44th Meeting of the Commission on Safety Standards

14–15 November 2018, IAEA Headquarters, Vienna

Report of the Meeting

30 January 2019

Overview of main results of the meeting

A. The following draft safety standards were endorsed:

- DS484: Draft Safety Requirements publication SSR-1 on Site Evaluation for Nuclear Installations.
- DS403: Draft Safety Guide on Decommissioning of Medical, Industrial and Research Facilities.
- DS471: Draft Safety Guide on Radiation Safety of X-ray Generators and other Radiation Sources Used for Inspection Purposes and for Non-Medical Human Imaging.
- DS481: Draft Safety Guide on Design of the Reactor Coolant System and Associated Systems in Nuclear Power Plants.
- DS482: Draft Safety Guide on Design of the Reactor Containment and Associated Systems for Nuclear Power Plants.
- DS483: Draft Safety Guide on Accident Management Programme for Nuclear Power Plants.
- DS486: Draft Safety Guide on Establishing the Safety Infrastructure for a Nuclear Power Programme.
- DS488: Draft Safety Guide on Design of the Reactor Core for Nuclear Power Plants.
- DS491: Draft Safety Guide on Deterministic Safety Analysis for Nuclear Power Plants.
- DS492: Draft Safety Guide on Human Factors Engineering in the Design of Nuclear Power Plants.

B. The following DPPs were approved:

- DS514: Draft Safety Guide on Equipment Qualification of Items Important to Safety in Nuclear Installations.
- DS515: Draft Safety Guide on Compliance Assurance for the Safe Transport of Radioactive Material.

C. Policy discussion:

- Discussion documents should be prepared and agreed in advance of the consultants' meeting in March 2019 to prepare a DPP for the Safety Report addressing issues airing from the 2012 UNSCEAR report.
- The Commission supports the completion of the initial reviews of SF-1, but considers that there is no urgent need to revise SF-1.
- The arrangements for checking draft standards for potential issues during translation should be extended. Funding should be sought for the translation of the 2018 Edition of the Safety Glossary.

1. Opening Session

1.1 Opening of the Meeting

Mr Juan Carlos Lentijo, Deputy Director General and Head of the Department of Nuclear Safety and Security, opened the 44th meeting of the Commission on Safety Standards and welcomed all members. He noted that there were two new CSS participants (from China and Japan) and a new representative from OECD-NEA as observer.

Mr Lentijo noted that the meeting agenda contained several important items, including the endorsement of the draft Safety Requirements on Site Evaluation for Nuclear Installations, DS484. When published (as SSR-1), this will complete the set of General and Specific Requirements in the revised long-term structure of the safety standards, which represents a major milestone. The agenda also included several Safety Guides, some of which were identified as priority publications in the work to revise standards to consider findings from the Fukushima Daiichi accident.

Mr Lentijo gave a brief summary of the recent Technical Meeting on the safety-security interface in which participants discussed challenges, lessons learned and practices in addressing the safety-security interface. Five group sessions considered interface issues in relation to the following:

- The Legal and Regulatory Framework;
- Nuclear Installations;
- Radioactive Material, Associated Facilities and Activities;
- Management Systems, Nuclear Safety and Nuclear Security Culture;
- Emergency Preparedness and Response.

The meeting prepared recommendations to the Secretariat, which will be evaluated to identify future initiatives on the management of the safety-security interface.

Finally, he informed the Commission about the following important events:

- Ministerial Conference on Nuclear Science and Technology: Addressing Current and Emerging Development Challenges, Vienna, Austria, 28–30 November 2018.
- International Conference on the Security of Radioactive Material: The Way Forward for Prevention and Detection, Vienna, Austria, 3–7 December 2018.
- International Conference on the Management of Spent Fuel from Nuclear Power Reactors, Vienna, Austria, 24–28 June 2019.
- International Conference on Research Reactors: Addressing Challenges and Opportunities to Ensure Effectiveness and Sustainability, Buenos Aires, Argentina, 25–29 November 2019.
- 5th International Conference on Effective Regulatory Systems for Nuclear and Radiation Safety, Vienna, Austria, November 2019.
- 3rd International Conference on Nuclear Security at ministerial level, Vienna, Austria, February 2020.

Mr Lentijo concluded by thanking all participants for their efforts and wished them a very productive meeting.

1.2 Introductions; Adoption of the agenda; Adoption of the 43rd CSS meeting report

Ms D. Drábová, Chair of the Commission, welcomed all participants. A complete list of participants is provided in Annex I.

The agenda for the meeting was approved, subject to the inclusion of additional items under Agenda Item 5 (any other business) proposed by Mr A. González. The final agenda is provided in Annex II.

Ms Drábová informed the Commission that the draft report of the 43rd CSS meeting had been made available: comments had been received from France, and these had been accepted. The report of the 43rd CSS meeting was approved and would be posted on the CSS website **[Annex III, Action 44.01]**.

1.3 Administrative arrangements for the meeting; Status of the overall structure; Status of the endorsed standards; Response to actions from the previous CSS meetings

Mr D. Delattre informed the Commission of the administrative arrangements for the meeting.

Mr Delattre presented the status of the roadmap for the long term structure of the General Safety Requirements and the Specific Safety Requirements, as well as the status of the endorsed safety standards. He informed the Commission that one Safety Requirements publication, seven General Safety Guides and four Specific Safety Guides had been published since the last CSS meeting. Mr Delattre noted that this included three Safety Guides that had been endorsed at the previous CSS meeting. He also noted that two safety standards endorsed by the Commission were in the publishing process.

Mr Delattre presented information on timescales for publication, which showed that these had reduced significantly. The total number of published safety standards was 125, representing a small reduction consistent with the long term structure.

Comprehensive, up-to-date information on the status of all standards (published and in draft), as well as on the status of drafts of the Nuclear Security Series that are interface documents, is available at: http://www-ns.iaea.org/committees/files/CSS/205/status.pdf.

Mr Delattre also provided information on progress with the actions from the 43rd CSS meeting: see Annex IV.

Finally, Mr Delattre distributed, for further consideration in 2019 in view of the preparation of the end-of-term report, a progress report on the CSS main interests during its sixth term.

2. Reports from the Safety Standards Committees and the Nuclear Security Guidance Committee

Note: the actions of the Safety Standards Committees in relation to the 2012 UNSCEAR Report are described under Agenda Items 5.1–5.3.

2.1 Emergency Preparedness and Response Standards Committee (EPReSC)

Ms A. Heinrich, EPReSC Chair, reported on the 6th and 7th meeting of EPReSC. During these two meetings, EPReSC had approved seven draft standards for submission to CSS, eight draft standards (of which seven are covered by DS497) for submission to Member States for comment, and three DPPs covering a total of six proposed publications. EPReSC had previously approved the DPP for DS513, but this was subsequently changed to a conditional approval while the views of the other SSCs were sought (see Agenda Item 2.7). EPReSC had also cleared one draft of the Nuclear Security Series, and had a joint meeting with NSGC to discuss interface issues.

EPReSC had also approved a revision to its own operating guidelines, and had discussions on the revision of a number of the EPR Series publications and the INES Manual. EPReSC had also discussed the International Symposium on Communicating Nuclear or Radiological Emergencies to the Public, which was considered to have been a very successful event.

In addition, EPReSC had received information on a variety of topics, including: activities to support the implementation of GSR Part 7; EPRIMS development; EPR arrangement in Bulgaria and Sudan; as well as reports from ENISS, FAO, OECD/NEA, WHO and WNTI.

Ms Heinrich's presentation is available on the CSS web site.

Mr R. Jammal asked whether EPReSC had noted any conflict between the INES Manual and DS475. Ms Heinrich replied that EPReSC has concluded that the two publications have different purposes and do not believe there are any conflicts.

Mr González asked how the conclusions of the Symposium on Communicating Nuclear or Radiological Emergencies to the Public would be taken forward. Ms Heinrich replied that EPReSC is first planning to capture these conclusions, and then consider how they might be implemented within the safety standards.

2.2 Nuclear Safety Standards Committee (NUSSC)

Mr P. Webster, NUSSC Chair, reported on the 45th NUSSC meeting at which four draft standards had been approved for submission to the CSS, and one draft standard had received technical approval. NUSSC had also approved one DPP and cleared one draft of the Nuclear Security Series. NUSSC did not approve the DPP for DS513 and the chairs of the SSCs were asked to consider a revised DPP (see Agenda Item 2.7).

NUSSC considered suggestions for producing documents on the time frame for regulatory decision making and on industrial digital devices of limited functionality, including smart devices. NUSSC concluded that there was no need for guidance on regulatory decision making, and that smart devices would be discussed at NUSSC 46. NUSSC had also held discussions on priorities for their 8th term and received a feedback presentation from Poland on the use of the safety standards.

Mr Webster's presentation is available on the CSS web site.

Ms K Alm-Lytz asked whether the DPP for DS513 included a consideration of other international standards, such as those issued by ISO. Mr Delattre replied that the DPP does refer to relevant ISO standards and that the Secretariat holds meeting with ISO to ensure that standards are compatible and consistent. Mr Jammal asked about the approach to using other international standards as references in the safety standards. Mr Delattre confirmed that international standards are often referenced; however, he noted that updates to other international standards would not be reflected in safety standards published in the traditional 'book' format, but that such changes can be reflected in NSS-OUI.

Mr Jammal enquired about the expected timescales for the Technical Editorial Review of draft standards. Ms K. Asfaw replied that there was no delay in the Technical Editorial Review process; however, there is a delay in final editing due to workload and limited resources.

Mr Jammal asked whether NUSSC had discussed existing deadlines used by various regulatory bodies in discharging their core functions. Mr Webster replied that this had been discussed, but no overall conclusions had emerged.

Mr González noted the tendency to refer to 'SMRs and transportable reactors' in a single phrase, and stressed that these were two different technologies, each of which needed to be considered separately.

Mr R. Lewis congratulated NUSSC on overseeing the review and revision of a large number of Safety Guides, and asked whether NUSSC had sufficient resources to meet this challenge. Mr Webster agreed that it was challenging and there was a need to prioritize the work and consider how to make improvements in terms of project management.

Mr A. Hart suggested that the scope of the text in DS489 was broader than the technical issues associated with the storage of spent nuclear fuel, and that care was needed to focus on the specific topic.

2.3 Radiation Safety Standards Committee (RASSC)

Ms R. Bly, RASSC Chair, reported on the 44th RASSC meeting at which five draft standards had been approved for submission to the CSS. In addition, RASSC had approved one draft standard for submission to Member States for comment, and one DPP. RASSC did not approve the DPP for

DS513 due to questions about the scope, the application to small facilities, and the impact on existing Safety Guides.

RASSC had held discussions and established a Steering Group on radionuclides in food and drinking water in non-emergency situations, and had agreed that the work priorities for 2018–2020 were: implementation of GSR Part 3; updated guidance on exemption and clearance; the graded approach to regulation; radionuclides in food and drinking water; and the use of radiation sources for non-medical purposes.

Ms Bly's presentation is available on the CSS web site.

Mr González asked whether it was the intention to combine the Safety Guides on exemption and clearance. He also noted that Argentina was working with the Secretariat on the issue of radionuclides in food and drinking water, and suggested that such bilateral arrangements were a useful way of addressing specific issues. On the subject of radionuclides in drinking water, he felt that this should be the subject of future CSS policy discussions. Mr González also suggested that the implementation of revised dose conversion factors for radon was a very significant issue. Ms Bly replied that the drafts of the Safety Guides on exemption and clearance would be reviewed to consider whether they could usefully be combined, that RASSC was looking forward to seeing the conclusions of the bilateral work on radionuclides in food and drinking water, and that a Technical Meeting on dose conversion factors for radon was planned for 2019.

Mr J. Dies Llovera asked whether the presentations from the SSCs could be made available to CSS members prior to the meeting. Mr Delattre replied that the presentations were typically submitted immediately before the CSS meeting, and that advance distribution would not be practicable.

2.4 Transport Safety Standards Committee (TRANSSC)

Mr P. Hinrichsen, TRANSSC Chair, reported on the 36th TRANSSC meeting at which five draft standards had been approved for submission to the CSS. TRANSSC had also approved two draft standards for submission to Member States for comment, and one DPP.

TRANSSC had also reviewed the status of the safety standards directly related to transport safety and had agreed the topics to be addressed by the TRANSSC Technical Expert Groups at the next meeting. TRANSSC had also discussed a draft TECDOC on the safety-security interface and had received presentations on the use of safety standards in Brazil and China.

Mr Hinrichsen's presentation is available on the CSS web site.

Mr T. Elsner thanked TRANSSC for overseeing the publication of SSR-6 (Rev. 1), and noted that DS496 (the advisory material to SSR-6 (Rev. 1)) contained a reference to a TECDOC on dual-purpose casks that had not yet been published. Mr S. Whittingham replied that the intention was to arrange for the publication of this TECDOC before the publication of DS496. He also informed the CSS members that a future comprehensive review of the scope of the advisory material was planned, and that a meeting was being arranged in 2019 to begin this process. Mr Dies Llovera supported the comments made by Mr Elsner on the need to publish the TECDOC on dual-purpose casks expeditiously.

Mr H. Wanner noted the interfaces between transport safety and security and with EPR, and enquired about the interactions between TRANSSC and other interested parties. Mr Hinrichsen replied that TRANSSC encouraged interactions with other relevant international bodies, and had worked jointly with EPReSC on the revision of TS-G-1.2 (DS469), although he accepted that more efforts could be made to arrange joint sessions with the other SSCs and with NSGC. Ms Heinrich confirmed that DS469 had involved technical officers from the Transport Safety Unit and from the IEC to ensure a coordinated approach to the revision of TS-G-1.2.

Mr G. Caruso noted that the recent Technical Meeting on the interfaces between safety and security had addressed all areas, and that this has prompted further discussions on the approach to preparing dedicated publications.

Mr González suggested that more could be done to integrate transport safety and security in the safety standards and thereafter in the UN Orange Book and Model Regulations. He also noted that 'denial of transport' was an issue that affected both safety and security, and perhaps this could be addressed through a Code of Conduct. Mr Whittingham replied that this was complex issue, and that 'facilitation of transport' had been discussed by TRANSSC and the Transport Safety Unit. It was not clear whether a Code of Conduct was the best way of resolving this issue. He also stressed that including additional security requirements only in relation to radioactive material (i.e. Class 7 dangerous goods) could make the issue more difficult to resolve.

2.5 Waste Safety Standards Committee (WASSC)

Ms M. Golshan, WASSC Chair, reported on the 45th WASSC meeting, which had approved five draft standards for submission to the CSS, and one draft standard had received technical approval. The DPP for DS513 had been approved by WASSC, subject to the decision of the Chairs of the SSCs (see Agenda Item 2.7).

WASSC had discussed priorities for 2018–2020, which include developing guidance on materials management in existing exposure situations, transition from operation into decommissioning, operational safety for geological disposal facilities, and stakeholder involvement in planning disposal. WASSC received updates on the development of DS459, DS477, DS499 and DS500, and had considered the proposed revision of WS-G-5.1. WASSC had received a presentation from the EC and had agreed joint sessions with NSGC and TRANSSC at future meetings.

Ms Golshan's presentation is available on the CSS web site.

Ms V. Ranguelova (EC) stressed the importance of the transition period between operation and decommissioning, and the need to ensure liaison between WASSC and NUSSC. Mr Delattre noted that both draft Safety Guides on decommissioning included a section on this topic.

Mr I. Lund commented that further guidance on preparation for decommissioning would be useful. Mr Dies Llovera also noted that there were variations in the approach to the removal of spent fuel prior to decommissioning, and that further guidance on this topic would also be useful. Ms Golshan agreed to ask WASSC to consider these issues.

2.6 Information on the meetings of the Nuclear Security Guidance Committee (NSGC)

Mr J. Facetti, Vice-chair of NSGC, reported on the 13th NSGC meeting at which four draft Nuclear Security Series publications had been approved for submission to DDG-NS for approval for publication. Two draft publications had been approved for submission to Member States for comment. Two DPPs had also been approved. In terms of interface documents, NSGC had cleared six draft standards for submission to the CSS, one draft standard for submission to Member States for comment, and two DPPs.

NSGC had a joint session with EPReSC to discuss drafts of common interest, and also held discussions on a variety of topics, including the NSS Roadmap, the Security Glossary, feedback on the use of nuclear security guidance, and the results of recent meetings on the safety–security interface. NSGC had also considered the reviews of the Safety Fundamentals and the Security Fundamentals, and had concluded that these should remain as separate processes.

Mr Facetti's presentation is available on the CSS web site.

Mr González opined that the preparation of combined safety and security publications should be taken more seriously. He suggested that confusions about the scope of regulatory security, as compared to national security, might be one reason why progress was so difficult. Mr Delattre agreed that this was

an important issue, but it was a long term process that required commitment from both the safety and security communities.

Mr Wanner agreed with the previous comments and recommended that ways of making more progress should be explored. Mr A Hart also agreed that progress had been slow and suggested that the focus should be on the safety-security interface.

Mr L. Vinhas (AdSec) suggested that one reason for slow progress was that the safety and security communities often had different perspectives on the scope of each discipline. He informed the CSS members that AdSec was working with INSAG to produce a high level document on the safety-security interface.

Ms Alm-Lytz suggested that if a very ambitious plan was to be considered, this might include the integration of the Safety Fundamentals and the Security Fundamentals. Mr Lund commented that provisions for both safety and security had been combined in the Swedish regulations.

Mr Caruso concluded the discussion by informing the Commission that, based on the GC resolution, the Secretariat intends to issue a publication that addresses the safety-security interface. He also indicated that a more ambitious plan would first need to be presented to the Board of Governors for their approval.

2.7 Information on the meeting of the Chairs on 13 November 2018

Mr Delattre reported that the meeting of the Chairs of the Review Committees and of the Commission had addressed the following topics:

- Update on actions arising from the 2012 UNSCEAR Report (see Agenda Items 5.1–5.3);
- Initial feedback from the Technical Meeting on the safety-security interface;
- The DPP for DS513;
- Update on the status and development of NSS-OUI;
- Information on the findings of an external audit on the IAEA publication process;
- Future revision of the SPESS suite of documents, including the list of performance indicators;
- Problems with access to drafts on the SSC websites.

Mr Delattre reported that the meeting had discussed possible ways of resolving the issues with the DPP for DS513, and it had been agreed with Mr Webster that the DPP would be reworded to clarify the objectives of DS513 and its place within the overall set of safety standards (including future revisions), and the DPP would then be resubmitted to all the Review Committees for approval.

3. Approval of draft publications and DPPs

3.01. Draft Safety Requirements DS484 on Site Evaluation for Nuclear Installations

Mr O. Coman presented the draft Safety Requirements publication and provided an overview of its background, development and review, as well as a summary of the resolution of comments received from Member States during the preparation of the draft. Mr Coman indicated that three comments and one request for clarification had been received from the CSS member from Japan; all the comments had been accepted and clarification was provided, as requested.

Mr Coman’s presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC strongly supported the draft publication.

Mr Sakurada congratulated the Secretariat on the preparation of an important Safety Requirements publication, which has received special attention from Japan; he confirmed that Japan was satisfied with the resolution of their comments.

Mr Delattre explained that DS484 had already been approved by the Publications Committee, and that the intention was for the draft to be submitted to the meeting of the Board of Governors in March 2019.

The Commission endorsed the draft for submission to the Board of Governors for approval for publication.

3.02 Draft Safety Guide DS403 on Decommissioning of Medical, Industrial and Research Facilities

Mr V. Ljubenov presented the draft Safety Guide, including the background and development process, and the associated challenges and technical issues. He described the structure of the proposed new Safety Guide and provided a summary of the resolution of comments received from Member States during the preparation of the draft. No comments had been received from the CSS.

Mr Ljubenov's presentation is available on the CSS website.

Ms Golshan confirmed the support of WASSC for the draft Safety Guide, and noted the very lengthy process involved in preparing it for publication.

The Commission endorsed the draft for publication.[1]

3.03. Draft Safety Guide DS471 on Radiation Safety of X-ray Generators and other Radiation Sources Used for Inspection Purposes and for Non-Medical Human Imaging

Ms O. German presented the draft Safety Guide, including the scope of the publication (in terms of the facilities, activities and inspection devices covered) and the structure. Ms German provided a summary of the resolution of comments received from Member States during the preparation of the draft. No comments had been received from the CSS.

Ms German's presentation is available on the CSS web site.

Ms Bly confirmed the support of RASSC for the draft Safety Guide.

Mr M. Markovits asked whether NSGC had commented on the draft. Ms German replied that a few comments had been provided during an NSGC meeting, and that these comments had subsequently been addressed.

Mr González offered his support for the publication and made some suggestions to be considered in the final editing regarding the use of personal references.

Mr Delattre reminded the Commission that the intention was to present the final edited version of draft standards for their endorsement; however, this had not been possible for most of the draft Safety Guides, including DS471. To avoid undue delays, his suggestion was to present these drafts to the Commission at this meeting, and then subsequently post the final edited versions on the CSS website. CSS members would be notified of this and given a period of two weeks to provide comments; at the end of this period, if there were no objections the draft would considered to be endorsed (i.e. by 'silent approval'). The Commission agreed to Mr Delattre's proposal **[Annex III, Action 44.02]**.

The Commission endorsed the draft for publication, subject to subsequent silent approval of the final edited version.

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[1] Since this draft was discussed at the end of the meeting after the discussion of the silence approval process for edited draft described in item 3.03, this silence process also applies for DS403.

3.04. Draft Safety Guide DS481 on Design of the Reactor Coolant System and Associated Systems in Nuclear Power Plants

Ms C. Toth presented the draft Safety Guide, including the background and scope of the publication. Three comments had been received from the CSS member from India, and all of these had been addressed.

Ms Toth's presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication.

Mr R. Sharafutdinov asked for more information on how comments from Member States had been resolved. Ms Toth replied that comments had been received from NUSSC before and after the Technical Editorial Review, and that all of these comments had been resolved through dialogue with the individual Member States.

Mr González suggested that the text in para. 3.123 should be checked for consistency.

The Commission endorsed the draft for publication, subject to subsequent silent approval of the final edited version.

3.05. Draft Safety Guide DS482 on Design of the Reactor Containment and Associated Systems for Nuclear Power Plants

Ms Toth presented the draft Safety Guide, including the background and scope of the publication. No comments had been received from the CSS.

Ms Toth's presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication.

Mr González commented that the translatability of the text should be considered, and that the distinctions between confinement and containment should be clearly understood. Mr G. Rzentkowski explained these concepts and further explained that for a nuclear power plant the internal shell provides the containment structure and the external shell provides for a secondary confinement function.

The Commission endorsed the draft for publication, subject to subsequent silent approval of the final edited version.

3.06. Draft Safety Guide DS483 on Accident Management Programme for Nuclear Power Plants

Mr A. Ulses presented the draft Safety Guide, including an overview of the draft and the status of the publication process. Two comments had been received from the CSS member from the Republic of Korea, and these had been accepted.

Mr Ulses' presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication, and noted that the need for a revised Glossary definition had introduced some delays in the publication process.

Ms Alm-Lytz commended the draft Safety Guide and noted that it was a difficult task to address many different national accident management practices. With regard to this, there were some specific issues with the text, but overall the result was satisfactory. Ms Alm-Lytz also commented that the set of Safety Guides being revised under DS497 should be consistent with DS483.

Mr Hart also agreed that addressing the wide variety of approaches to accident management was very difficult. He suggested that paragraphs 3.1 and 3.2 in the draft might be swapped around, and Mr Ulses agreed to consider this.

Ms Rigail also commended the draft and asked whether the impact of the new definition in the Safety Glossary had been considered. Mr Ulses replied that this had been considered in the meeting of the Chairs.

The Commission endorsed the draft for publication.

3.07 Draft Safety Guide DS486 on Establishing the Safety Infrastructure for a Nuclear Power Programme

Mr T. Kobetz presented the draft Safety Guide, including the background and development process. He gave an overview of the proposed new Safety Guide and provided a summary of the resolution of comments received from Member States during the preparation of the draft. No comments had been received from the CSS.

Mr Kobetz's presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication.

Mr Jammal agreed that the Safety Guide was needed, and commented that self-assessment was an important issue for embarking countries. Mr Kobetz agreed with this and indicated that self-assessment was part of Phase 2, and furthermore that Phase 3 included self-assessment as part of a full IRRS mission.

Mr Dies Llovera noted the recommendations in paragraph 2.189 in relation to training, and suggested that a similar approach should be adopted in relation to education. He also suggested that the focus in education and training should be on leadership and management as well as nuclear technology.

Ms Rigail commended the draft and suggested that in paragraph 2.246 there was a potential inconsistency in respect of the use of the phrases 'waste disposal' and 'waste management'. Mr Kobetz agreed to address this.

Mr González commented that an additional issue for embarking countries was the loss of the design authority during the process of establishing the safety infrastructure.

The Commission endorsed the draft for publication, subject to subsequent silent approval of the final edited version.

3.08. Draft Safety Guide DS488 on Design of the Reactor Core for Nuclear Power Plants

Ms Toth presented the draft Safety Guide, including the background and scope of the publication. No comments had been received from the CSS.

Ms Toth's presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication.

The Commission endorsed the draft for publication, subject to subsequent silent approval of the final edited version.

3.09. Draft Safety Guide DS491 on Deterministic Safety Analysis for Nuclear Power Plants

Mr P. Villalibre presented the draft Safety Guide, including the background and development process, and the scope and status of the draft. No comments had been received from the CSS.

Mr Villalibre's presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication.

Mr Sharafutdinov commented that a balance was required between deterministic approaches and probabilistic approaches in the safety analysis of NPPs, and enquired how this was addressed in the Safety Guides. Mr Villalibre replied that probabilistic considerations are frequently used in deterministic safety analysis and this is reflected in the different sections of the draft Safety Guide;

additionally to that, deterministic safety analysis is applied to demonstration of success criteria and development of accident sequences in Level 1 PSA and Level 2 PSA, as it is described in the Annex to DS491. Regarding other Safety Guides Mr Delattre indicated that SSG-3 and SSG-4 specifically address Level 1 and Level 2 probabilistic safety analysis, respectively. Mr González indicated that perhaps it could be better to review the Safety Guides for deterministic safety analysis and for probabilistic safety analysis together.

The Commission endorsed the draft for publication, subject to subsequent silent approval of the final edited version.

3.10. Draft Safety Guide DS492 on Human Factors Engineering in the Design of Nuclear Power Plants

Mr A. Duchac presented the draft Safety Guide, including the background to the application of human factors engineering in the design of NPPs, and gave an overview of the draft. Four comments had been received from the CSS member from the Republic of Korea. Two of these had been accepted; the other two comments were rejected because they were not consistent with the DPP previously approved by the CSS.

Mr Duchac's presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication.

Mr González commented that 'human factors engineering' was not easy to translate. Mr Duchac replied that this phrase was already in common use.

The Commission endorsed the draft for publication, subject to subsequent silent approval of the final edited version.

3.11. Draft DPP DS514 for a Safety Guide on Equipment Qualification of Items Important to Safety in Nuclear Installations

Mr Duchac presented the draft DPP, which was for a new Safety Guide to cover gaps in existing safety standards for nuclear installations. Mr Duchac described the justification and scope of the publication. A total of 13 comments had been received from the CSS members from Germany, the Republic of Korea and Israel. All the comments had been addressed (8 accepted, 5 rejected) and the resolutions had been provided to the individual CSS members.

Mr Duchac's presentation is available on the CSS web site.

Mr Webster confirmed that NUSSC supported the draft publication.

Ms Alm-Lytz commented that the Safety Guide would be very welcome. Mr Markovits enquired about the proposed title. Mr Duchac replied that this was chosen to be consistent with SSR-2/1 (Rev. 1). Ms Rigail asked how the comments on analysis of operating experience had been resolved. Mr Duchac confirmed that these comments had been accepted.

Ms Ranguelova (EC) congratulated IAEA on the progress made in issuing Safety Guides, and stressed that it was important that they should include guidance on the application of recommendations to existing nuclear power plants.

The Commission approved the DPP.

3.12 Draft DPP DS515 for a Safety Guide on Compliance Assurance for the Safe Transport of Radioactive Material

Mr E. Reber presented the draft DPP, which was for a revision of TS-G-1.5. Mr Reber described the justification and scope of the publication, and summarized the development process. Three comments had been received from the CSS member from Israel, and one comment from the CSS member from the Republic of Korea. These comments had been accepted and the way forward had been agreed.

Mr Reber's presentation is available on the CSS web site.

Mr Hinrichsen confirmed that TRANSSC supported the draft publication, although it was noted that the DPP had accidentally not been submitted to EPReSC. It was intended that the DPP would be submitted to the next EPReSC meeting for their approval.

Mr González noted that EPR was a significant issue in transport safety; consequently, the approval of EPReSC was important. He also suggested that 'denial of shipment' should be addressed in the Safety Guide.

The Commission approved the DPP.

4. DPPs and Draft Nuclear Security Series publications for information

None submitted.

5. Policy discussions

5.1. CSS action 42.03: Reports from the Safety Standards Committees on their reviews of which safety standards (draft and published) could be strengthened in response to the conclusions of the 2012 UNSCEAR report.

EPReSC

Ms Heinrich gave a presentation on the findings of the comprehensive EPReSC review. The main conclusion was that most of the safety standards related to EPR, such as GSR Part 7, GSG-2, GSG-11 and DS475, already adequately reflect the conclusions of the 2012 UNSCEAR report. Nevertheless, EPReSC considered that there are potential opportunities in the revision of GS-G-2.1 (DS504) and GSG-2 to further address the UNSCEAR conclusions.

Ms Heinrich's presentation is available on the CSS web site.

Mr González noted that EPReSC had been proactive in implementing this CSS action; however, he suggested that further improvements might still be identified by examining more closely the phraseology used in safety standards in relation to the inference of risk.

NUSSC

Mr Webster gave a brief presentation on the findings of the NUSSC review. The main conclusion was that there is no direct impact of the UNSCEAR report on those safety standards for which NUSSC has the lead. Mr Webster did suggest that there might be more of an impact when considering the revision of GSG-6. This could be an opportunity to broaden the scope of public communication beyond the UNSCEAR report to include explaining how regulators use the results of analyses which predict the impact of nuclear installations on the public (such as PSA Level 3 for accidents or environmental assessments at the siting stage).

Mr Webster's presentation is available on the CSS web site.

Mr González suggested that a Safety Guide on Level 3 PSA would be useful to help clarify some of the confusion surrounding the expression of probabilistic events and risks. Mr Lewis commented that Level 3 PSA is not intended as a communication tool, although he agreed that communication by the regulatory body was important in EPR. Mr Jammal agreed with this, and added that Level 3 PSA does not determine what is safe and there is no international agreement on its application. Ms Golshan and Mr S. Bhardwaj also agreed that Level 3 PSA is not suitable as a public communication tool. Mr González responded that there was still a need to reduce confusion among the experts, if not the public.

RASSC

Ms Bly gave a brief presentation on the findings of the RASSC review. The main conclusion was that RASSC confirmed its opinion from 2015 that the UNSCEAR report has no direct and immediate implications for the IAEA safety standards. Notwithstanding this, RASSC agreed that in future all safety standards presented to it will be scrutinized to determine whether they could be strengthened in relation to the issues raised in the UNSCEAR Report.

Ms Bly's presentation is available on the CSS web site.

Mr Lewis noted that UNSCEAR and ICRP were present at RASSC meetings, and asked whether they also agreed with the conclusions. Ms Bly confirmed that both organizations had participated in the discussions, and that these discussions were expected to continue at the next RASSC meeting.

Mr Lund commended the work of RASSC, and said that it was to be expected that different Review Committees might have different views on subjects such as this. Ms Rigail supported this and encouraged RASSC to continue with their planned work.

Mr Jammal stressed the importance of interconnectivity between international organizations, for example, to maintain a consistency in phraseology and terminology. He also noted the RASSC intention for an ongoing review of new standards, which was important to ensure that facilities and activities yield an overall benefit.

TRANSSC and WASSC

Mr Hinrichson reported that this action had been discussed by TRANSSC and had concluded that there was no impact on the safety standards related to transport safety. Further discussion was planned, and a full report would be provided to the next CSS meeting.

Ms Golshan reported that WASSC had also held discussions on this action and had concluded that there was no impact on the safety standards related to waste safety.

Mr Caruso thanked the SSCs for their work, and commented that the issues raised by their reviews will hopefully be clarified in the planned Safety Report (see Agenda Item 5.2). Consequently, the SSCs might want to revisit the conclusions of their reviews after the Safety Report is published.

5.2 Progress report on the preparation of a Safety Report to address the action 43.03 from the 43rd CSS meeting

Mr Delattre reported that a Consultants' Meeting was planned for March 2019 to prepare the DPP for a Safety Report to address:

- How to apply the concept of retrospective attribution of radiation health effects;
- The prospective inference of health risks from radiation exposures;
- The prediction of notional health effects for comparative purposes (e.g. the use of collective dose).

As a Safety Report, it would not be subject to the SPESS approval process; however, in this case is expected that the CSS would be consulted at the main stages of the preparation of the publication; for example, the DPP would be presented at the next CSS meeting. Mr Delattre confirmed that the meeting was originally planned for November 2018; however, it had not been possible to find a time in which all the participants were available.

Mr Caruso confirmed that it was originally planned to start the process earlier than 2019, and indicated that the aim now was to produce discussion papers on the key points in advance of the meeting in March 2019 to facilitate progress.

Mr Webster indicated that the meeting of the Chairs was keen to get clarification from the CSS on the objective and target audience of the Safety Report. A general discussion followed in which it was

agreed that the target audience for the Safety Report should be experts — for example, in regulatory bodies and operating organizations — not the general public. It was also suggested that the report could be of interest to the media. It was agreed that discussion documents should be prepared in order that the Terms of Reference of the Consultants' Meeting, and the objective, scope and target audience of the Safety Report can be agreed in advance **[Annex III, Action 44.03]**.

Mr Lewis asked whether NSGC would be involved in the meeting. Mr Delattre replied that no representative from NSGC had been proposed, but that further enquiries would be made at the next NSGC meeting **[Annex III, Action 44.04]**. Mr Markovits asked whether the final conclusions of the RASSC working group would be considered. Ms Bly replied that a summary of the conclusions would be presented to RASSC and this summary could also be made available for the Consultants' Meeting.

Mr Caruso initiated a discussion about the technical content of the Safety Report. It was agreed that the publication needed to be built on sound scientific arguments, but it was also noted that much of the underlying science has already been addressed by UNSCEAR. Mr Lund suggested that the Safety Report needed to focus on the practical application of the science, especially in terms of communicating risk. Mr Gonzales agreed that defining 'radiation risks' and putting these risks into perspective were key issues.

Mr Wanner commented that a key practical issue was ensuring that protective measures are only implemented if they do more good than harm, and suggested that this should be addressed in the Safety Report. Mr Vinhas (AdSec) agreed that guidance on this issue was important, especially in relation to communications with the public. Mr Caruso indicated that such issues had been addressed to some extent in the report on the Fukushima Daiichi accident, but also accepted that more work could be done.

Mr Elsner suggested that there was also a need to provide guidance to decision makers. Mr Lewis commented that the role of the regulatory body and other authorities was to provide decision makers with the best technical judgement. He also suggested that there was a need for guidance and tools for regulatory bodies and operating organizations to ensure that the information was provided to decision makers in a more coherent manner.

5.3 CSS action 43.04: Reports from the SSCs on the review of SF-1

RASSC

Ms Bly reported (in the presentation provided under Agenda Item 5.1) that RASSC had established an electronic working group to consider the review of SF-1. A draft report had been prepared and this will be discussed at the next RASSC meeting. Some issues with SF-1 had already been identified (e.g. in terms of consistency with other Standards and its application to the ICRP system of protection); however, the general feeling was there was no urgent need to revise SF-1.

Ms Bly's presentation is available on the CSS website.

EPReSC

Ms Heinrich presented the conclusions of EPReSC, who had established a working group on the issue and had developed a questionnaire to collect feedback from all EPReSC members and observers. Overall, opinion was divided on whether SF-1 needed to be revised. There was a consensus that SF-1 could be improved, for example to make it more consistent with GSR part 3 and 7, but also a consensus that there was no urgent need at this stage for it to be revised.

Ms Heinrich's presentation is available on the CSS website.

Mr González congratulated EPReSC on their review process, and noted that principle 4 of SF-1 (Justification) did not reflect the application of this principle to different exposure situations, as was done in GSR Part 3 and GSR Part 7.

NUSSC

Mr Webster presented the conclusions of NUSSC, who had also established a working group to consider this issue. Like the other SSCs, possible improvements and additions to SF-1 had been identified, including the possibility of combining or expanding specific principles. However, NUSSC agreed with the other SSCs that there was no urgent need to revise SF-1.

Mr Webster's presentation is available on the CSS website.

Ms Drábová noted that a consistent message was emerging from the Committees, i.e. that there was no urgent need to revise SF-1. Mr González asked if NUSSC had considered whether the Vienna Declaration on Nuclear Safety had any impact in terms of the need to revise SF-1. Mr Webster replied that NUSSC view was that the principles of the Vienna Declaration were already adequately covered by the safety standards. Ms Alm-Lytz supported the conclusions reached by NUSSC.

TRANSSC and WASSC

Mr Hinrichsen reported that TRANSSC had discussed the revision of SF-1, and had concluded that the 2012 UNSCEAR report was not sufficient reason to revise SF-1. The overall view of TRANSSC was not to revise SF-1 at this time.

Ms Golshan reported that WASSC had also discussed this issue and reached the same conclusions. However, Ms Golshan noted the work done by the other committees as part of their reviews and was intending to organize a more detailed survey of WASSC views.

Ms Drábová informed the Commission that a letter from ENISS had also been received on this issue. ENISS supported the reviews of SF-1 but is not convinced that a revision is needed at this time. Ms Drábová noted that there was a clear consensus to support the completion of the reviews of SF-1 **[Annex III, Action 44.05],**. but there was no urgent need to revise SF-1 at this time.

Mr González agreed that the 2012 UNSCEAR report was not, by itself, a sufficient reason to revise SF-1. However, he suggested that other reasons, such as consistency with GSR Part 7, were more pressing. Ms Rigail commented that any document can be improved; however, it was important to remember that resources were finite, and that priorities needed to be established. Ms Rigail stated that France did not support the revision of SF-1: it might not address every issue in a way that we might wish, but this does not prevent the publication of other safety standards that do fully address these issues. Ms Rigail suggested that it was more important to complete the existing programme of revisions to the safety standards. Mr Sharafutdinov, Ms Alm-Lytz, Mr Lewis, Mr Lund, Mr Wanner, Mr Powell and Mr Hart all expressed their support for these views.

5.4 Any other business

Interfaces between safety and security

Mr González initiated the discussion by suggesting that more actions were needed on addressing this issue, for example in relation to the transport of radioactive material.

Mr Markovits commented that there had been progress in terms of the level of cooperation and the cross-checking of safety publications and nuclear security publications; he suggested that continuing to seek progress in these areas was the best way forward. Mr Jammal agreed that cooperation had improved - the CSS should support this, but should not be the main driver of this process.

Mr Whittingham commented that there was already good cooperation between the areas of safety and security in respect of transport, and cited the planned TECDOC on the safety-security interface as an example of this. He also stated that it would be better to consider the integration of security requirements for all dangerous goods, rather than just radioactive material. This had been done within the European Agreement on the Transport of Dangerous Goods (ADR), and provided an effective platform for integrating security requirements.

Mr Vinhas (AdSec) also noted that there will be a TECDOC on the safety-security interface for research reactors. He acknowledged the difficulties of integrating two separate communities, and suggested that there was a place for a combined safety and security publication containing examples of good practice.

Mr Lewis agreed that there was a need to ensure a good interface between safety and security, but that combining safety and security in a single publication was a secondary issue. Mr Hart agreed with this and suggested that the next steps should consider what actions are necessary to improve operational safety and security.

Mr Wanner suggested that the focus shoud remain on the safety-security interface, and on producing suitable publications on this subject. Ms Alm-Lytz and Mr Elsner supported this suggestion. Mr Delattre confirmed that the Secretariat were considering the issue of such publications.

Translation of safety standards

Mr González suggested that the final drafts of publications should be checked for potential issues with future translations – this would help avoid errors in translation and generally facilitate the process. Ms Asfaw replied that that this was already done in relation to the Safety Requirements publications, but agreed that this could be extended to other safety standards **[Annex III, Action 44.06]**.

Ms Asfaw indicated that the 2018 Edition of the Safety Glossary would be published, but there were no current plans to translate this. Mr Dies Llovera commented that the translation of the Safety Glossary would be very useful. Mr Delattre replied that all the recent translations of safety standards (i.e. other than Safety Requirements, which are always translated into all official languages for the Board of Governors) had only been made possible through extra-budgetary funding from Spain and Russia. Mr Caruso commented that the Secretariat would like to translate the Safety Glossary but would need to seek funding for this **[Annex III, Action 44.07]**.

Radon dose conversion factors

Mr González noted that any changes to the radon dose conversion factors would have major implications in practice, and this issue needed to be approached with caution.

Mr Dies Llovera agreed with this and noted that, like most European countries, Spain had already started work on a National Action Plan for radon in accordance with the EC BSS.

Statements on Fukushima by the UN Human Rights Special Rapporteur

Mr Jammal noted the media reports on the statements made by the UN Human Rights Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes. He commented that the content of these statements was contrary to the position of UNSCEAR and also inconsistent with the safety standards. Mr González agreed with Mr Jammal.

6. Use of IAEA safety standards in Member States

6.1 Brazil

Mr A. Gromann De Araujo Goes gave a presentation (available on the CSS website) on the Brazilian approach to the use of IAEA safety standards. He summarized the nuclear facilities in Brazil, and described the roles of the National Nuclear Eneregy Commission and the Directorate of Radiation Protection and Nuclear Safety. Mr Gromann De Araujo Goes then described the legal framework in Brazil and the national regulations established for facilities and activities in Brazil.

In the discussion that followed, Mr Gromann De Araujo Goes provided more information on the staffing of the regulatory body and the relationship between the different authorities in Brazil.

6.2 Canada

Mr Jammal gave a presentation (available on the CSS website) on the use of IAEA safety standards in Canada. He summarized the regulatory framework for safety and the Canadian Nuclear Safety Commission and its support for the IAEA safety standards program. Mr Jammal also described the regulatory documents that reference IAEA safety standards, the CSA National Consensus Standards, and discussed the current challenges.

In the discussion that followed, Mr Jammal provided more information on the use of SSR-6 (Rev. 1) in relation to SCO-III, the application of Canadian regulations to existing facilities, the approach to regulations and guidance, and ensuring the alignment of different regulations and standards.

6.3 Germany

Mr Elsner gave a presentation (available on the CSS website) on the legal and regulatory framework for safety in Germany. He summarized the federal and regional structure of the regulatory body, the distribution of regulated facilities and current regulatory activities. Mr Elsner also described recent or foreseen changes in the regulatory framework and current and future challenges.

In the discussion that followed, Mr Elsner provided more information on the extensive programme of decommissioning NPPs in Germany and the associated plans for the retention of knowledge, expertise and skills, and the process for developing a culture for safety in the regulatory body.

6.4 Slovakia

Ms M. Žiaková gave a presentation (available on the CSS website) on the Slovakian legal and regulatory framework for safety, and on the application of IAEA safety standards within this framework. Ms Žiaková summarized the nuclear facilities and activities in Slovakia and the structure of the legal and regulatory framework, including the regulatory body and existing regulations and legal Acts. She also decribed the approach to transposing safety standards and other IAEA publications into national documents. Ms Žiaková also described the application of the safety standards during periodic safety reviews and provided feedback on the use of IAEA peer review services.

7. Information on the activities of the OECD Nuclear Energy Agency

Mr N. Muroya presented a summary (available on the CSS web site) of recent NEA activities in relation to the following areas:

- Nuclear regulation
- Nuclear safety research
- Multinational design evaluation programme (MDEP)
- Human aspects of nuclear safety
- Radioactive waste management
- Nuclear decommissioning and legacy management
- Radiological protection and public health.

Mr Muroya concluded by indicating that OECD-NEA was hoping to increase its collaboration with IAEA on issues relating to nuclear safety. In the discussion that followed, Mr Vinhas (AdSec) commented that NEA had a very busy programme of work. Mr Muroya agreed, noting that the programme included approximately 200 meetings a year.

8. Miscellaneous. Report of the meeting, Date of the next meeting

Ms Alm-Lytz and Mr Jun Yu volunteered to provide presentations at the 45th CSS meeting on the use of the IAEA safety standards in Finland and China, respectively.

Mr Delattre indicated that a draft list of actions resulting from the 44th CSS meeting would be provided for comment to the CSS members **[Annex III, Action 44.08]** and that the draft report of the 44th CSS meeting would be posted on the CSS web site for comment **[Annex III, Action 43.09]**. Mr Delattre informed the Commission that all presentations made at the 44th CSS meeting would be posted on the CSS web site **[Annex III, Action 43.10]**.

Mr Delattre informed the Commission that the dates for the next meeting are **8–10 April 2019.** The dates of other relevant meetings in 2019 are shown in the table below.

CSS 45	9–10 April 2019	**CSS 46**	Week 16–20 December 2019
EPReSC 8	25–28 June 2019	**EPReSC 9**	3–5 December 2019
NSGC 15	1–4 July 2019	**NSGC 16**	18–21 November 2019
NUSSC 47	24–28 June 2019	**NUSSC 48**	25–29 November 2019
RASSC 46	24–28 June 2019	**RASSC 47**	18–22 November 2019
TRANSSC 38	17-21 June 2019	**TRANSSC 39**	28 October – 1 November 2019
WASSC 47	17–21 June 2019	**WASSC 48**	28 October – 1 November 2019

ANNEX I

PARTICIPATION AT THE 44th CSS MEETING

The Commission

A. J. González, Argentina

C.-M. Larsson, Australia (sent apologies – unable to attend; represented by J. Powell)

A. Gromann De Araujo Goes, Brazil

R. Jammal, Canada

Y. Jun, China

D. Drábová (Chair), Czech Republic

M. R. M. Ezz El-Din, Egypt

P. Tiippana, Finland (sent apologies – unable to attend; represented by K. Alm-Lytz)

A.-C. Rigail, France

T. Elsner, Germany

S. A. Bhardwaj, India

M. Markovits, Israel

M. Sakurada, Japan

J. S. Uhm, Republic of Korea (sent apologies – unable to attend; represented by S. Choi)

H. Mohd Ali, Malaysia (sent apologies – unable to attend)

M. Z. A. Baig, Pakistan (sent apologies – unable to attend)

A. Ferapontov, Russian Federation (sent apologies–unable to attend; represented by R. Sharafutdinov)

M. Žiaková, Slovakia

C. O. Phillips, South Africa (sent apologies – unable to attend; represented by P. Bester)

J. Dies Llovera, Spain

I. Lund, Sweden

H. Wanner, Switzerland

A. Hart, United Kingdom

F. Brown, United States of America (sent apologies – unable to attend; represented by R. Lewis)

Observers

L. Vinhas, AdSec

M. Garribba, EC (sent apologies – unable to attend; represented by V. Ranguelova)

C. Cousins, ICRP (sent apologies – unable to attend)

R. Meserve, INSAG (sent apologies – unable to attend)

N. Muroya, OECD-NEA

Chairpersons of the Review Committees

EPReSC: A. Heinrich

NSGC: S. Bayer (sent apologies – unable to attend; represented by J. Facetti)

NUSSC: P. Webster

RASSC: R. Bly

TRANSSC: P. J. Hinrichsen

WASSC: M. Golshan

Representatives and associated experts

M. Aparicio Peña, I. Forest, K. Goto, D. Konoplev, T. Nakajima, H. Nilsson, J. Z. Reiriz, Y. Vinogradova, Y. S. Yoon.

IAEA Staff Members

J.-C. Lentijo, Deputy Director General, Department of Nuclear Safety and Security

E. Buglova, Head, Incident and Emergency Centre (IEC)

G. Caruso, Director, Nuclear Safety Office of Coordination (NSOC)

P. Johnston, Director, Division of Radiation, Transport and Waste Safety (NSRW)

R.A.A. Raja Adnan, Director, Division of Nuclear Security (NSNS)

G. Rzentkowski, Director, Division of Nuclear Installation Safety (NSNI)

L. Guo, M. Khaliq, D. Liu, S. Mallick, H. Mansoux, S. Purvis, D. Senior, A. Shokr, C. Spitzer, P. Tarren, J. Tierney.

K. Asfaw, O. Coman, A. Duchac, O. German, T. Karseka-Yanev, T. Kobetz, V. Ljubenov, E. Reber, P. Sales Barbosa, P. Shaw, C. Toth, A. Ulses, P. Villalibre.

Coordinators of review Committees and of the Commission on Safety Standards

R. de la Vega, Incident and Emergency Centre (IEC), EPReSC

M. Svab, Regulatory Activities Section (NSNI), NUSSC

T. Colgan, Radiation Safety and Monitoring Section (NSRW), RASSC

S. Whittingham, Regulatory Infrastructure and Transport Safety Section (NSRW), TRANSSC

S. Geupel, Waste and Environmental Safety Section (NSRW), WASSC

I. Barraclough, Safety Standards and Security Guidance Development Section (NSOC), NSGC

D. Delattre, Scientific Secretary of the CSS, (NSOC) Safety Standards and Security Guidance Development Section

ANNEX II

AGENDA OF THE 44th MEETING OF THE COMMISSION ON SAFETY STANDARDS: 14–16 November 2018

1. Opening Session

1.1. Opening of the Meeting *DDG J.-C. Lentijo*

1.2. Introductions of new members, Adoption of the Agenda, Adoption of the 43rd CSS meeting report

1.3. Administrative arrangements for the meeting, Status on the CSS interests for the 6th term, Status of the endorsed Standards and Response to Actions from the 43rd meeting and to remaining actions from previous meetings.

2. Reports from the Safety Standards Committees and the Nuclear Security Guidance Committee

2.1. Emergency Preparedness and Response Standards Committee (two meetings); *A. Heinrich, Chairperson/R. de La Vega, Scientific Secretary*

2.2. Nuclear Safety Standards Committee; *P. Webster, Chairperson/M. Svab, Scientific Secretary*

2.3. Radiation Safety Standards Committee; *R. Bly, Chairperson/T. Colgan, Scientific Secretary*

2.4. Transport Safety Standards Committee; *P. Hinrichsen, Chairperson/S. Whittingham, Scientific Secretary*

2.5. Waste Safety Standards Committee; *M. Golshan, Chairperson/S. Geupel, Scientific Secretary*

2.6. Information on the meeting of the Nuclear Security Guidance Committee; *J. Facetti, Vice-chairperson/ I. Barraclough, Scientific Secretary*

2.7. Summary of the meeting of the Chairs held on 13 November 2018 before the CSS meeting.

3. Approval of draft publications and DPPs

3.01. Draft Safety Requirements DS484 on Site Evaluation for Nuclear Installations, *O. Coman*

3.02. Draft Safety Guide DS403 on Decommissioning of Medical, Industrial and Research Facilities, *V. Ljubenov*

3.03. Draft Safety Guide DS471 on Radiation Safety of X-ray Generators and other Radiation Sources Used for Inspection Purposes and for Non-Medical Human Imaging, *O. German*

3.04. Draft Safety Guide DS481 on Design of the Reactor Coolant System and Associated Systems in Nuclear Power Plants, *C. Toth*

3.05. Draft Safety Guide DS482 on Design of the Reactor Containment and Associated Systems for Nuclear Power Plants, *C. Toth*

3.06. Draft Safety Guide DS483 on Accident Management Programme for Nuclear Power Plants, *A. Ulses*

3.07 Draft Safety Guide DS486 on Establishing the Safety Infrastructure for a Nuclear Power Programme, *T. Kobetz*

3.08. Draft Safety Guide DS488 on Design of the Reactor Core for Nuclear Power Plants, *C. Toth*

3.09. Draft Safety Guide DS491 on Deterministic Safety Analysis for Nuclear Power Plants, *P. Villalibre*

3.10. Draft Safety Guide DS492 on Human Factors Engineering in the Design of Nuclear Power

Plants, *A. Duchac*

3.11. Draft DPP DS514 for a Safety Guide on Equipment Qualification of Items Important to Safety in Nuclear Installations, *A. Duchac*

3.12 Draft DPP DS515 for a Safety Guide on Compliance Assurance for the Safe Transport of Radioactive Material, *E. Reber*

4. DPPs and draft Nuclear Security Series publications for information

None submitted.

5. Policy discussion

5.1. Report for the Safety Standards Committees on the 2012 UNSCEAR reports implications and the CSS action 42.03 to review the determine which safety standards currently under development and already published could be strengthened in this respect.

5.2. Progress report on the preparation of a Safety Report to address the action 43.03 from the 43rd CSS meeting and specifically to provide practical guidance, including case studies, on:

- How to apply the concept of retrospective attribution of radiation health effects;
- The prospective inference of health risks from radiation exposures;
- The prediction of notional health effects for comparative purposes (e.g. the use of collective dose).

5.3 Progress reports from the Committees on the action 43.04 from the 43rd CSS meeting related to the review of the Safety Fundamentals SF-1.

5.4 Any other business:

- Interfaces between safety and security
- Translation of safety standards
- Radon dose conversion factors
- Statements on Fukushima by the UN Human Rights Special Rapporteur

6. Use of IAEA safety standards in Member States

6.1 Brazil

6.2 Canada

6.3 Germany

6.4 Slovakia

7. Information on activities of the OECD Nuclear Energy Agency

8. Miscellaneous. Report of the meeting. Dates of the next meetings (Week from 8 to 12 April 2019 and week from 16 to 20 December 2019)

This will also include a call for candidates for making a presentation at the next meeting on the use of safety standards in Member States.

ANNEX III

ACTIONS ARISING FROM THE 44th MEETING OF THE COMMISSION

44.01 The final report of the 43rd CSS meeting to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary]. Done**

44.02 Discussion documents should be prepared in advance -early enough to allow Member states to review these framework documents- of the consultants' meeting in March 2019 to prepare a DPP for the Safety Report addressing issues airing from the 2012 UNSCEAR report (see Action 43.03). This should include proposals on the purpose, scope, target audience and possible contents of the Safety Report and be circulated to the CSS. **[Action: Secretariat, CSS Scientific Secretary, CSS].**

44.03 The MTCD edited versions of the draft safety guides DS403, DS471, DS481, DS482, DS486, DS488, DS491 and DS492 to be posted on the CSS web page when available. The CSS members to be alerted by email for two weeks a silence procedure with the objective of confirming the CSS endorsement of these drafts. **[Action: Secretariat, CSS]**.

44.04 The NSGC to be consulted on possible participation at the consultants' meeting referred to in action 44.02 above **[Action: Secretariat, NSGC Scientific Secretary]**.

44.05 The current reviews of SF-1 being undertaken by the SSCs should continue and further progress reports should be presented at the 45th CSS meeting. **[Action: SSCs, Secretariat, CSS Scientific Secretary].**

44.06 Arrangements should be made for draft standards that have reached the MTCD editing stage to be checked for potential issues that could arise from subsequent translation of the text into official languages. **[Action: Secretariat]**.

44.07 The Safety Glossary is an essential supporting publication for the Safety Requirements publications and other safety standards. Funds should be sought for the translation of the 2018 Edition of the Safety Glossary into all official languages. **[Action: Secretariat].**

44.08 A draft list of actions resulting from the 44th CSS meeting to be provided to the CSS members for comments. **[Action: Secretariat, CSS Scientific Secretary]. Done (this list).**

44.09 The draft report of the 44th CSS meeting to be posted for comments. **[Action: Secretariat, CSS Scientific Secretary].**

44.10 The presentations made at the 44th CSS meeting to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary]. Done.**

ANNEX IV

STATUS OF ACTIONS FROM THE 43rd MEETING OF THE COMMISSION

43.01 The final report of the 42nd CSS meeting to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary]. Done**

43.02 The end of term reports for the safety standards review committees and for NSGC to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary]. Done**

43.03 The CSS recommends that a Safety Report be prepared — by experts from each of the five SSCs and with the involvement of NSGC and the Secretaries of ICRP and UNSCEAR — to address Recommendation 2 from the consultants' meeting report (see Annex VI) and specifically to provide practical guidance, including case studies, on:[2]

- How to apply the concept of retrospective attribution of radiation health effects;
- The prospective inference of health risks from radiation exposures;
- The prediction of notional health effects for comparative purposes (e.g. the use of collective dose).

The committees should identify experts at the June/July SSC and NSGC meetings to participate in the drafting of the Safety Report starting in Quarter 4 of 2018. **[Action: SSCs and NSGC, Secretariat]. See Agenda Item 5.2: SSCs have identified participants and a meeting to draft the DPP for the Safety Report is scheduled for March 2019.**

43.04 The CSS recommends that the SSCs undertake a review of SF-1 at the June/July 2018 meetings and report back at the 44th CSS meeting in November 2018. Depending on the outcome of these reviews, the Secretariat could make arrangements for the development and approval of a draft DPP in 2019 for the revision of SF-1. Work on the revision could then start in 2020. **[Action: SSCs, Secretariat, CSS Scientific Secretary, CSS]. See Agenda Item 5.3: Action to be completed at the 2018 SSC meetings.**

43.05 A draft list of actions resulting from the 43rd CSS meeting to be provided to the CSS members for comments. **[Action: Secretariat, CSS Scientific Secretary]. Done (this list).**

43.06 The draft report of the 43rd CSS meeting to be posted for comments. **[Action: Secretariat, CSS Scientific Secretary]. Done.**

43.07 The presentations made at the 43rd CSS meeting to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary]. Done.**

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[2] It was agreed to use the term concept for the three elements, i.e. guidance on "how to apply the concepts of:

- Retrospective attribution of radiation health effects;
- Prospective inference of health risks from radiation exposures;
- Prediction of notional health effects for comparative purposes (e.g. the use of collective dose)."