the new or revised requirement of SSR-2/1. According to the Secretariat, this Guide will provide guidance to NPPs concerning recommendations encompassed in NS-G-1.2 and some requirements of GSR Part 4. The Secretariat mentioned that:
- a new gap analysis will be performed to clarify its content;
- the Guide’s title could be improved; and
- RASSC and WASSC will likely not be consulted.

Around 50 comments were received and all were addressed. The updated version of the DPP was posted on the IAEA website before the meeting.

During the NUSSC meeting discussions arose on:
- The necessity to perform the gap analysis before approving the DPP.
- The list of subject to be dealt with within the guide which is too ambitious.
- Some points that are not specifically related to NPPs.
- The necessity of a clarification of practical elimination and DEC concepts, especially expressed during the 7th Review Meeting of the Contracting Parties to the CNS.
- The title of the future guide.
- The link between this guide and the work of other organizations such as the OECD/NEA or WENRA. The IAEA mentioned its narrow coordination with the OECD/NEA.
- How to apply this guide to operating reactors and not only to new ones.

Several NUSSC Members and Observers volunteered to participate to the guide’s drafting.

**NUSSC view is that**
- Giving clarifications on DEC and practical elimination is essential;
- The DPP, as it is drafted, is overly ambitious;
- The title should be improved to reflect its future content.

**Therefore, the NUSSC did not approve the DPP DS508. However, NUSSC expressed its formal support to have a Safety Guide dealing with DEC and practical elimination being drafted.**
Concerning the other topics that should be dealt with, such as the recommendations encompass in the NS-G-1.2, the NUSSC considered that the DPP needs greater clarity.

The NUSSC requested the Secretariat to find a way forward with this DPP and develop a new version for the next NUSSC meeting.

4. DOCUMENTS FOR INFORMATION/DISCUSSION/TECHNICAL ENDORSEMENT

4.1 Four-years Term NUSSC Report

At the end of the current mandate, NUSSC will have to deliver its quadrennial report. This report will be divided in two parts:

- The first one provides a retrospective view on NUSSC activities. It could be structured as follow
  - A factual part:
    - The lessons learned from the Fukushima Daiichi NPP accident;
    - The implementation of the long term structure of safety standards (summary table of DS, NST, DPP reviewed by NUSSC from 2014 to 2017 and an overview of the NUSSC/WASSC meetings);
    - The increasing consideration of the interface safety/security;
    - The actions performed between NUSSC meetings;
    - Greater awareness of the IAEA activities and Member States activities in nuclear field;
  - An “analytical” part on working methods, its strengths and weaknesses which could particularly draw on the conclusions of OIOS mission.
- The second part that provides a prospective view to guide the actions of the next NUSSC mandate. It could address, among others, such subjects:
  - The improvements in the coherence of Safety Standards, especially thanks to OUI tool and the simultaneous revision of different Safety Standards;
  - The structure of Safety Guides and the possibility to reinforce the “top-down” approach;
  - The content of Safety Guides and their interface with TecDocs and Safety Reports or other international documents (e.g. IEC, ISO);
  - The improvement of the specification for update, to enable more detailed DPP;
  - The involvement of NUSSC in the drafting of TecDocs, Safety Reports or other IAEA publications;
  - The topics and/or documents identified by NUSSC as priorities for update.

During the previous meeting, NUSSC members agreed to provide the Secretariat with areas they considered as priorities for the next NUSSC mandate. Some contributions were received and available on the NUSSC website together with the first draft of the report.

The NUSSC requested the Secretariat to include general statistics in chapter 3 of the report. NUSSC Chairman and the Secretariat will develop an updated version of the draft report, taking into account comments already made, for the next NUSSC meeting. The goal is to approve this report at next NUSSC meeting.
4.2 DS482 - Draft Safety Guide: Design of Reactor Containment Structure and Systems for NPPs

This document is a revision of NS-G-1.10 first published in 2004. The scope remains essentially unchanged. However specific guidance and recommendations were added in section 3 and 4. The DPP was approved in April 2014. The table of resolutions of comments was posted on the website.

A large number of comments were received and all were addressed.

During the meeting, discussion arose on:
- The guide’s title;
- Paragraph 4.138 and the inclusion of “as far as practicable” to ensure coherency with SSR 2/1;
- Paragraph A.15.

➔ The NUSSC supported, in principle, the technical modification of the document providing a modification of paragraph 4.138.

➔ This conclusion will have to be confirmed after the Technical Editors revision has been performed. The (formal) approval of submission of DS482 to CSS will be on the agenda of next NUSSC meeting.

4.3 DS488 - Draft Safety Guide: Design of Reactor Core for NPPs

The document is a revision of NS-G-1.12 which was first published in 2005. The scope of the document remains essentially unchanged. The DPP was approved by the Committees in November 2014 and the document was developed in three Consultancy Meetings during 2015.

All comments received were addressed and most comments that were not accepted are related to the scope of this Safety Guide.

During the meeting, discussions arose on:
- Modifications of paragraph 3.24 and its relevance for PWR and LWR.
- The nature of the document that will be presented during the next NUSSC meeting – the changes made by the Technical Editors should appear in track changes mode.

➔ The NUSSC supported, in principle, the technical modification of the document.

➔ This conclusion will have to be confirmed after the Technical Editors revision has been performed. The (formal) approval of submission of DS488 to CSS will be on the agenda of next NUSSC meeting.


This document is a revision of SSG-2 which was published in 2009. The scope of SSG-2 remains essentially unchanged. The DPP was approved by the Committees in April 2014 and the first draft was developed in three Consultancy Meetings during 2015-2016.
A large number of comments were received and all were addressed, however the technical editor’s revision could not be performed prior to the 43rd NUSSC meeting. The updated version of the document was posted on the IAEA website before the meeting.

During the meeting, discussions arose on:
- The content of table 2 in paragraph 3.27 which contain new terminology. The table should be moved in an annex.
- Modifications of paragraph 1.5 and the introduction of a sentence “this includes the assessment on adequacy and completeness of the limits and conditions for safe operation”. The verb “include” does not seem appropriate.
- The modification made to paragraph 7.49.

⇒ The NUSSC supported, in principle, the technical modification of the document with the table 2 on Example of anticipated operational occurrences and design basis accident categories used in some states to be put into an annex and an improvement of paragraph 1.5.

⇒ This conclusion will have to be confirmed after the Technical Editors revision has been performed. The (formal) approval of submission of DS491 to CSS will be on the agenda of next NUSSC meeting.

4.5 Status of development of DS497

The DPP DS497 intends to revise eight closely interrelated Safety Guides (NS-G-2.2 to 2.8 and NS-G-2.14). The DPP DS497 was approved by CSS at the end of 2016 and consultancy meetings were organized. First revision in accordance with the DPP 497 was prepared in May 2017 and is currently under IAEA internal review process. The IAEA proposed future actions for this documents which are as follow:
- Complete the Guide’s revision and introduce small restructuring of the 7 guides under DPP DS497 and exclude NS-G-2.7 from the revision.
- Cancel the preparation of DPP for DS502; include sufficient text under NS-G-2.4 and develop detailed guidance on implementing an effective performance improvement model in a TECDOC/Safety Report.

⇒ The NUSSC confirmed its interest for getting regular information on DS497 development and recall that the NUSSC did not yet give its approval for the combination of the seven guides and the issuance of a single guide.
⇒ The NUSSC noted the exclusion of NS-G-2.7 from the revision of DS497. NUSSC supported the restructuring proposal of the IAEA and the merger of DS497 and topics initially considered in DS502PP in a single document.

⇒ The NUSSC requested the Secretariat to upload the document in track changes mode before it is submitted to NUSSC members, resp. Member States. Comments will be only made on the modified parts.
⇒ The NUSSC welcomes the initiative of the Secretariat to draw lessons learned in terms of effectiveness from the simultaneous revision of seven guides and requested to be informed of those conclusions.

4.6 Status of DPP DS502

The DPP DS502 was on hold until NUSSC 43rd meeting – see item 4.5.
**NUSSC supported the withdrawal of the DPP DS502 and took note of the inclusion of text under NS-G-2.4 and the development of guidance document.**

### 4.7 NST047 Computer security techniques for nuclear facilities

The DPP was approved in 2014 and the IAEA organised eight consultancy meetings and one Technical Meeting to draft it. This is a technical guide depending on NST045 which has just been submitted to Member States.

### 5. MISCELLANEOUS

#### 5.1 Fuel Incident Notification and Analysis System (FINAS)

The Secretariat made a short presentation on the Fuel Incident Notification and Analysis System for Fuel Cycle Facilities. It was first a paper based system created in the early 1990 by the NEA. The web database is now operated jointly by NEA and IAEA and allows Member States to share experience. The number of events reported to FINAS is increasing steadily.

During the NUSSC meeting, discussion arose on:
- the IAEA human resources working on FINAS,
- the categories of events gathered in the database.

The next step in the development of the database is to link it to other database on reactors (IRS, IRSRR).

**NUSSC noticed that the resources allocated to FINAS seem largely lower than the one granted to other database on reactors.**

#### 5.2 Feedback from the 7th Review Meeting of the Contracting Parties to the Convention on Nuclear Safety

The Scientific Secretary of NUSSC made a presentation to inform NUSSC Members on the conclusions of the 7th Review Meeting of the Contracting Parties to the CNS. He gave feedback on the major common issues identified during the meeting (Safety Culture, Legal Framework and Independence of Regulatory Body, Managing the Safety of Ageing Nuclear Facilities and Plant Life Extension…), the consideration given to the Vienna Declaration on Nuclear Safety, the challenges faced by Non-NPP and embarking countries (limited national government support or commitment, lack of understandings of the obligations of CPs, absence of legal infrastructure…) and the proposals made to improve the CNS processes such as amending the CNS guidance document, issuing a survey to evaluate the effectiveness of the changes to the review process, the creation of topical sessions etc.

#### 5.3 Feedback on Regulatory Arrangements and Current Developments in NUSSC Member States (Hungary, Russian Federation)

The Hungarian representative provided information to NUSSC Members concerning different issues:
- Hungarian Nuclear Programme (plan for the construction of 2 reactors VVER-1200)
- Nuclear Safety Regulations in Hungary
- Latest changes in the Hungarian legislation (recent update of the Nuclear Safety Code)
The Russian Federation representative gave feedback on current developments in the country concerning the National Nuclear Programme. He introduced the different layers of the legal and regulatory framework for safety (federal laws, federal rules and regulations and safety guidelines.)

The representative of European Utility Requirements for Light Water Reactors (EUR) reminded NUSSC Members that EUR is an association of 16 European operators and informed about its current activities. The recent publication of the "EUR Document" was underlined. To draft the revision, EUR took into account WENRA point of view and IAEA Safety Standards. Document consists of 4 volumes with over 1500 pages:

<table>
<thead>
<tr>
<th>Vol 1</th>
<th>Main objectives and principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vol 2</td>
<td>Generic and nuclear island requirements</td>
</tr>
<tr>
<td>Vol 3</td>
<td>Application of EUR to specific GEN3 LWRs designs</td>
</tr>
<tr>
<td>Vol 4</td>
<td>Specific power generation plant requirements</td>
</tr>
</tbody>
</table>

Nearly 5500 requirements are enumerated.

EUR conducted assessment of different types of reactors on the basis of the different version of the EUR Document:

<table>
<thead>
<tr>
<th>EUR Document</th>
<th>Reactor design</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>BWR90, EPP, EPR, ABWR, SWR1000</td>
</tr>
<tr>
<td>C</td>
<td>AP1000, AES-92, STD EPR</td>
</tr>
<tr>
<td>D</td>
<td>EU-APWR</td>
</tr>
</tbody>
</table>

The three Powerpoint presentations are available on NUSSC website.

6. CLOSURE OF THE MEETING

6.1 List of Actions for the 43rd NUSSC Meeting

The List of Actions for the 43rd NUSSC Meeting was introduced by Mr. Svab to the audience. The NUSSC Members did not comment on the list and approved it. The list was attached to this report as an annex (Annex II).

6.2 Conclusions

All the agenda items were addressed. The actions decided at the 43rd NUSSC Meeting are intended to be posted on the IAEA website.

The dates of the next NUSSC Meetings will be:

- 44th NUSSC Meeting: 27 November 2017 – 1 December 2017;
## ANNEX I AGENDA

*43rd Meeting of the Nuclear Safety Standards Committee (NUSSC)*  
20 June – 22 June 2017, Vienna  
VIC, M Building, Press Room

**Tuesday, 20 June 2017, at 9:30 a.m. – Thursday, 22 June 2017, till 5:00 p.m.**  
*On Friday 23 June (9:30 a.m. – 1 p.m.), a dedicated session – for NUSSC volunteers – will discuss the holistic review of Safety Guides, to develop a NUSSC input on this topic, as requested by CSS.*

### 1. GENERAL ISSUES

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 1.1 | Opening of the Meeting | Mr G. Rzentkowski  
DIR-NSNI |
| 1.2 | Chairman’s Introduction | Mr F. Feron |
| 1.3 | Adoption of the Agenda of the 43rd NUSSC Meeting | For approval  
NUSSC Members |
| 1.4 | Approval of the Report of the 42nd NUSSC Meeting | For approval  
NUSSC Members |
| 1.5 | Actions of NUSSC Meetings | For information  
Mr M. Svab |
| 1.6 | Dates of the next meetings:  
44th NUSSC: 27 November – 1 December 2017  
45th NUSSC: 25 – 29 June 2018 (TBD) | For approval  
NUSSC Members |
| 1.7 | Report from the previous meeting of the Chairs | For information  
Mr F. Feron |
| 1.8 | a) CSS 41st Meeting Report  
b) Holistic review of Safety Standards structure | For information  
Mr D. Delattre |
| 1.9 | Status of the NSS-Online User Interface IT platform | For information  
Mr D. Delattre |
| 1.10 | SSCs’ “self-assessment” against ToR of the Committees | For information and discussion  
Mr D. Delattre/  
Mr F. Feron |
| 1.11 | Status of Safety Standards | For information  
Mr M. Svab |

### 2. REVIEW OF IAEA SAFETY STANDARDS

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 2.1 | DS484 – Safety Requirement: Site Evaluation for Nuclear Installations (All SSCs, NSGC) | For approval for submission to MS  
Mr S. Morita / Mr O. Coman |
| 2.2 | DS495 - Safety Requirement: Regulations for the Safe Transport of Radioactive Material (All SSCs, NSGC) | For approval for submission to CSS  
Ms N. Capadona |
| 2.3 | DS440 – Draft Safety Guide: Design of Auxiliary Systems and Supporting Systems For NPPs (also for NSGC) | For approval for submission to MS  
Mr A. Amri |
| 2.4 | DS472 - Draft Safety Guide: Organization, Management & Staffing of a Reg. Body for Safety (All SSCs, NSGC) | For approval for submission to  
Ms A. Nicic |
2.5 DS473 – Draft Safety Guide: Functions and Processes of the Regulatory Body for Safety (All SSCs, NSGC)  
For approval for submission to CSS  
Ms A. Nicic

2.6 DS474 - Draft Safety Guide: Arrangements for the Termination of a Nuclear or Radiological Emergency (All SSCs)  
For approval for submission to CSS  
Ms S. Nestoroska Madjunarova

2.7 DS475 - Draft Safety Guide: Arrangements for Public Communication in Preparedness and Response for a Nuclear or Radiological Emergency (All SSCs, NSGC)  
For approval for submission to MS  
Ms L. Berthelot

2.8 DS479 – Draft Safety Guide: Operating Experience Feedback for Nuclear Installations (also for RASSC, TRANSSC, WASSC and NSGC)  
For approval for submission to CSS  
Mr D. Zahradka

2.9 DS483 - Draft Safety Guide: Severe Accident Management Programmes for Nuclear Power Plants (also for RASSC, EPReSC, WASSC and NSGC)  
For approval for submission to CSS  
Mr T. Ulses

2.10 DS487 - Draft Safety Guide: Design of Fuel Handling & Storage Systems for NPPs (also for WASSC, TRANSSC, NSGC)  
For approval for submission to MS  
Mr B. Poulat

3. REVIEW OF DOCUMENT PREPARATION PROFILES (DPPs) – Safety Standards

3.1 DPP DS503 – Draft Safety Guide: Protection against Internal & External Hazards in Operation of NPPs (also for RASSC, EPReSC, NSGC)  
For approval for submission to CSS  
Mr J. Sugahara

3.2 DPP DS504 - Draft Safety Guide: Arrangements for EPR (All SSCs, NSGC)  
For approval for submission to CSS  
Ms S. Nestoroska Madjunarova

3.3 DPP DS505 - Draft Safety Guide: Source Monitoring, Environmental and Individual Monitoring (also for RASSC, EPReSC, WASSC)  
For approval for submission to CSS  
Ms T. Yankovich/ Mr G. Proehl

3.4 DPP DS507 - Draft Safety Guide: Seismic Hazards in Site Evaluation for Nuclear Installations (also for WASSC)  
For approval for submission to CSS  
Mr Y. Fukushima

3.5 DPP DS508 - Draft Safety Guide: Application of Safety Principles & General Design Requirements for NPPs (also for NSGC)  
For approval for submission to CSS  
Mr J. Yllera

4. DOCUMENTS FOR INFORMATION/DISCUSSION/TECHNICAL ENDORSEMENT

4.1 Four-years Term NUSSC Report  
For discussion  
Mr F. Feron/ Mr M. Svab
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2</td>
<td><strong>DS482</strong> - Draft Safety Guide: Design of Reactor Containment Structure and Systems for NPPs (also for NSGC)</td>
<td><strong>For technical approval</strong> Mr B. Poulat</td>
</tr>
<tr>
<td>4.3</td>
<td><strong>DS488</strong> - Draft Safety Guide: Design of Reactor Core for NPPs</td>
<td><strong>For technical approval</strong> Mr K.S. Sim</td>
</tr>
<tr>
<td>4.4</td>
<td><strong>DS491</strong> - Draft Safety Guide: Deterministic Safety Analysis for Nuclear Power Plants (also for RASSC, EPReSC, WASSC)</td>
<td><strong>For technical approval</strong> Mr P. Villalibre</td>
</tr>
<tr>
<td>4.5</td>
<td>Status of development of <strong>DS497</strong></td>
<td><strong>For information</strong> Ms V. Ranguloeva</td>
</tr>
<tr>
<td>4.6</td>
<td>Status of <strong>DPP DS502</strong></td>
<td><strong>For information</strong> Mr D. Zahradka</td>
</tr>
<tr>
<td>4.7</td>
<td><strong>NST047</strong> Computer security techniques for nuclear facilities</td>
<td><strong>For information</strong> Mr M. Rowland</td>
</tr>
<tr>
<td>5.</td>
<td><strong>MISCELLANEOUS</strong></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Fuel Incident Notification and Analysis System (FINAS)</td>
<td><strong>For information</strong> Mr R. Gater</td>
</tr>
<tr>
<td>5.2</td>
<td>Feedback from the 7th Review Meeting of CNS</td>
<td><strong>For information</strong> Mr M. Svab</td>
</tr>
<tr>
<td>5.3</td>
<td>Feedback on Regulatory Arrangements and Current Developments in NUSSC Member States (<em>Hungary, Russian Federation</em>)</td>
<td><strong>For information</strong> Mr G. Petofi Mr M. Lankin</td>
</tr>
<tr>
<td>6.</td>
<td><strong>CLOSURE OF THE MEETING</strong></td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>Actions following the 43rd NUSSC Meeting</td>
<td><strong>For discussion</strong> Mr M. Svab/ NUSSC Members</td>
</tr>
<tr>
<td>6.2</td>
<td>Conclusions</td>
<td>Mr G. Rzentkowski/ Mr F. Feron</td>
</tr>
</tbody>
</table>

**Meeting Dates:**

- **42nd CSS** 30 October – 3 November 2017
- **5th EPReSC Meeting** 6 – 9 November 2017
- **6th EPReSC Meeting** 4 – 7 June 2018
- **44th NUSSC Meeting** 27 November – 1 December 2017
- **45th NUSSC Meeting** 25 – 29 June 2018 (TBD)
- **43rd RASSC Meeting** 13 – 15 November 2017
- **44th RASSC Meeting** June (dates TBD)
- **44th WASSC Meeting** 13 – 17 November 2017
<table>
<thead>
<tr>
<th>Meeting Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>45th WASSC Meeting</td>
<td>TBD</td>
</tr>
<tr>
<td>12th NSCG Meeting</td>
<td>27 November – 1 December 2017</td>
</tr>
<tr>
<td>13th NSCG Meeting</td>
<td>11 – 14 June 2018</td>
</tr>
<tr>
<td>35th TRANSSC Meeting</td>
<td>11 – 15 December 2017</td>
</tr>
<tr>
<td>36th TRANSSC Meeting</td>
<td>4 – 8 June 2018</td>
</tr>
</tbody>
</table>
### ANNEX II Actions following the 43rd NUSSC Meeting

<table>
<thead>
<tr>
<th>Item</th>
<th>Action</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>NUSSC Members requested the trial use of Webex for the next NUSSC Meeting (44) for the opening session, a couple of documents presentation. Participating in Webex will be restricted to NUSSC Members and Observers not able to come to the meeting in Vienna.</td>
<td>Secretariat</td>
<td>Next meeting</td>
</tr>
<tr>
<td>1.5</td>
<td>NUSSC Members should consider using Webex for working groups meetings.</td>
<td>Secretariat NUSSC Members &amp; Observers</td>
<td>When working group meetings are decided</td>
</tr>
<tr>
<td>1.10</td>
<td>NUSSC confirms it will perform the self-assessment against its ToR. This will proceed in 4 steps: 1) NUSSC requested the Secretariat to send an evaluation sheet to NUSSC Members, Corresponding Members and Observers before the end of June 2017. 2) They should give their feedback by the end of August to the Secretariat. 3) By the end of September, the Secretariat should combine the feedback, draft a short report and send it to NUSSC Members, Corresponding Members and Observers. 4) By the end of October, they should provide their feedback to the Secretariat. The Secretariat will update the draft report and upload it on NUSSC website two weeks prior to next NUSSC meeting.</td>
<td>Secretariat NUSSC Members &amp; Observers</td>
<td>Ad 1) 30 June  Ad 2) 31 August  Ad 3) 30 September  Ad 4) 31 October</td>
</tr>
<tr>
<td>2.1</td>
<td>DS484 – Safety Requirement: Site Evaluation for Nuclear Installations. Approved for submission Member States.</td>
<td>Secretariat</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.2</td>
<td>DS495 - Safety Requirement: Regulations for the Safe Transport of Radioactive Material. NUSSC was not able to express an opinion on this document as no information on the comments received and on their resolutions were available on the NUSSC website prior to the meeting. Nevertheless, to avoid undue delays, NUSSC accepted to rely on the decision of TRANSSC and requested the Secretariat to inform NUSSC of TRANSSC decision.</td>
<td>Secretariat</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.3</td>
<td>DS440 – Draft Safety Guide: Design of Auxiliary Systems and Supporting Systems For NPPs. Approved for the submission to Member States.</td>
<td>Secretariat</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.4</td>
<td>DS472 - Draft Safety Guide: Organization, Management &amp; Staffing of a Reg. Body for Safety. Approved for submission to CSS providing the</td>
<td>Secretariat NUSSC Chair</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.5</td>
<td>DS473 – Draft Safety Guide: Functions and Processes of the Regulatory Body for Safety Approved for submission to CSS after the modification of several paragraphs, as agreed upon during the meeting, to better reflect the graded approach in the regulator’s practices. NUSSC Chair has to inform RASSC and WASSC Chairs of this decision.</td>
<td>Secretariat NUSSC Chair</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.6</td>
<td>DS474 - Draft Safety Guide: Arrangements for the Termination of a Nuclear or Radiological Emergency Approved for submission to CSS.</td>
<td>Secretariat</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.7</td>
<td>DS475 - Draft Safety Guide: Arrangements for Public Communication in Preparedness and Response for a Nuclear or Radiological Emergency. Approved for submission to Member States.</td>
<td>Secretariat</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.8</td>
<td>DS479 – Draft Safety Guide: Operating Experience Feedback for Nuclear Installations. Approved for submission to CSS.</td>
<td>Secretariat</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.9</td>
<td>DS483 - Draft Safety Guide: Severe Accident Management Programmes for Nuclear Power Plants. Not approved for submission to CSS. As the IAEA mentioned an upcoming meeting to discuss this document, NUSSC suggested being associated to the meeting. Canada, ENISS, EUR, France, Germany, Iran, Japan, Korea, Russia and USA volunteered to take part to this meeting. NUSSC requested the Secretariat to upload a clean version of the document, taking into account the comments provided by NUSSC, on the website before the end of June. NUSSC members shall transmit their comments on this version to the Secretariat before the end of July.</td>
<td>Secretariat NUSSC Members &amp; Observers</td>
<td>ASAP</td>
</tr>
<tr>
<td>2.10</td>
<td>DS487 - Draft Safety Guide: Design of Fuel Handling &amp; Storage Systems for NPPs Approved for submission to Member States.</td>
<td>Secretariat</td>
<td>ASAP</td>
</tr>
</tbody>
</table>
| 3.1 | DPP DS503 – Draft Safety Guide: Protection against Internal & External Hazards in Operation of NPPs  
Approved for submission to CSS providing NS-R-3 is mentioned as an interface document.  
NUSSC took note that the Secretariat considers that it is premature to extend the scope of the document beyond nuclear power plants. | Secretariat | ASAP |
Approved for submission to CSS. | Secretariat | ASAP |
| 3.3 | DPP DS505 - Draft Safety Guide: Source Monitoring, Environmental and Individual Monitoring  
Approved for submission to CSS. | Secretariat | ASAP |
| 3.4 | DPP DS507 - Draft Safety Guide: Seismic Hazards in Site Evaluation for Nuclear Installations  
Approved for submission to CSS. | Secretariat | ASAP |
| 3.5 | DPP DS508 - Draft Safety Guide: Application of Safety Principles & General Design Requirements for NPPs  
Not approved for submission to CSS.  
NUSSC noted that the current DPP is very ambitious and is unclear on the future content.  
However, NUSSC expressed its formal support for the IAEA to develop a Safety Standard dealing with DEC and practical elimination.  
The Secretariat should find a way forward with these topics and develop a new version of the draft DPP before the next NUSSC meeting. | Secretariat | Before next NUSSC Meeting |
| 4.1 | Four-years Term NUSSC Report  
The Secretariat will develop and updated version of the draft report, taking into account the comments and ideas expressed during the meeting.  
This new version will be uploaded on NUSSC website prior to next NUSSC meeting. | Secretariat NUSSC Members & Observers | ASAP |
| 4.2 | DS482 - Draft Safety Guide: Design of Reactor Containment Structure and Systems for NPPs  
NUSSC agreed with the technical modifications of the document on the basis of comments received, providing a modification of paragraph 4.138.  
The document should be reviewed by Technical editors and then submitted to NUSSC for confirmation of approval for the submission to CSS. | Secretariat | ASAP |
<p>| 4.3 | DS488 - Draft Safety Guide: Design of Reactor Core for NPPs | Secretariat | ASAP |</p>
<table>
<thead>
<tr>
<th></th>
<th>NUSSC agreed with the technical modifications of the document on the basis of comments received. The document should be reviewed by Technical editors and then submitted to NUSSC for confirmation of approval for the submission to CSS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4</td>
<td>DS491 - Draft Safety Guide: Deterministic Safety Analysis for Nuclear Power Plants NUSSC agreed with the technical modification of the document on the basis of comments received, providing that Table 2 is moved to an annex and the added sentence in paragraph 1.7 is improved. The document should be reviewed by Technical editors and then submitted to NUSSC for confirmation of approval for the submission to CSS.</td>
</tr>
<tr>
<td>4.5</td>
<td>Status of development of DS497 • NUSSC confirmed its interest to have regular information on DS497 development. • NUSSC supported the restructuring proposal of the IAEA: o No further update of NS-G-2.7 considering the ongoing update of DS442 and recently published SSG-40; o Capturing some ideas currently considered in DS502DPP in the update of NS-G-2.4. • NUSSC welcome the initiative of the Secretariat to draw, once DS497 is completed, lessons on the effectiveness of simultaneously revising several Safety Guides and requested to be informed of those conclusions. • Requested the secretariat to post the 7 guides in track changes mode before it is submitted to NUSSC Members and for Member States comments. The comments shall only be on modified paragraphs. NUSSC took note that the next IAEA CS on DS497 will take place 30 October -2 November 2017 in Vienna.</td>
</tr>
<tr>
<td>4.6</td>
<td>Status of DPP DS502 NUSSC took note that, considering the comments made at NUSSC42; the Secretariat cancelled the preparation of DS502 and may develop safety report on the subject.</td>
</tr>
</tbody>
</table>
ANNEX III List of Participants

<table>
<thead>
<tr>
<th>Country</th>
<th>Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>Mr D. Merrouche</td>
</tr>
<tr>
<td>Austria</td>
<td>Mr N. Müllner</td>
</tr>
<tr>
<td>Belgium</td>
<td>Mr B. De Boeck</td>
</tr>
<tr>
<td>Brazil</td>
<td>Mr J. A. Barretto De Carvalho</td>
</tr>
<tr>
<td>Canada</td>
<td>Mr Ried</td>
</tr>
<tr>
<td>Canada</td>
<td>Mr P. Webster</td>
</tr>
<tr>
<td>China</td>
<td>Mr W. Zhang</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Mr Z. Tipek</td>
</tr>
<tr>
<td>Egypt</td>
<td>Mr M. Ibrahim</td>
</tr>
<tr>
<td>Finland</td>
<td>Ms M. Järvinen</td>
</tr>
<tr>
<td>France</td>
<td>Mr F. Feron (Chairman)</td>
</tr>
<tr>
<td>France</td>
<td>Mr Wattele</td>
</tr>
<tr>
<td>Germany</td>
<td>Ms M. Rueffer</td>
</tr>
<tr>
<td>Hungary</td>
<td>Ms E. Retfalvi</td>
</tr>
<tr>
<td>Iran</td>
<td>Mr K. Sepanloo</td>
</tr>
<tr>
<td>Israel</td>
<td>Mr R. Harari</td>
</tr>
<tr>
<td>Japan</td>
<td>Mr T. Kurasaki</td>
</tr>
<tr>
<td>Japan</td>
<td>Mr T. Nakajima</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>Mr Y. H. Choi</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>Mr Hyung Joon Ahn</td>
</tr>
<tr>
<td>Libya</td>
<td>Mr K. M. Ihdayb</td>
</tr>
<tr>
<td>Mexico</td>
<td>Mr C. Camargo</td>
</tr>
<tr>
<td>Norway</td>
<td>Mr H. Mattsson</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Mr M. Rahman</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Mr M. Lankin</td>
</tr>
<tr>
<td>Russian federation</td>
<td>Mr Krechetov</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Mr. P. Uhrlik</td>
</tr>
<tr>
<td>South Africa</td>
<td>Ms K. Naidoo</td>
</tr>
<tr>
<td>Spain</td>
<td>Mr M. Rodríguez Martí</td>
</tr>
<tr>
<td>Sweden</td>
<td>Mr A. Hallman</td>
</tr>
<tr>
<td>UAE</td>
<td>Mr H. Al Khaafili</td>
</tr>
<tr>
<td>UK</td>
<td>Mr R. Moscrop</td>
</tr>
<tr>
<td>USA</td>
<td>Ms K. Brock</td>
</tr>
<tr>
<td>Observer from ENISS</td>
<td>Mr G. Bassing</td>
</tr>
<tr>
<td>Observer from ENISS</td>
<td>Mr J. Barbaud</td>
</tr>
<tr>
<td>Observer from ENISS</td>
<td>Mr P. Nocturne</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Observer from IEC</td>
<td>Mr J-P. Bouard</td>
</tr>
<tr>
<td>Observer from EUR</td>
<td>Ms C. Toth</td>
</tr>
<tr>
<td>WNA</td>
<td>Mr F. Lignini</td>
</tr>
</tbody>
</table>