21 April 2017

Commission on Safety Standards

Fortieth Meeting

8-10 November 2016

IAEA Headquarters, Vienna

Report of the Meeting

Overview of main results of the meeting

A. The following draft Safety Standards were endorsed for publication:

- DS432: Draft Safety Guide on Radiation Protection of the Public and the Environment
- DS427: Draft Safety Guide on Prospective Radiological Environmental Impact Assessment for Facilities and Activities
- DS442: Draft Safety Guide on Regulatory Control of Radioactive Discharges to the Environment
- DS452: Draft Safety Guide on Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle Facilities

B. The following DPPs were approved:

- DS469: Draft Safety Guide on Preparedness and Response for an Emergency during the Transport of Radioactive Material
- DS496: revision of the Safety Guide SSG-26 on Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material
- DS497: revision of eight closely interrelated Safety Guides supporting the Safety Requirements SSR-2/2 (Rev. 1): NS-G-2.2 to 2.8 and NS-G-2.14

C. The CSS agreed its interests for its sixth term (see Annex X).

D. A Working Group of CSS members was established to consider the implications of the UNSCEAR report “Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks” for the development of IAEA safety standards.

1. Opening Session

1.1 Opening of the Meeting

Mr Gustavo Caruso, Acting Deputy Director General and Head of the Department of Nuclear Safety and Security, opened the 40th meeting of the Commission on Safety Standards and welcomed all members.

He noted that this was an important meeting, celebrating the 40th meeting and the 20th anniversary of the Commission on Safety Standards, and indicated several of the important items on the agenda. One key item would be to finalize the set of recommendations for this term in order to have a basis for the work of the next three years. Another important item was the discussion on the draft policy paper on Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks. There would also be a special presentation on a recent INSAG report on Institutional Strength in Depth (ISiD) and the INSAG letter to the Director General recommending the review of existing standards and peer review arrangements to identify any gaps in the application of the ISiD model.

He also highlighted several further elements: Three interrelated Safety Guides DS427, DS432 and DS442 were now ready for endorsement at this meeting. There would be an update on the significant progress made in the establishment of the NSS-OUI, whereby nearly 100 publications are now available in full text in the system, and where the centralized feedback collection mechanism is now fully operational. And now the NSS-OUI content management system would be applied to the DPP DS497, which was proposed for approval at this meeting and would lead to the revision of eight closely interrelated Safety Guides supporting the Safety Requirements SSR-2/2 (Rev. 1).

Finally, he noted some upcoming important events:

- The International Conference on the Safety of Radioactive Waste Management to be held from 21 to 25 November 2016 in Vienna.
- The International Conference on Nuclear Security: Commitments and Actions to be held from 5 to 9 December 2016 in Vienna.
- The 7th Review Meeting of the Contracting Parties to the Convention on Nuclear Safety to be held from 27 March to 7 April 2017, inVienna.

Mr Caruso concluded by wishing all participants a very productive session.

1.2 Introductions, Adoption of the Agenda, Adoption of the 39th CSS meeting report

Ms D. Drábová, Chair of the Commission, welcomed all participants. Mr I. Lund acted as Chair of the Commission for part of the meeting, in Ms Drábová's absence.

A complete list of participants is included as Annex I.

The provisional agenda was distributed. Mr Delattre indicated that item 7 of the provisional agenda, namely a presentation on the activities of OECD/NEA, would be postponed to the 41st CSS meeting, and item 4.2 of the provisional agenda, namely a presentation for information on Implementing Guide NST020 on Sustaining a Nuclear Security Regime would be removed from the agenda, as NST020 had in fact already been presented for information at the 39th CSS meeting.

Mr P. Webster referred to Action 36.03 on a proposed holistic review of the collection of Safety Guides, still open from the 36th CSS meeting, and set out in Annex IX of the 39th meeting report; he proposed that this topic be addressed under 'other business' at this 40th meeting.

The revised agenda was approved and is provided in Annex II.

Ms Drábová informed the Commission that the draft report of the 39th CSS meeting had been made available. No comments had been received in advance of the meeting. The report of the 39th CSS meeting was approved and would be posted on the CSS website [Annex III, Action 40.01].

Mr A. González referred to certain unresolved challenges, raised at the 39th CSS meeting and correctly reflected in the minutes. The most important of these matters was whether publications of

the Nuclear Security Series are standards of the Agency and so issued under Article III of the Statute, or not. He requested that this matter and other such matters be included on the agenda for this and future CSS meetings.

1.3 Administrative arrangements for the meeting, status of the main topics for the 5th CSS term, status of endorsed standards, response to actions from the 39th Meeting and to remaining actions from previous meetings

Mr D. Delattre informed the Commission of administrative arrangements for the meeting. He noted that all material had been made available more than two months in advance of the meeting for effective review by the Commission. He also indicated that, as requested by the Commission, his detailed presentation on the status report had been uploaded to the CSS web site in advance of the meeting.

Mr Delattre presented the status of the few outstanding main topics for the 4th CSS term and the main topics for the 5th CSS term (see Annexes IV and V) and the status of the roadmap for the long term structure of the General Safety Requirements and the Specific Safety Requirements.

Mr Delattre also presented the status of the endorsed safety standards. He informed the Commission that five safety standards had been published since the last CSS meeting (SSG-39, SSG-40, SSG-41, GSR Part 2 and SSR-3) and noted that seven further safety standards, endorsed by the Commission, were being published. Lists of currently valid, published standards, projects and draft standards under preparation/revision and drafts of the Nuclear Security Series that are interface documents are included as Annexes VI, VII and VIII, respectively[1].

Mr Delattre also provided information on the response to the actions from the 39th CSS meeting (see Annex IX).

Mr Webster raised the matter of DS483, which currently remains at Step 10. This was one of four Safety Guides identified by NUSSC as a priority. He had hoped that greater resources would be devoted to this work. Mr Delattre noted that DS483 had now been reviewed internally by the Standards Specialist, and it was under discussion as to whether it might be submitted to NUSSC for approval by electronic means, so as to enable it to progress to Step 11 before the first NUSSC meeting of 2017.

2. Reports from the Safety Standards Committees meetings and information on the meetings of the Nuclear Security Guidance Committee

2.1 Emergency Preparedness and Response Standards Committee (EPReSC)

Ms A. Heinrich, EPReSC Chair, reported on the second meeting of EPReSC, whose membership consisted of representatives of 63 Member States and 10 international organizations as observers. Operating guidelines, complementing the Terms of Reference, had been approved. DS474 on Arrangements for the Termination of a Nuclear or Radiological Emergency had been approved for submission to Member States for comment, and the DPP for DS469, the revision of Safety Guide TS-G-1.2, on Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material, had been approved for submission to CSS. One draft Safety Requirements publication (DS495) and one draft Safety Guide (DS491) had also been approved for submission to Member States for comment, and the DPP for DS497 had also been approved. A draft Implementing Guide NST004, however, had not been cleared, and, following some modification in the draft, it was anticipated that NST004 would be resubmitted to the next EPReSC meeting. EPReSC had also addressed a number of other strategic issues and relevant aspects for EPReSC operation. Ms Heinrich's presentation is available on the CSS web site.

Mr González and Mr G. Tracy reflected on the importance and relevance of EPReSC, in particular in ensuring that the response to emergencies resulting from a security event would be handled within the

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

same system as the response to emergencies resulting from a safety event. Mr G. Williams noted that Australia shared the same concerns, and hoped for more tangible steps in enhancing the interface between safety and security.

Mr P. Tiippana, Mr P.F. Heilbron and Mr M. Hirano noted an underlying confusion of individuals when it is sometimes implied that 'safety' in normal situations is different from 'safety' in an emergency, and recognized that psychological, behavioural and communication issues, as well as technical issues, come into play. Mr González further noted that the challenge encompasses both perception and terminology: People naturally wanted more protection in an emergency, whereas often the 'limits' were raised in an emergency, rather than reduced. He hoped that EPReSC could assist in this regard. He also noted again that many useful publications of the EPR Series address precisely this issue.

Ms E. Buglova clarified that EPR Series publications are at the same level as TECDOCs, and contain much detail, including calculations and templates. Through such publications, then, feedback from users is sought on the application of such detailed guidance, and the content of EPR Series publications can then be included in safety standards later. This approach was being taken in relation to the draft Safety Guide GSG-2. Mr Delattre noted that many of the EPR Series publications are now linked in NSS-OUI to the relevant parts of the standards on emergency preparedness and response.

2.2 Nuclear Safety Standards Committee (NUSSC)

Mr F. Feron, NUSSC Chair, reported on the 41st NUSSC meeting. NUSSC had approved five standards for submission to Member States for comment (DS495, DS474, DS482, DS488, DS491) and one DPP (DS497), which would revise eight Safety Guides in parallel. NUSSC had cleared drafts of the Nuclear Security Series (NST009 and NST041) and one Nuclear Security Series DPP (NST058). NUSSC had also discussed a recently issued TECDOC on Considerations on the Application of the IAEA Safety Requirements for Design of Nuclear Power Plants, the possibilities of preparing a Safety Guide to address cross cutting aspects (e.g. demonstration of practical elimination of large/early realeases, independence of safety provisions for DiD, …), the definitions of the levels of defence in depth, the development of a TECDOC on Development and Application of a Framework of Safety Goals for Nuclear Installations, and an INPRO collaborative project on small and medium sized reactors, among other matters. Mr Feron's presentation is available on the CSS web site.

Mr Williams and Mr P. Hinrichsen noted that INPRO publications frequently touch on subjects relevant to the safety standards, often in a manner not consistent with the safety framework. Mr Delattre reported that an internal coordination process was indeed applied to such publications, which sometimes involved the review of such drafts by the Safety Standards Committees and the CSS, but that sometimes the outcome of this coordination process was unsatisfactory. Mr Williams and Mr González requested that a more formal consultation process be established. Mr Tracy and Mr D. Senior noted there was also a need for regulators and for safety standards to address innovative reactors; although the standards provide generic requirements and recommendations, they should be assessed from time to time against new technologies. Mr G. Rzentkowski informed the CSS that a draft TECDOC on safety of innovative reactors was in development.

Mr Williams also drew attention to DS497, which would revise almost 500 pages of existing text, and queried the extent to which the NSS-OUI tool would facilitate this process. Mr Delattre noted that the revision would not involve all 500 pages of text; rather it would be a focused revision process. The extent of the work would be dictated by the number of topics to be revised. Mr González noted that only the Safety Requirements had been revised since the Fukushima Daiichi accident, and that it was urgent that the Safety Guides be revised too and that consistency be ensured.

Mr Lund and Mr H. Wanner queried the impact on NUSSC's work due to the different IAEA and NEA definitions of the levels of defence in depth. Mr Feron presented a table outlining commonalities and differences, and suggested that the difficulties could be avoided by focusing instead on essential design means, rather than on objectives and on essential operating means. Mr Delattre noted that the

difference was to a certain extent artificial, and also that the standards are not structured in a manner that necessitates strict application of the definitions of defence in depth, except in presenting the levels as an overarching concept.

2.3 Radiation Safety Standards Committee (RASSC)

Mr G. Massera, RASSC Chair, provided a presentation on the 40th RASSC meeting, which had been held jointly with WASSC. RASSC had approved three standards for submission to the CSS (DS432, DS427 and DS442), four standards for submission to Member States for comment (DS495, DS474 DS459 and DS491) and two DPPs (DS497 and DS469). RASSC had also cleared drafts and DPPs of the Nuclear Security Series (NST009, NST041, NST004 and NST011). Discussions had also been held on the proposed revision of RS-G-1.7, which would be revised as two separate Safety Guides. It was anticipated that DPPs for these two Safety Guides would be presented at the November 2016 SSC meetings. RASSC had also discussed a proposal to develop a Safety Report on living in contaminated environments, the ICRP dose conversion factors for radon and challenges in regulating NORM industries. Mr Massera's presentation is available on the CSS web site.

With regard to the proposed revision of RS-G-1.7, Mr Massera noted that aspects of exclusion would be included in the new Safety Guides. Mr González considered that the term 'clearance' was unclear, particularly its translation into other languages. He further requested that the Guides be combined to a single Safety Guide at the end of the process, even if they are initially developed separately for practical purposes. Mr Heilbron requested that TECDOC-1679 be taken into account as a valuable resource. He also noted that the upper limit of activity concentrations (1Bq/g) for exemption is set out in a number of different standards, including GSR Part 3 and the Transport Regulations SSR-6; Mr Hinrichsen requested that TRANSSC be involved in any such discussions.

In relation to radon and the related dose conversion coefficients, Mr González and Mr Lund urged the Agency not to alter the existing coefficients in the standards before an UNSCEAR report on the matter is issued.

2.4 Transport Safety Standards Committee (TRANSSC)

Mr P. Hinrichsen, Chair of TRANSSC, reported on the 32nd TRANSSC meeting. TRANSSC had approved draft standards DS495, DS469 and DS493, and a DPP DS496. Mr Hinrichsen also reported on planned work for the 33rd TRANSSC meeting: consideration of the need to revise TS-G-1.3, TS-G-1.4 and TS-G-1.5, a thematic reorganization of the content of the Transport Regulations according to UN number, updating of the 'technical basis document' now that SSR-6 has been published, and a discussion of the A1 and A2 values. Mr Hinrichsen's presentation is available on the CSS web site.

Mr Heilbron also recalled that the Agency had in the past maintained a list of valid package certificates, which had been very useful. Mr Whittingham noted that such a register was very difficult to maintain up to date, and it relied on the commitment of Member States. However, he would propose to TRANSSC that such a register be re-established. He also reported that it was anticipated that the technical basis document would be made available electronically. Mr Delattre confirmed that the information in the technical basis document might be included in NSS-OUI for knowledge management purposes, and that NSS-OUI could also be used to support the thematic reorganization of the Transport Regulations in accordance with UN numbers.

Mr González queried the proposal to revise the A1 and A2 values, which were well accepted values. Mr Whittingham noted that the proposal was not to change the values, but rather to develop a strong justification for the existing values.

2.5 Waste Safety Standards Committee (WASSC)

Mr G. Williams, WASSC Chair, provided a report on the 41st WASSCmeeting, which had been held jointly with RASSC. WASSC had approved four draft standards (DS459, DS495, DS474, DS491) for submission to Member States for comment and one DPP (DS497). WASSC had looked again at DS432, DS427 and DS442, following technical editing, and had made some more small changes to

align the text with the ICRP recommendations on protection of the environment. WASSC had also cleared two draft Nuclear Security Series publications (NST009 and NST041). WASSC had been provided with an update on the development of DS468, and discussed other matters, including an INPRO publication on waste management, as well as other topical matters discussed together with RASSC. Mr Williams' presentation is available on the CSS web site.

Mr Phillips reported on the longstanding experience in South Africa in regulating NORM and radon exposures, and Mr Williams reassured him that South Africa's knowledge would be taken into account in the development of DS459. Mr González and Mr Phillips indicated that it would be helpful to collate the extensive work on NORM found in many places in the Agency, as this would assist in applying the standards.

Mr Senior suggested that the process of revising the activity exemption values could be started now, owing to the long lead time in effecting any such changes. No decision was taken but there was strong resistance to revising the activity exemption values; it was also noted that any changes would necessitate the development of good guidance on the application of a graded approach.

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

Mr B. Dal, Chair of NSGC, reported on the seventh NSGC meeting, and noted that NST004, NST009 and NST041 had been approved for publication. However, NST004 had not been cleared by EPReSC, and, following further work on the text and resubmission to EPReSC, it would be considered whether re-approval was needed by NSGC. NST011, NST027 and NST042 had been approved for submission to Member States for comment. DPPs for NST058 and NST059 had also been approved. Regarding interface documents, several draft standards and DPPs for standards had also been cleared. NSGC had also discussed proposed recommendations on computer security, the CSS priorities for the 6th term, and the Committee structure. Mr Dal's presentation is available on the CSS web site.

Mr Williams welcomed the next possible opportunity to develop a joint draft covering both safety and security, which would be useful for users, and Mr Dal indicated NSGC's full support for such an endeavour.

Mr González requested a clear decision, from the Board of Governors, on whether the Nuclear Security Series publications are issued under Article III of the Statute. He suggested that the Chair of the CSS could communicate the concerns of the CSS in this regard to the Director General.

2.7 Summary of the meeting of the Chairs held on 7 November 2016 before the CSS meeting

The meeting of the seven Chairs of the Committees and the Commission addressed the following main topics:

- Coordination of the presentations from the Committee Chairs to the CSS;
- Evolution of the processes for technical editorial review, submission to the Publications Committee and editing in MTCD;
- Changes made to SSR-3 after CSS approval;
- Status and use of the NSS-OUI IT Platform.

Mr Delattre also presented a slide setting out the progress on the review of Safety Guides following the Fukushima Daiichi accident; the slide is available on the CSS web site.

Mr Webster requested that NUSSC's priorities be firmly reinstated, so that the limited resources available in the Agency and in Member States could be devoted to these and not spread over a large number of drafts in progress. He requested that the safety standards programme be managed as a whole and not at the level of individual drafts.

3. Approval of draft publications and DPPs

3.1 Draft Safety Guide DS432 Radiation Protection of the Public and Protection of the Environment

Mr T. Boal presented the draft Safety Guide, and outlined its structure and objectives, and the process by which it was developed. Comments had been provided by Germany, India and Japan, and Mr Boal explained how it was proposed that these comments be handled. In particular, it had been agreed to change the title of DS432 to *Radiation Protection of the Public and the Environment*. Mr Boal's presentation is available on the CSS web site.

Mr Massera indicated RASSC's support for the draft.

Mr González requested that a reference be included in paragraph 4.1 to the objectives of the United Nations in respect of protection of the environment.

Mr. Hirano queried the meaning of 'if considered necessary' in Para 4.8 regarding the effort to assess radiological environmental impact including protection of flora and fauna. Mr. T. Boal clarified it means upon discretion of each member country.

Mr Shukla queried the logic of specifying the lower level for a dose constraint to be 0.1mSv rather than 0.01mSv, which is the level for exemption, and Mr Heilbron reinforced the need for consistency among the standards. Mr González proposed as a solution that the relevant sentence in paragraph 3.39 state: "On the other hand, the value for the dose constraint should be higher than *the exemption level established by the regulatory body*."

The Commission endorsed the draft for publication, subject to the above changes.

3.2 Draft Safety Guide DS427 Prospective Radiological Environmental Impact Assessment for Facilities and Activities

Mr D. Telleria presented the draft Safety Guide and provided an overview of the objective, scope, content and status of the draft. One comment had been received from India on para. 5.28 and Mr Telleria proposed how this comment could be resolved. Mr Telleria and Ms Heinrich suggested some further minor changes to para. 5.28 to clarify its meaning. Mr Telleria's presentation is available on the CSS web site.

Mr Williams indicated WASSC's support for the draft, and its satisfaction that the three related draft Safety Guides were consistent and well aligned with ICRP recommendations on the environment. Mr Massera concurred and indicated RASSC's strong support for the draft.

In response to a query from Mr Heilbron, Mr Telleria confirmed that the guidance in DS427 covered exposure scenarios such as consumption of fish and drinking water.

Mr González requested that in the future the three related Safety Guides be combined. He further requested that particular care be taken in the translation of the title of DS427.

The Commission endorsed the draft for publication, with the agreed changes to para. 5.28.

3.3 Draft Safety Guide DS442 Regulatory Control of Radioactive Discharges to the Environment

Mr D. Telleria presented the draft Safety Guide and provided an overview of the objective, scope, content and status of the draft. A comment had been provided by Germany on para. 5.24 and this comment had been accepted. Mr Telleria's presentation is available on the CSS web site.

Mr Williams indicated WASSC's support for the draft. Mr González also indicated his support for the draft, and indicated that it could be useful to retain a link to Safety Series No. 77 where certain

concepts, such as committed dose, had been well explained. He also requested that a reference to the London Convention be included in the annex.

The Commission endorsed the draft for publication, with the agreed change to para. 5.24, and the addition of references to Safety Series No. 77 and to the London Convention.

3.4 Draft Safety Guide DS452 Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle Facilities

Mr V. Ljubenov presented the draft Safety Guide, and set out the objective, scope, structure and status of the draft. Comments had been received from Germany, India and Israel, and Mr Ljubenov proposed how these comments could be resolved. Mr Ljubenov's presentation is available on the CSS web site.

Mr Lund, thanking Mr Ljubenov for his presentation, noted that it was sometimes difficult to deal with detailed technical comments at this late stage in the process. Mr Williams indicated WASSC's support for the draft and summarized the discussions at the WASSC meeting at which the draft had been approved.

Mr M. Markovits clarified that Israel had considered that one of the examples included in para. 8.13 (cutting with a diamond wire system) was rather too specific for a Safety Guide. Mr Delattre suggested that this example could be included as a footnote rather than as part of the main text.

Mr Heilbron drew attention to the concept of 'no action' as possibly being an acceptable option in certain circumstances, e.g. if one unit is shut down while another unit continues operating. Mr Ljubenov clarified that this particular situation is covered in the draft under the concept of 'deferred dismantling'.

Mr Shukla suggested that, in response to India's comment, a reference be included in bullet 8.2 of the Annex to the draft Safety Guide on occupational radiation protection, DS453.

The Commission endorsed the draft for publication, subject to the agreed changes.

3.5 Revised draft DPP DS469 for a Safety Guide on Preparedness and Response for an Emergency during the Transport of Radioactive Material

Mr M. Breitinger presented the draft DPP, and indicated the justification, objective, scope and production schedule for the draft Safety Guide. Comments had been received from Germany and the Republic of Korea and Mr Breitinger indicated that these had been accepted and would be included in a revised version of the DPP. Mr Breitinger's presentation is available on the CSS web site.

Ms Heinrich indicated EPReSC's support for development of the Safety Guide and noted the expected wide audience. Mr Williams queried on whether guidance on the post-emergency phase would be covered. Mr Breitinger indicated that this draft would build on the general guidance presented in DS474 on termination of an emergency and indicate how it applies specifically to transport.

Mr Delattre indicated that the draft, as a Specific Safety Guide, would eventually receive an SSG number, shortly before it is issued. Mr Zhao queried the various numbering systems, in particular with regard to the title and numbering of the Transport Regulations, SSR-6. Mr Delattre noted that SSR-6, uniquely, includes the year of the edition as part of its title.

Mr Delattre suggested that the draft could be developed within the NSS-OUI system, on the basis of the text of TS-G-1.2. Mr Breitinger noted that the text of TS-G-1.2 would be entirely restructured, and hoped that the editor of NSS-OUI would enable this.

Mr Breitinger also clarified that the draft applies to radioactive material, which, by definition, includes nuclear material.

The Commission approved the DPP.

3.6 Draft DPP DS496 for the revision of the Safety Guide SSG-26 on Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material

Ms N. Capadona presented the draft DPP, which was for a revision of the existing Safety Guide SSG-26, and would be a companion publication for the edition of the Transport Regulations that is currently under development. She described the background, justification, overview and schedule of production for the draft. No comments had been received from CSS members. Ms Capadona's presentation is available on the CSS web site.

Mr Hinrichsen indicated TRANSSC's support for development of the draft Safety Guide. Mr Delattre noted that it was expected that a revision of the Schedules accompanying the same edition of the Transport Regulations would also be developed.

The Commission approved the DPP.

3.7 Draft DPP DS497 for the revision of eight closely interrelated Safety Guides supporting the Safety Requirements SSR-2/2 (Rev. 1): NS-G-2.2 to 2.8 and NS-G-2.14

Mr Delattre presented the draft DPP on behalf of the Technical Officer, Ms V. Ranguelova. He outlined the need for a review of the various Safety Guides, showed how the various elements of all eight Safety Guides are related and set out the proposed two-step process for the revision. He also noted that the outcome might perhaps not be a single publication, but rather a Safety Guide in several volumes. At the request of NUSSC, an annex had been added to the DPP that indicated the specific parts of the Safety Guides that were most likely to be revised. He also summarized the comments that had been made by the Safety Standards Committees and noted that comments had been received from the CSS members from Germany, Japan and the Republic of Korea, all of which had been accepted. Ms Ranguelova's presentation is available on the CSS web site.

Mr Lund noted that in practice only Step A (revising the Safety Guides) could be approved at this point, and that further discussions would be necessary before Step B (optimizing the structure of the Safety Guides) could be embarked upon.

Mr Svab, on behalf of Mr Feron, set out NUSSC's position with regard to the DPP. NUSSC supported the DPP, in particular Step A. NUSSC had not discussed the two further suggested DPPs for Safety Guides on external and internal hazards and on monitoring and review of safety performance, and also had not discussed Step B. NUSSC had requested that it be kept informed of developments in this regard.

Mr Tracy also requested that more detail be provided to Member States on the schedule for the consultancy meetings for development of the draft.

The Commission approved Step A as set out in the DPP, and took note of the intention and discussions needed to proceed to Step B.

4. Draft Nuclear Security Series publications for information

4.1 Draft Implementing Guide NST009 Building Capacity for Nuclear Security

Ms N.F. Bakri presented the draft Implementing Guide, an interface document, for information. She outlined the purpose of the draft, its structure, the reference to other publications in the Nuclear Security Series and the process for and comments raised during its development. Ms Bakri's presentation is available on the CSS web site.

4.2 Draft Implementing Guide NST041 Preventive and Protective Measures against Insider Threats

Mr R. Larsen presented the draft Implementing Guide, an interface document for information. He outlined the objective and scope of the draft, which is a revision of Nuclear Security Series No. 8, with the scope expanded to address cyber-security and accounting and control. The revised draft had been developed on the basis of the most recent developments in the field. He also indicated how the interface between safety and security is addressed in the draft. Mr Larsen's presentation is available on the CSS web site.

4.3 Draft DPP for an Implementing Guide NST058 NSS Development, Use and Maintenance of Threat Assessment and Design Basis Threat

Mr I. Barraclough presented the draft DPP for an Implementing Guide for information, which is an interface document and a revision to Nuclear Security Series No. 10. He set out the objectives for the revision and the scope and proposed structure of the revision. One comment had been received from India, to the effect that a process should be included for immediate consideration of changes in both physical and cyber threats, and this comment had been accepted. Mr Barraclough's presentation is available on the CSS web site.

Mr Tracy drew attention to the term 'alternative threat statement'. Mr Barraclough noted that the term appeared in Nuclear Security Series No.14 on radioactive material and associated facilities, and indicated that such terminology would be clarified in NST058.

5. Policy discussion

5.1. Finalization of the recommendations for the 6th CSS term

Mr Caruso made a short presentation setting out the priorities for the 6th CSS term. The priorities had been proposed at the 38th CSS meeting and extensively discussed at the 39th CSS meeting. Mr Caruso's presentation is available on the CSS web site.

The members of the Commission discussed as a general issue the term 'priorities'. They requested that this list not be taken as a dogmatic instruction of what was to be done, as changing circumstances would necessarily lead to changes in priorities. Moreover, use of the term 'priorities' could give rise to confusion with the overall priorities of the Agency for nuclear safety, which are based on the needs of all Member States and influenced by peer review results, international legal instruments and major conferences and papers, and are presented and agreed at the Board of Governors; these recommendations of the CSS were necessarily more limited to the scope of the safety standards programme. The CSS suggested that the list rather be considered a flexible framework for the work of CSS, and considered that the list could be better described as 'interests' of the CSS for its sixth term.

Several members of the CSS noted that it was important that the CSS be proactive and forward-looking in terms of future technologies in nuclear power and in other applications, and its recommendations for the sixth term should give focus to that. In several Member States new nuclear power plants were under development for which specific international design standards are not yet in place. Mr Delattre suggested a two-step approach for such new technologies: first to identify which standards currently apply to new technologies, then to identify the remaining gaps and create new standards to fill those gaps.

Mr Webster recalled a matter still remaining from the fifth term of the CSS, namely an action relating to prioritization of the development of safety standards, and requested that a similar interest be retained in this list.

Each interest was discussed individually and some clarifications suggested[2], and the CSS's interests for the sixth term were approved [Annex III, Action 40.06]. The list of CSS interests of the sixth term is set out in Annex X.

5.2. CSS policy paper on the basis of the contribution from RASSC on the implications of the UNSCEAR report "Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks" for the development of IAEA safety standards

Mr González presented the policy paper. He noted that the UNSCEAR report provides a clear differentiation between (individual, deterministic) effects that can be tested by a pathologist and (collective, stochastic) effects that can be attested only by an epidemiologist. Individual effects were detected retrospectively, and were a real occurrence; risk, on the other hand, relied on judgement regarding probabilities rather than on real frequencies of occurrence. Mr González urged the Secretariat to consider this difference carefully, to determine how these conclusions would affect the preparation of future standards. He also emphasized that there was no contradiction between the UNSCEAR report and ICRP policy in this regard.

Mr Williams, expressing Australia's position on the policy paper, strongly urged the CSS to take note of the paper and to establish a working group to examine in detail its practical implications for the standards. He noted that the UNSCEAR report provides a strong basis for communication of safety, in particular in existing exposure situations.

Mr Lund and several other members of the CSS felt it would be premature to adopt the policy paper at present. They requested additional time to consult with experts in their States, and supported the formation of such a working group.

Mr Delattre suggested that it would also be possible to modify the 'generic text' that is set out at the beginning of every standard to include conclusions of the working group.

The CSS agreed to take note of the policy paper and establish a working group to consider the implications of the UNSCEAR paper, to be chaired by Ms Drábová. Volunteers would be requested from the CSS, and the Chairs of RASSC, EPReSC and WASSC, IAEA Secretariat as well as representatives from the Secretariats of ICRP and UNSCEAR, would be invited to participate [Annex III, Action 40.02]. The Chair of RASSC commented that he had worked on the paper and expected to see conclusion of discussion at the next CSS meeting.

5.3 Exchange with INSAG on the 20 July 2016 INSAG Chair letter to DG on Institutional Strength in Depth

Mr M. Weightman introduced the forthcoming INSAG report (INSAG-27) on institutional strength in depth. He noted that a robust nuclear safety system is essential to ensure that safety standards are applied in all circumstances and in all nuclear facilities. Such a system has to be built on the principles of 'institutional strength in depth', which has has three main, independent layers: industry, regulators and stakeholders, each with multiple sub-layers. The foundation is strong leadership and culture for nuclear safety and the interfaces between the layers are crucial. He also referred to the concept of humble leadership, whereby challenges are welcomed and a questioning attitude is engendered. He concluded by questioning whether the standards and the Agency's peer review services cover all of these aspects adequately. Mr. Weightman's presentation is available on the CSS web site.

There followed a broad discussion of the various layers and aspects of institutional strength in depth, and how each layer and sub-layer can be viewed. Mr Weightman strongly emphasised the important role of stakeholders, and the interaction between industry and stakeholders, as a key strength of a robust system. Various members of the CSS also described the challenges of maintaining independence in a cooperative environment, but noted that independence need not mean isolation.

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[2] For example that item 8 relates to existing exposure situations

The fact that different national cultures have different strengths and weaknesses was also raised, as well as the fact that a diversity of cultures, although it may seem impractical, can be an advantage from which one could identify common principles. Mr Weightman urged the CSS to welcome challenges and use them to enhance safety.

Mr Caruso noted that many concepts of this broad topic, which cuts across all areas of safety, are already expressed in the standards, although they may not be contained in one particular standard. The CSS requested the Secretariat to consider how the standards reflect the concept of institutional strength in depth as set out in the INSAG-27 report, and to provide a summary of this at the 41st CSS meeting [Annex III, Action 40.03].

5.4. Status of the NSS-OUI IT platform

Mr Delattre provided a brief presentation on the current status of the NSS-OUI system. He summarized the basic strategies and basic elements of the system, and indicated that almost all safety standards and nuclear security guidance publications were now within the system, and links were provided between related publications. He also set out the next steps, including importing the glossaries, and including links to informational publications and e-learning tools. He also presented a demonstration of the functions of the NSS-OUI system enabling users to browse, search by publication, and search by overarching requirement, and showed how the feedback system functions.[3] The feedback system will assist in revision of the standards, recording the comments that users have made and what they relate to. The presentation by Mr Delattre is available on the CSS web site.

Mr Lund welcomed the presentation, noted the progress made, and encouraged future progress. Mr González congratulated Mr Delattre on the progress made to date and encouraged next steps to include links to UNSCEAR reports and to superseded standards.

Mr Delattre expressed appreciation for the extrabudgetary funding received from the United States of America and Japan for this project, looked forward to future progress and encouraged CSS members to use the system [Annex III, Action 40.07].

5.5. Implications for the users of the safety standards of the copyright notice inserted in all published standards

Ms K. Asfaw provided a presentation on the implications for users of the standards of the copyright notice inserted in all published standards. She introduced the legal obligations of the Agency and indicated the position the Agency takes with respect to copyright: copyright is not used in order to protect its intellectual property for financial purposes, but rather to ensure first that the quality of publications is maintained, so that the Agency's reputation is protected, and second that the Agency has the required rights actually to be able to publish and distribute standards. The policy of the Agency with respect to granting permission for reproduction and translation of standards is generous, and permission can be sought simply by means of an email to sales.publications@iaea.org. Ms Asfaw's presentation is available on the CSS web site.

In the discussion that followed, Ms Asfaw clarified that, in the case of cosponsored publications, the IAEA, as publisher, holds copyright to the text. Cosponsoring organizations are welcome to promulgate the text to their Member States by separate means if they so wish, but are requested to include a reference to the original version, i.e. the IAEA publication. She also clarified that translations of standards into one of the Agency's official languages, if they are to be issued as an Agency publication, must be revised in-house in order to meet the necessary quality standards.

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[3] An 18 minutes video demonstration of key NSS-OUI capabilities is available at https://mediaex.iaea.org/Mediasite/Play/037660fd19534ae696704e442be0b83b1d

Mr Webster noted that he understood the need for the Agency to retain copyright over its publications, but hoped that it would be possible to simplify the procedure for Member States to receive permission to reproduce and translate Agency publications. Mr Delattre suggested that it might be possible to instigate a means by which permission granted for the reproduction of one standard would then equally hold for all subsequent revisions of that publication. He would investigate whether this or another approach could be used to simplify the means for receiving permission for reproducing or translating standards [Annex III, Action 40.04].

6. Use of IAEA Safety Standards in Member States

Ms Drábová provided a presentation on the use of standards in the Czech Republic, which is available on the CSS web site. Ms Drábová reviewed the development of the new Atomic Act, a reform of nuclear law started in 2010 with nine goals, adapting the law to IAEA safety standards, WENRA reference levels, ICRP 103 and lessons learned from Fukushima, stress tests and other situations. Only one part of the previous legislation remained valid: liability for nuclear damage. The Atomic Act had been adopted on 14 July 2016 and would enter into force on 1 January 2017. It was accompanied by amendments related to other Acts governing such areas as the construction code, mining law and medical law. It was framed by fields of interest: nuclear energy utilization, radiation protection, waste management, transport, radiation monitoring, emergency management, and security, There was a set of 21 government decrees and governmental orders complementing the Atomic Act and covering such things as radiation protection (including protection against radon exposure), nuclear safety, design and siting, as well as specific regulations on emergency management.

Mr Lachaume provided a presentation on the use of standards in France, which is available on the CSS web site. Mr Lachaume covered the basis for the regulation of nuclear activities, France's regulatory architecture, the Nuclear Security and Transparency Act of 13 June 2006 (TSN Act) and the general regulatory framework of nuclear activities. He noted the basis for regulation in international references, conventions and standards, including the IAEA standards, the European regulatory framework, including the Euratom Treaty and European Council Directives 2014/71 and 2010/70, and the national regulatory framework, including the 2006 TSN Act and the 2006 'Waste Act'. Radiation protection doctrine is based on UNSCEAR assessments, ICPR recommendations, and IAEA and other international and regional standards. In French regulatory architecture, responsibilities are distributed between the government and the ASN. He noted that the TSN Act reflects the IAEA standards, and, as a result of a recommendation from the IRRS mission in 2014, the ASN regulatory committee now takes into account updated IAEA standards.

Mr Wanner provided a presentation on the use of standards in Switzerland, which is available on the CSS web site. Mr Wanner covered the process by which the IAEA standards are incorporated into ENSI's regulatory framework, the results, areas for improvement and the current state of implementation, with identified gaps. ENSI guidelines are harmonized with the IAEA safety standards and WENRA safety reference levels. Explanatory reports for each guideline cover the implementation of WENRA safety reference levels in the Swiss legal framework. He also noted that ENSI follows the principles of the Vienna Declaration on Nuclear Safety, but indicated that no specific engineering upgrades had been undertaken specifically following the Vienna Declaration, and that guidelines on the safety-security interface are developed and revised by interdisciplinary teams.

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

Mr Dies Llovera, Mr Lund and Mr Tracy volunteered to provide presentations at the 41st CSS meeting on the use of standards in Spain, Sweden and the United States of America, respectively.

Mr Delattre informed the Commission of the dates proposed for holding the next meetings, namely from the afternoon of Wednesday 19 April to Friday 21 April 2017 and in the week from 30 October to 3 November 2017.

Mr Webster drew attention to action 36.03, on the proposed holistic review of Safety Guides, in particular with the objective of reducing their number in accordance with the 2008 roadmap. He also

noted the function of the CSS to provide guidance on the approach and strategy for the safety standards and requested that this topic be included on the agenda for the 41st CSS meeting. The Secretariat was requested to provide some background material in support of this discussion. Mr Delattre indicated that the expected situation after three years could be used as an input for the discussion [Annex III, Action 40.05].

Mr Delattre also indicated that a draft list of actions resulting from the 40th CSS meeting would be provided for comment to the CSS members [Annex III, Action 40.08] and that the draft report of the 40th CSS meeting would be posted for comment to the CSS web site [Annex III, Action 40.09]. Mr Delattre informed the Commission that all presentations made at the 40th CSS meeting would be posted on the CSS web site [Annex III, Action 40.10].

ANNEX I

PARTICIPATION AT THE 40th CSS MEETING

The Commission

A.J. González, Argentina

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

P.F. Lavalle Heilbron Filho, Brazil

Mr. R. Jammal, Canada (sent apologies – unable to attend; represented by Mr Webster)

Y. Zhao, China

D. Drábová (Chair), Czech Republic

M.R.M. Ezz El-Din (sent apologies – unable to attend)

P. Tiippana, Finland

J.-L. Lachaume, France

A. Vorwerk, Germany (sent apologies – unable to attend; represented by Mr Weidenbrück)

S. A. Bhardwaj, India (sent apologies – unable to attend; represented by Mr Shukla)

M. Markovits, Israel

T. Fuketa, Japan (sent apologies – unable to attend; represented by Mr Hirano)

G. H. Yoo, Republic of Korea (sent apologies – unable to attend; represented by Mr Kim)

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

M. A. Habib, Pakistan

A. Ferapontov, Russian Federation

M. Žiaková, Slovakia

C.O. Phillips, South Africa

J. Dies Llovera, Spain

I. Lund, Sweden

D. Senior, United Kingdom

G. Tracy, United States of America

Observers

R. Awad, AdSec (sent apologies – unable to attend)

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

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

R. Meserve, INSAG (sent apologies – unable to attend; represented by Mr Weightman)

H. Nieh, OECD NEA (sent apologies – unable to attend)

Chairpersons of the Review Committees

A. Heinrich, EPReSC

B. Dal, NSGC

F. Feron, NUSSC

G. Massera, RASSC

P. J. Hinrichsen, TRANSSC

G. Williams, WASSC

Representatives and associated experts

Mr Ahn, Mr de los Reyes, Ms Forest, Mr Hirano, Ms Johnson, Mr Konoplev, Mr Kuske, Mr Matsuki, Ms Sampson, Mr Shukla, Ms Spevakova, Mr Turner, Mr Ugayama, Mr Weidenbrück, Mr Weightman, Mr Zegri

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)

T. Andrews, L. Guo, M. Khaliq, D. Liu, S. Mallick, H. Mansoux, S. Morita, A. Nicic, A. Orrell, M. Pinak, S. Purvis, A. Shokr, C. Spitzer, P. Tarren

K. Asfaw, F. Bakri, T. Boal, M. Breitinger, N. Capadona, R. de La Vega, R. Larsen, V. Ljubenov, D. Telleria

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

Fortieth Meeting of the
COMMISSION ON SAFETY STANDARDS
8-10 November 2016

1. Opening Session

1.1 Opening of the Meeting

1.2 Introductions, Adoption of the Agenda, Adoption of the 39th CSS meeting report

1.3 Administrative arrangements for the meeting, Status on the main topics for the 5th CSS term, Status of the endorsed Standards and Response to Actions from the 39th Meeting and 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

2.2 Nuclear Safety Standards Committee

2.3 Radiation Safety Standards Committee

2.4 Transport Safety Standards Committee

2.5 Waste Safety Standards Committee

2.6 Information on the meeting of the Nuclear Security Guidance Committee

2.7 Summary of the meeting of the Chairs held on 7 November 2016 before the CSS meeting

3. Approval of draft publications and DPPs

3.1 Draft Safety Guide DS432 Radiation Protection of the Public and Protection of the Environment

3.2 Draft Safety Guide DS427 Prospective Radiological Environmental Impact Assessment for Facilities and Activities

3.3 Draft Safety Guide DS442 Regulatory Control of Radioactive Discharges to the Environment

3.4 Draft Safety GuideDS452 Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle Facilities

3.5 Revised draft DPP DS469 for a Safety Guide on Preparedness and Response for an Emergency during the Transport of Radioactive Material

3.6 Draft DPP DS496 for the revision of the Safety Guide SSG-26 on Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material

3.7 Draft DPP DS497 for the revision of eight closely interrelated Safety Guides supporting the Safety Requirements SSR-2/2 (Rev. 1): NS-G-2.2 to 2.87 and NS-G-2.14

4. DPPs and draft Nuclear Security Series publications for information

4.1 Draft Implementing Guide NST009 Building Capacity for Nuclear Security

4.2 Draft Implementing Guide NST041 Preventive and Protective Measures against Insider Threats

4.3 Draft DPP for an Implementing Guide NST058 NSS Development, Use and Maintenance of Threat Assessment and Design Basis Threat

5. Policy discussion

5.1 Finalization of the recommendations for the 6th CSS term

5.2 CSS policy paper on the basis of the contribution from RASSC on the implications of the UNSCEAR report “Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks” for the development of IAEA safety standards

5.3 Exchange with INSAG on the 20 July 2016 INSAG Chair letter to DG on Institutional Strength in Depth

5.4 Status of the NSS-OUI IT platform

5.5 Implications for the users of the safety standards of the copyright notice inserted in all published standards

6. Use of IAEA Safety Standards in Member States

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

ANNEX III

ACTIONS ARISING FROM THE 40th MEETING OF THE COMMISSION

40.01 The final report of the 39th CSS meeting to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary].**

40.02 A Working Group of CSS members, including the Chairs of RASSC, EPReSC and WASSC, to be established to consider the implications of the UNSCEAR report "Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks" for the development of IAEA safety standards, using as a basis the proposal submitted by MM. Larsson and González; representatives from the Secretariats of ICRP and UNSCEAR to be invited to participate in the Working Group **[Action: Secretariat, CSS Scientific Secretary; CSS members, ICRP and UNSCEAR Secretariat]**

40.03 A summary to be provided at the 41st CSS meeting on how the standards reflect the concept of institutional strength in depth as set out in the INSAG-27 report **[Action: Secretariat, CSS Scientific Secretary]**

40.04 The Secretariat to investigate means by which the copyright conditions, as set out at the front of all IAEA Safety Standards and on the publications web page, can be simplified and made more welcoming to possible reproductions or translations of standards **[Action: Secretariat, CSS Scientific Secretary]**

40.05 An agenda item to be included at the 41st CSS meeting on a holistic review of the collection of Safety Guides, aimed at developing an approach to ensuring their consistency, completeness and proper interdependence, with background material to be provided accordingly, including as a first input the situation that is to be expected in three years' time, when ongoing projects are completed **[Action: Secretariat, CSS Scientific Secretary]**

40.06 The agreed priorities, or 'interests', of the CSS for its 6th term to be updated in accordance with the discussions at the 40th meeting and included as an annex to the meeting report of the 40th meeting **[Action: Secretariat, CSS Scientific Secretary]**

40.07 CSS members to request, on a voluntary basis, rights for accessing the feedback collection interface of the NSS-OUI Platform **[Action: Secretariat, CSS Scientific Secretary; CSS members]**

40.08 A list of actions resulting from the 40th CSS meeting to be provided to the CSS members for comment. **[Action: Secretariat, CSS Scientific Secretary].** ***This list***

40.09 The draft report of the 40th CSS meeting to be posted for comment. **[Action: Secretariat, CSS Scientific Secretary].**

40.10 The presentations made at the 40th CSS meeting to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary].**

ANNEX IV

STATUS OF MAIN TOPICS OF THE 4TH CSS TERM

#	Main topics	Reference set of SG	Status/action
3	Guidance and assistance related to the new applications of radiation sources	Items 68 to 76	DS409 (Gamma, Electron and X Ray) published SSG-8 DS408 (Industrial Radiography) published SSG-11 DS419 (Well logging) Step 11 DS420 (Nuclear gauges) Step 11 DS434 (Radioisotope production facilities) Step 7 DS470 (Radiation Sources in Research and Education) being drafted DS471 (X-ray Generators and Sources Used for Inspection Purposes) Step 9 DS458 (Consumer Products) published SSG-36
7	Assistance and additional safety guidance to countries dealing with expanded uranium exploration and mining	Item 83	DS 421 (Exposure Indoors due to Radon and Other Natural Sources of Radiation) published SSG-32 Draft DS459 (Residues from Mining, Mineral Processing, and other NORM Activities) at Step 8
8	Guidance on public exposures to natural sources of ionizing radiations (radon, NORM residues, aircrew…) and for the safety of uranium mining activities	Item 5	
9	Crucial need to further improve promotion of the application of the safety standards on medical applications including recommendations that will reduce the frequency of over or under exposures related to nuclear medicine, and to enhance these standards as appropriate	NA. Relates to the application of SS, in particular of item 68	DS399 (Medical Uses of Ionizing Radiation) in publication

ANNEX V

STATUS OF MAIN PRIORITIES FOR THE 5TH CSS TERM

1. Finalization of the General Safety Requirements (including review following the Fukushima Daiichi accident): Finalized with publication of GSR Part 2

2. Initiation of the revision of the remaining Specific Safety Requirements (including review of other Specific Safety Requirements following the Fukushima Daiichi accident): Revision of NS-R-3 (Rev. 1) DS484 at Step 5, SSR-3 published and NS-R-5 (DS478 at Step 11).

3. Enhancing the feedback process: NSS-OUI system for centralized feedback collection and retrieval in place. Test phase started with the guides that support SSR-2/2 (Rev. 1). DPP DS497 at this meeting (item 3.7).

4. Exposure to radon: SSG-32 published

5. Medical exposure: DS399 in publication.

6. Application of the justification principle: GSG-5 published

7. Harmonization of exemption, clearance criteria and other radionuclide specific criteria: DS458 (SSG-36) published and two new DPPs prepared: DS499 (exemption) and DS500 (clearance).

8. NORM related issues: DS459 at Step 8.

9. Occupational radiation protection, including its application to rescuers: DS453 (being published) and DS457 published as GSR Part 7.

10. Knowledge management: GSR Part 2 published, amendment of GSR Part 4 published and knowledge management for regulatory bodies in DS473 at Step 11.

11. Regulatory oversight of human and organizational factors: GSR Part 1 (Rev. 1) published

12. The safety/security interface: Process and Committees in place. Harmonization of the TORs of the RCs. Guidance for drafters prepared and included in a revision of SPESS C.

13. Usefulness of standards for countries embarking on nuclear power programmes: Keep receiving insight from users. User-friendliness enhanced with NSS-OUI.

14. The need for more detail in standards on PSA and severe accident management: DPP for the revision of NS-G-2.15 (DS483) at Step 10.

ANNEX VI

CURRENT SAFETY STANDARDS

[status on 09 November 2016]

A. Safety Fundamentals

SF-1	Fundamental Safety Principles (2006) **Co-sponsorship:** Euratom, FAO, ILO, IMO, OECD/NEA, PAHO, UNEP, WHO [ACEFRS][4]

B. General Safety Standards (applicable to all facilities and activities)

GSR Part 1 (Rev.1)	Governmental, Legal and Regulatory Framework for Safety (2016) [E]
GSR Part 2	Leadership and Management for Safety (2016) [E]
GSR Part 3	Radiation Protection and Safety of Radiation Sources –International Basic Safety Standards (2014) [ACEFR]
GSR Part 4 (Rev.1)	Safety Assessment for Facilities and Activities (2016) [E]
GSR Part 5	Predisposal Management of Radioactive Waste (2009) [ACEFRS]
GSR Part 6	Decommissioning of Facilities (2014) [ACER]
GSR Part 7	Preparedness and Response for a Nuclear or Radiological Emergency (2015) **Co-sponsorship:** FAO, ICAO, ILO, IMO, INTERPOL, OECD/NEA, PAHO, CTBTO, UNEP, OCHA, WHO, WMO [E]

GSG-1	Classification of Radioactive Waste (2009) [ERS]
GSG-2	Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency (2011) [AEFRS]
GSG-3	The Safety Case and Safety Assessment for the Predisposal Management of Radioactive Waste (2013) [E]
GSG-4	Use of External Experts by the Regulatory Body (2013) [E]
GSG-5	Justification of Practices, Including Non-medical Human Imaging (2014) [E]
GS-G-2.1	Arrangements for Preparedness for a Nuclear or Radiological Emergency (2007) **Co-sponsorship:** FAO, OCHA, ILO, PAHO, WHO [ES]
GS-G-3.1	Application of the Management System for Facilities and Activities (2006) [ER]
GS-G-3.2	The Management System for Technical Services in Radiation Safety (2008) [EFR]
GS-G-3.3	The Management System for the Processing, Handling and Storage of Radioactive Waste (2008) [ER]
RS-G-1.1	Occupational Radiation Protection (1999) **Co-sponsorship:** ILO [ACEFRS]
RS-G-1.2	Assessment of Occupational Exposure Due to Intakes of Radionuclides (1999) **Co-sponsorship:** ILO [ACEFRS]
RS-G-1.3	Assessment of Occupational Exposure Due to External Sources of Radiation (1999) **Co-sponsorship:** ILO [ACEFRS]
RS-G-1.4	Building Competence in Radiation Protection and the Safe Use of Radiation Sources (2001) **Co-sponsorship:** ILO, PAHO, WHO [ACEFRS]
RS-G-1.7	Application of the Concepts of Exclusion, Exemption and Clearance (2004) [CERS]
RS-G-1.8	Environmental and Source Monitoring for Purposes of Radiation Protection (2005) [ERS]
RS-G-1.9	Categorization of Radioactive Sources (2005) [ACEFRS]

[4] A=available in Arabic; C=available in Chinese; E=available in English; F=available in French; R=available in Russian; S=available in Spanish

WS-G-2.3	Regulatory Control of Radioactive Discharges to the Environment (2000) (under revision) [ACEFRS]
WS-G-3.1	Remediation Process for Areas Affected by Past Activities and Accidents (2007) [ES]
WS-G-5.1	Release of Sites from Regulatory Control on Termination of Practices (2006) [ERS]
WS-G-5.2	Safety Assessment for the decommissioning of Facilities Using Radioactive Material (2008) [ERS]
WS-G-6.1	Storage of Radioactive Waste (2006) [ERS]

C. Specific Safety Standards (applicable to specified facilities and activities)

C.1. Nuclear Power Plants

SSR-2/1 (Rev.1)	Safety of Nuclear Power Plants: Design (2016) [E]
SSR-2/2 (Rev.1)	Safety of Nuclear Power Plants: Commissioning and Operation (2016) [E]
NS-R-3 (Rev.1)	Site Evaluation for Nuclear Installations (2016) [EF]

GS-G-1.1	Organization and Staffing of the Regulatory Body for Nuclear Facilities (2002) [CEFRS]
GS-G-1.2	Review and Assessment of Nuclear Facilities by the Regulatory Body (2002) [CEFR]
GS-G-1.3	Regulatory Inspection of Nuclear Facilities and Enforcement by the Regulatory Body (2002) [CEFRS]
GS-G-1.4	Documentation for Use in Regulating Nuclear Facilities (2002) [CEFRS]
GS-G-3.5	The Management System for Nuclear Installations (2009) [ER]
GS-G-4.1	Format and Content of the Safety Analysis report for Nuclear Power Plants (2004) [EC]
NS-G-1.4	Design of Fuel Handling and Storage Systems for Nuclear Power Plants (2003) [ERS]
NS-G-1.5	External Events Excluding Earthquakes in the Design of Nuclear Power Plants (2003) [ER]
NS-G-1.6	Seismic Design and Qualification for Nuclear Power Plants (2003) [ER]
NS-G-1.7	Protection against Internal Fires and Explosions in the Design of Nuclear Power Plants (2004) [ER]
NS-G-1.9	Design of the Reactor Coolant System and Associated Systems in Nuclear Power Plants (2004) [ERS]
NS-G-1.10	Design of Reactor Containment Systems for Nuclear Power Plants (2004) [ER]
NS-G-1.11	Protection against Internal Hazards other than Fires and Explosions in the Design of Nuclear Power Plants (2004) [E]
NS-G-1.12	Design of the Reactor Core for Nuclear Power Plants (2005) [ECR]
NS-G-1.13	Radiation Protection Aspects of Design for Nuclear Power Plants (2005) [ER]
NS-G-2.1	Fire Safety in the Operation of Nuclear Power Plants (2000) [ECFR]
NS-G-2.2	Operational limits and Conditions and Operating Procedures for Nuclear Power Plants (2000) [CEFRS]
NS-G-2.3	Modifications to Nuclear Power Plants (2001) [CEFRS]
NS-G-2.4	The Operating Organization for Nuclear Power Plants (2001) [CEFR]
NS-G-2.5	Core Management and Fuel Handling for Nuclear Power Plants (2002) [ER]
NS-G-2.6	Maintenance, Surveillance and In-Service Inspection in Nuclear Power Plants (2002) [ER]
NS-G-2.7	Radiation Protection and Radioactive Waste Management in the Operation of Nuclear Power Plants (2002) [ERS]

NS-G-2.8	Recruitment, Qualification and Training of Personnel for Nuclear Power Plants (2002) [ER]
NS-G-2.11	A System for the Feedback of Experience from Events in Nuclear Installations (2006) [ERS]
NS-G-2.12	Ageing Management for Nuclear Power Plants (2009) [ER]
NS-G-2.13	Evaluation of Seismic Safety for Existing Nuclear Installations (2009) [ERS]
NS-G-2.14	Conduct of Operations at Nuclear Power Plants (2008) [ERS]
NS-G-2.15	Severe Accident Management Programmes for Nuclear Power Plants (2009) [ERS]
NS-G-3.1	External Human Induced Events in Site Evaluation for Nuclear Power Plants (2002) [ECFR]
NS-G-3.2	Dispersion of Radioactive Material in Air and Water and Consideration of Population Distribution in Site Evaluation for Nuclear Power Plants (2002) (under revision) [ER]
NS-G-3.6	Geotechnical Aspects of Site Evaluation and Foundations for Nuclear Power Plants (2005) [ECR]
SSG-2	Deterministic Safety Analysis for Nuclear Power Plants (2009) [ERS]
SSG-3	Development and Application of Level 1 Probabilistic Safety Assessment for Nuclear Power Plants (2010) [ER]
SSG-4	Development and Application of Level 2 Probabilistic Safety Assessment for Nuclear Power Plants (2010) [ER]
SSG-9	Seismic Hazards in Site Evaluation for Nuclear Installations (2010) [E]
SSG-12	Licensing Process for Nuclear Installations (2010) [ES]
SSG-13	Chemistry Programme for Water Cooled Nuclear Power Plants (2011) [ER]
SSG-16	Establishing the Safety Infrastructure for a Nuclear Power Programme (2012) [ER]
SSG-18	Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations (2011) **Co-sponsorship:** WMO [E]
SSG-21	Volcanic Hazards in Site Evaluation for Nuclear Installations (2012) [ES]
SSG-25	Periodic Safety Review for Nuclear Power Plants (2013) [ER]
SSG-27	Criticality Safety in the Handling of Fissile Material (2014) [E]
SSG-28	Commissioning for Nuclear Power Plants (2014) [E]
SSG-30	Safety Classification of Structures, Systems and Components in Nuclear Power Plants (2014) [E]
SSG-34	Design of Electrical Power Systems for Nuclear Power Plants (2016) [E]
SSG-35	Site Survey and Site Selection for Nuclear Installations (2015) [E]
SSG-38	Construction for Nuclear Installations (2015) [E]
SSG-39	Design of Instrumentation and Control Systems for Nuclear Power Plants (2016) [E]
SSG-40	Predisposal Management of Radioactive Waste from Nuclear Power Plants and Research Reactors (2016) [E]
WS-G-2.1	Decommissioning of Nuclear Power Plants and Research Reactors (1999) (under revision) [AECFR]

C.2. Research Reactors

NS-R-3 (Rev.1)	Site Evaluation for Nuclear Installations (2016) [EF]
SSR-3	Safety of Research Reactors (2016) [E]
GS-G-1.1	Organization and Staffing of the Regulatory Body for Nuclear Facilities (2002) [CEFRS]
GS-G-1.2	Review and Assessment of Nuclear Facilities by the Regulatory Body (2002) [CEFR]
GS-G-1.3	Regulatory Inspection of Nuclear Facilities and Enforcement by the Regulatory Body (2002) [CEFRS]
GS-G-1.4	Documentation for Use in Regulating Nuclear Facilities (2002) [CEFRS]

GS-G-3.5	The Management System for Nuclear Installations (2009) [ER]
NS-G-2.11	A System for the Feedback of Experience from Events in Nuclear Installations (2006) [ERS]
NS-G-2.13	Evaluation of Seismic Safety for Existing Nuclear Installations (2009) [ERS]
NS-G-4.1	Commissioning of Research Reactors (2006) [E]
NS-G-4.2	Maintenance, Periodic Testing and Inspection of Research Reactors (2006) [E]
NS-G-4.3	Core Management and Fuel Handling for Research Reactors (2008) [E]
NS-G-4.4	Operational Limits and Conditions and Operating Procedures for Research Reactors (2008) [E]
NS-G-4.5	The Operating Organization and the Recruitment, Training and Qualification of Personnel for Research Reactors (2008) [E]
NS-G-4.6	Radiation Protection and Radioactive Waste Management in the Design and Operation of Research Reactors (2008) [E]
SSG-9	Seismic Hazards in Site Evaluation for Nuclear Installations (2010) [E]
SSG-10	Ageing Management for Research Reactors (2010) [E]
SSG-12	Licensing Process for Nuclear Installations (2010) [ES]
SSG-18	Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations (2011) **Co-sponsorship:** WMO [E]
SSG-20	Safety Assessment for Research Reactors and Preparation of the Safety Analysis Report (2012) [E]
SSG-21	Volcanic Hazards in Site Evaluation for Nuclear Installations (2012) [E]
SSG-22	Use of a Graded Approach in the Application of the Safety Requirements for Research Reactors (2012) [E]
SSG-24	Safety in the Utilization and Modification of Research Reactors (2012) [E]
SSG-27	Criticality Safety in the Handling of Fissile Material (2014) [E]
SSG-35	Site Survey and Site Selection for Nuclear Installations (2015) [E]
SSG-37	Instrumentation and Control Systems and Software Important to Safety for Research Reactors (2015) [E]
SSG-38	Construction for Nuclear Installations (2015) [E]
SSG-40	Predisposal Management of Radioactive Waste from Nuclear Power Plants and Research Reactors (2016) [E]
WS-G-2.1	Decommissioning of Nuclear Power Plants and Research Reactors (1999) (under revision) [AECFR]

C.3. Fuel Cycle Facilities

NS-R-3 (Rev.1)	Site Evaluation for Nuclear Installations (2016) [EF]
NS-R-5 (Rev.1)	Safety of Nuclear Fuel Cycle Facilities (2014) [ACER]
GS-G-1.1	Organization and Staffing of the Regulatory Body for Nuclear Facilities (2002) [CEFRS]
GS-G-1.2	Review and Assessment of Nuclear Facilities by the Regulatory Body (2002) [CEFR]
GS-G-1.3	Regulatory Inspection of Nuclear Facilities and Enforcement by the Regulatory Body (2002) [CEFRS]
GS-G-1.4	Documentation for Use in Regulating Nuclear Facilities (2002) [CEFRS]
GS-G-3.5	The Management System for Nuclear Installations (2009) [ER]
NS-G-2.11	A System for the Feedback of Experience from Events in Nuclear Installations (2006) [ERS]
NS-G-2.13	Evaluation of Seismic Safety for Existing Nuclear Installations (2009) [ER]
SSG-5	Safety of Conversion Facilities and Uranium Enrichment Facilities (2010) [E]
SSG-6	Safety of Uranium Fuel Fabrication Facilities (2010) [E]
SSG-7	Safety of Uranium and Plutonium Mixed Oxide Fuel Fabrication Facilities (2010) [E]

SSG-9	Seismic Hazards in Site Evaluation for Nuclear Installations (2010) [E}
SSG-12	Licensing Process for Nuclear Installations (2010) [ES]
SSG-15	Storage of Spent Nuclear Fuel (2012) [E]
SSG-18	Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations (2011) **Co-sponsorship:** WMO [E]
SSG-21	Volcanic Hazards in Site Evaluation for Nuclear Installations (2012) [E]
SSG-27	Criticality Safety in the Handling of Fissile Material (2014) [E]
SSG-35	Site Survey and Site Selection for Nuclear Installations (2015) [E]
SSG-38	Construction for Nuclear Installations (2015) [E]
SSG-41	Predisposal Management of Radioactive Waste from Nuclear Fuel Cycle Facilities (2016) [E]
WS-G-2.4	Decommissioning of Nuclear Fuel Cycle Facilities (2001) (under revision) [ECFRS]

C.4. Radioactive Waste Disposal Facilities

SSR-5	Disposal of Radioactive Waste (2011) [ACEFRS]
GS-G-1.1	Organization and Staffing of the Regulatory Body for Nuclear Facilities (2002) [CEFRS]
GS-G-1.2	Review and Assessment of Nuclear Facilities by the Regulatory Body (2002) [CEFR]
GS-G-1.3	Regulatory Inspection of Nuclear Facilities and Enforcement by the Regulatory Body (2002) [CEFRS]
GS-G-1.4	Documentation for Use in Regulating Nuclear Facilities (2002) [CEFRS]
GS-G-3.4	The Management System for the Disposal of Radioactive Waste (2008) [ER]
SSG-1	Borehole Disposal Facilities for Radioactive Waste (2009) [E]
SSG-14	Geological Disposal Facilities for Radioactive Waste (2011) [E]
SSG-23	The Safety Case and Safety Assessment for the Disposal of Radioactive Waste (2012) [E]
SSG-29	Near Surface Disposal Facilities for Radioactive Waste (2014) [E]
SSG-31	Monitoring and Surveillance of Radioactive Waste Disposal Facilities (2014) [E]

C.5. Mining and Milling

RS-G-1.6	Occupational Radiation Protection in the Mining and Processing of Raw Materials (2004) [ES]
WS-G-1.2	Management of Radioactive Waste from the Mining and Milling of Ores (2002) (under revision) [ERS]

C.6. Applications of Radiation Sources

GSR Part 3	Radiation Protection and Safety of Radiation Sources – International Basic Safety Standards (2014) [ACEFR]
GS-G-1.5	Regulatory Control of Radiation Sources (2004) **Co-sponsorship:** FAO, ILO, PAHO, WHO [AEFS]
RS-G-1.4	Building Competence in Radiation Protection and the Safe Use of Radiation Sources (2001) **Co-sponsorship:** ILO, PAHO, WHO [ACEFRS]
RS-G-1.5	Radiological Protection for Medical Exposure to Ionizing Radiation (2002) **Co-sponsorship:** PAHO, WHO (under revision) [CEFRS]
RS-G-1.9	Categorization of Radioactive Sources (2005) [ACEFRS]

RS-G-1.10	Safety of Radiation Generators and Sealed Radioactive Sources (2006) **Co-sponsorship**: ILO, PAHO, WHO [EFS]
SSG-8	Radiation Safety of Gamma, Electron and X Ray Irradiation Facilities (2010) [ES]
SSG-11	Radiation Safety in Industrial Radiography (2011) [AEFS]
SSG-17	Control of Orphan Sources and Other Radioactive Material in the Metal Recycling and Production Industries (2012) [AEFR]
SSG-19	National Strategy for Regaining Control over Orphan Sources and Improving Control over Vulnerable Sources (2011) [AEFS]
SSG-32	Protection of the Public against Exposure Indoors due to Radon and Other Natural Sources of Radiation (2015) [E]
SSG-36	Radiation Safety for Consumer Products (2016) [E]
WS-G-2.2	Decommissioning of Medical, Industrial and Research Facilities (1999) (under revision) [ACEFRS]
WS-G-2.7	Management of Waste from the Use of Radioactive Materials in Medicine, Industry, Agriculture, Research and Education (2005) [CERS]

C.7. Transport of Radioactive Material

SSR-6	Regulations for the Safe Transport of Radioactive Material 2012 Edition (2012) [ACEFRS]
SSG-26	Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material (2012 edition) (2014) [E]
SSG-27	Criticality Safety in the Handling of Fissile Material (2014) [E]
SSG-33	Schedules of Provisions of the IAEA Regulations for the Safe Transport of Radioactive Material (2012 Edition) (2015) [ERS]
TS-G-1.2	Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material (2002) [ERS]
TS-G-1.3	Radiation Protection Programmes for the Transport of Radioactive Material (2007) [ES]
TS-G-1.4	The Management System for the Safe Transport of Radioactive Material (2008) [ER]
TS-G-1.5	Compliance Assurance for the Safe Transport of Radioactive Material (2009) [E]

ANNEX VII

PROJECTS AND DRAFT STANDARDS UNDER DEVELOPMENT

[status on 09 November 2016]

PROJECTS:

DS498: External Events Excluding Earthquakes in the Design of Nuclear Installations, revision of NS-G-1.5 [Step 3]

DS499: Application of the Concept of Exemption including Criteria for Trade in Contaminated Commodities [Step 3]

DS500: Implementation of the Clearance Concept [Step 3]

DS502: Continuous Improvement of Operational Safety Performance [Step 3]

DRAFT STANDARDS UNDER DEVELOPMENT:

DS497: Revision of eight closely interrelated safety guides on operational safety for NPPs: NS-G-2.2 to 2.8 and NS-G-2.14 [Step 5]

DS496: Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material – Edition for the revision of SSR-6 [Step 5]

DS495: Regulations for the Safe Transport of Radioactive Material, 20xx Edition – SSR-6, revision of SSR-6 [Step 8]

DS494: Protection against Internal Hazards in the Design of Nuclear Power Plants, revision and combination of NS-G-1.7 and NS-G-1.11 [Step 5]

DS493: Package Design Safety Reports for the Transport of Radioactive Material, amendment and addendum to TS-G-1.5 [Step 8]

DS492: Human Factors Engineering in Nuclear Power Plants [Step 7]

DS491: Deterministic Safety Analysis for Nuclear Power Plants (revision of SSG-2) [Step 8]

DS490: Seismic Design and Qualification for Nuclear Power Plants (revision of NS-G-1.6) [Step 5]

DS489: Storage of Spent Nuclear Fuel, revision of SSG-15 [Step 7]

DS488: Design of the Reactor Core for Nuclear Power Plants, revision of NS-G-1.12 [Step 8]

DS487: Design of Fuel Handling and Storage Systems for Nuclear Power Plants, revision of NS-G-1.4 [Step 5]

DS486: Establishing the Safety Infrastructure for a Nuclear Power Programme (Rev. 1), revision of SSG-16 [Step 10]

DS485: Ageing Management and Programme for Long Term Operation for Nuclear Power Plants, revision of NS-G-2.12 [Step 11]

DS484: Site Evaluation for Nuclear Installations, revision of NS-R-3 [Step 5]

DS483: Severe Accident Management Programme for Nuclear Power Plants, revision of NS-G-2.15 [Step 10]

DS482: Design of Reactor Containment Systems for Nuclear Power Plants, revision of NS-G-1.10 [Step 8]

DS481: Design of the Reactor Coolant System and Associated Systems in Nuclear Power Plants, revision of NS-G-1.9 [Step 7]

DS479: Operating Experience Feedback for Nuclear Installations, revision of NS-G-2.11 [Step 10]

DS478: Safety of Nuclear Fuel Cycle Facilities, revision of NS-R-5 [Step 11]

DS477: The Management System for the Predisposal and Disposal of Radioactive Waste, revision and combination of GS-G-3.3 and GS-G-3.4 [Step 5]

DS475: Arrangements for Public Communications in Preparedness and Response for a Nuclear or Radiological Emergency [Step 5]

DS474: Arrangements for the termination of a nuclear or radiological emergency [Step 8]

DS473: Regulatory Body Functions and Processes, revision and combination of GS-G-1.2, GS-G-1.3, GS-G-1.4, part of GS-G-1.5, part of SSG-12 and part of WS-G-5.1 [Step 10]

DS472: Organization, Management and Staffing of a Regulatory Body, revision and combination of GS-G-1.1, part of GS-G-1.5, GSG-4 and DS113 and DS460 [Step 10]

DS471: Radiation Safety of X-ray Generators and Radiation Sources Used for Inspection Purposes and for Non-Medical Imaging [Step 9]

DS470: Radiation Safety of Radiation Sources Used in Research and Education [Step 5]

DS469: Preparedness and Response for an Emergency during the Transport of Nuclear Material or Radioactive Material, Revision of TS-G-1.2 [Step 5]

DS468: Remediation Process for Areas with Residual Radioactive Material (revision of WS-G-3.1) [Step 7]

DS460: Communication and Consultation with Interested Parties by the Regulatory Body [Step 14]

DS459: Management of Radioactive Residues from Mining, Mineral Processing, and other NORM related Activities (revision and expansion of WS-G-1.2) [Step 8]

DS455: Establishing the Infrastructure for Radiation Safety [Step 14]

DS454: Predisposal Management of Waste from the Use of Radioactive Materials in Medicine, Industry, Research, Agriculture and Education (revision of WS-G-2.7) [Step 14]

DS453: Occupational Radiation Protection (revision of RS-G-1.1, RS-G-1.2, RS-G-1.3, RS-G-1.6, GS-G-3.2) [Step 14]

DS452: Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle Facilities (revision of WS-G-2.1 and WS-G-2.4) [Step 12]

DS449: Format and Content of the Safety Analysis Report for Nuclear Power Plants (revision of GS-G-4.1) [Step 7]

DS442: Regulatory control of radioactive discharges to the environment (revision of WS-G-2.3) [Step 12]

DS440: Design of Auxiliary and Supporting Systems in Nuclear Power Plants [Step 5]

DS434: Radiation Safety of Radioisotope Production Facilities [Step 7]

DS432: Radiation Protection of the Public and Protection of the Environment [Step 12]

DS427: Prospective Radiological Environmental Impact Analysis for Facilities and Activities, revision of NS-G-3.2 [Step 12]

DS420: Radiation Protection and Safety in Nuclear Gauges [Step 11]

DS419: Radiation Protection and Safety in Well Logging [Step 11]

DS403: Decommissioning of Medical, Industrial and Research Facilities (revision of WS-G-2.2) [Step 9]

DS399: Radiation Protection and Safety in Medical Uses of Ionizing Radiation (revision of RS-G-1.5) [Step 14]

DS381: Safety of Nuclear Fuel Cycle R&D Facilities [Step 14]

DS360: Safety of Nuclear Fuel Reprocessing Facilities [Step 14]

ANNEX VIII

DRAFTS OF THE NUCLEAR SECURITY SERIES UNDER DEVELOPMENT (INTERFACE DOCUMENTS ONLY; TENTATIVE TITLES ONLY) [status end of November 2016]

NST058: Development, Use and Maintenance of Threat Assessment and Design Basis Threat [Step 5]

NST051: Security During the Lifetime of a Nuclear Facility [Step 8]

NST049: Detection of and Initial Response to Radioactive Material at Undesignated Points of Entry and Exit [Step 5]

NST048: Security of Radioactive Material in Use and Storage and of Associated Facilities [Step 12]

NST045: Computer Security for Nuclear Security [Step 8]

NST044: Security of Radioactive Material in Transport [Step 11]

NST041: Preventive and Protective Measures against Insider Threats [Step 12]

NST023: Physical Protection of Nuclear Facilities and of Nuclear Material [Step 14]

NST020: Sustaining a Nuclear Security Regime [Step 14]

NST016: Detection of Radioactive Material at Designated Points of Entry and Exit [Step 5]

NST011: Preventive Measures for Nuclear and Other Radioactive Material out of Regulatory Control [Step 8]

NST009: Building Capacity for Nuclear Security [Step 14]

NST006: Framework for International Cooperation and Assistance on Nuclear Security [Step 5]

NST005: Regaining Control over Nuclear and Other Radioactive Material out of Regulatory Control [Step 5]

NST004: Developing a National Framework for Managing Response to Nuclear Security Events [Step 11]

NST002: Developing Regulations and Associated Administrative Measures for Nuclear Security [Step 14]

ANNEX IX

STATUS OF ACTIONS FROM THE 39TH MEETING OF THE COMMISSION

39.01 The CSS Chair, with the assistance of volunteers from the CSS members, to prepare, on the basis of the RASSC contribution paper, a CSS policy on the implications of the UNSCEAR report "Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks" for the development of IAEA safety standards. **[Action: CSS Chairs, Volunteers from CSS, CSS Scientific Secretary]. Done. Proposed resolution at this meeting (item 5.2)**

39.02 The Secretariat to ensure that all draft standards are subject to a comprehensive technical editorial review before their review at the SPESS step 11 by the Committee. **[Action: Secretariat, Review Committees Scientific Secretary]. In place for NSOC review. Discussion with publishing section for further steps improvements.**

39.03 The Secretariat to identify and study the conditions to be met in order to start the preparation of a Joint Safety-Security Fundamentals and make further steps toward better integration of safety and nuclear security. **[Action: Secretariat]. Discussion with NSGC.**

39.04 The CSS Chair, with DIR-NSOC and the CSS Secretariat to prepare a set of priorities for the 6th CSS term, on the basis of the recommendations from the 5th term end of term report and of the discussion at the 39th CSS meeting, for approval at the 40th CSS meeting. **[Action: CSS Chairs, DIR-NSOC, CSS Scientific Secretary]. Done Proposal for finalization at this meeting (item 5.1).**

39.05 The Secretariat to prepare guidelines on the use of the IT Platform by Member States. **[Action: Secretariat]. Done. Users' guide available on the site as well as video demonstration. SPESS E also revised.**

39.06 The Secretariat to seek clarification on the implications for the users of the safety standards of the copyright notice inserted in all published standards. **[Action: Secretariat]. Done. Will be addressed at this meeting (item 5.5).**

39.07 A list of actions resulting from the 39th CSS meeting to be provided to the CSS members for comment. **[Action: Secretariat, CSS Scientific Secretary]. Done. This list**

39.08 The draft report of the 39th CSS meeting to be posted for comment. **[Action: Secretariat, CSS Scientific Secretary]. Done. Report approved under item 1.2.**

39.09 The presentations made at the 39th CSS meeting to be uploaded on the CSS web page. **[Action: Secretariat, CSS Scientific Secretary]. Done**

ANNEX X

CSS INTERESTS FOR ITS SIXTH TERM[5]

1) Harmonize safety standards and security recommendations, as well as the IAEA's process for developing them, to facilitate accomplishing the common objective of safety and security - to protect people and the environment. Such harmonization will assist operators, users of radioactive sources, and regulators in accomplishing this common objective. Actionable steps for safety and security harmonization to be initiated, with involvement of the NSGC, during the sixth CSS term could include:

- Promoting a common development process for safety standards and security recommendations and associated guidance, including further involvement of the CSS.
- Consolidating safety standards and security recommendations for radioactive source users consistent with the Code of Conduct on the Safety and Security of Radioactive Sources.
- Consolidating safety standards and security recommendations for transportation of radiation sources and nuclear material consistent with United Nations standards.
- Progressing on a common glossary for nuclear security and safety.

2) On the basis of experience gained from existing Review Committees including the newly established EPReSC, perform a review of the safety committees structure and recommend to the DG a future optimum structure that should be adopted to meet the needs of the IAEA Secretariat and Member States for the development of high quality standards and guidance in the most effective and efficient way. Identify options to further enhance the benefit of holding joint sessions of the Review Committees.

3) Considering the observations and lessons in the Director General's Fukushima Daiichi Accident Report, confirm those areas that the safety committees need to continue to focus on, and progress the development of new standards and guidance to address the remaining gaps. These are expected to include, for example, post-emergency recovery procedures, criteria for food, drinking water, non-food commodities and methodology for their development.

4) After appropriate pilot testing to demonstrate performance, implement the IT platform for the development, review, dissemination, and revision of IAEA safety standards and security recommendations and associated guidance. Based on early experience in applying the IT platform, utilize its functionality to optimize and enhance the effectiveness and efficiency of the process for the production of safety standards and security recommendations and associated guidance.

5) Perform a holistic review of the complete collection of Safety Guides and as appropriate a prioritization for new guides or revision of existing ones.

6) Clarify the radiation protection system in existing exposure situations providing guidance to decision makers and experts on preparing dialogue and elaborating clear messages to stakeholders based on addressing "prevailing circumstances".

7) Finalize the development of the guidance on transition from emergency situations to recovery situations and the guidance on communication before, during and after an emergency situation.

8) Develop, in cooperation with the relevant international organizations, guidance on radiation protection in exposure situations characterized by very low doses and dose rates.

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[5] More details on the discussion and on other important items are recorded in the minutes of the 39th and 40th CSS meetings held in 2016.

9) Investigate with NSGC what input might be needed from the Safety Standards Committees for the Nuclear Security Series on further guidance on the use of “unacceptable radiological consequences” and “high radiological consequences” as criteria for implementing specific recommendations.

10) The Secretariat to continue the joint MTCD/NS efforts to streamline the approval and publication process and significantly enhance its effectiveness and the Secretariat to ensure that the final draft, after editing, is submitted to the CSS for its endorsement.