Overview of main results of the meeting

A. The following draft Safety Standards were endorsed for publication:
   • DS360: Safety of Nuclear Fuel Reprocessing Facilities
   • DS381: Safety of Nuclear Fuel Cycle Research and Development Facilities
   • DS460: Communication and Consultation with Interested Parties by the Regulatory Body

B. The following DPPs were approved:
   • DS449: Format and Content of the Safety Analysis Report for Nuclear Power Plants (revision of GS-G-4.1)
   • DS493: The Structure and Information to be Included in a Package Design Safety Report (PDSR) for the Transport of Radioactive Material

C. The Commission concluded its fifth term with agreement on an end-of-term report and established a list of recommendations for the sixth term of the Commission, which begins in 2016.
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 38th meeting of the Commission on Safety Standards and welcomed all members. He noted that the CSS is a strategic instrument of coordination between the Secretariat and the Agency’s main customers, the Member States, for the development of the IAEA safety standards.

Mr Lentijo first introduced himself. Before he took up his position as DDG-NS on 1 October 2015, he had been the Director of the Division of Nuclear Fuel Cycle and Waste Technology in the Department of Nuclear Energy for three and a half years; and prior to that he had worked for the Spanish regulatory body for almost 30 years, where he had worked with the IAEA safety standards.

Mr Lentijo paid tribute to his predecessor as DDG-NS, Denis Flory, who had effectively promoted the activities of the Commission. He also thanked Paul Woodhouse in his capacity as Section Head of the Safety and Security Coordination Section, as this was his last CSS meeting, who had been instrumental in organizing the Secretariat’s support to the CSS.

He thanked all members of the Commission, at this last meeting of the fifth term, for all the work already accomplished during the term and particularly the review/revision of the Safety Requirements to incorporate lessons from the Fukushima Daiichi accident. Furthermore, he considered the recently issued IAEA Report on the Fukushima Daiichi Accident to be a very relevant instrument for Member States and international organizations and also for the development and revision of safety standards.

He drew attending to several important items on the agenda:

- The finalization of the end of term report with recommendations for the next term; he committed the Secretariat to following these recommendations;
- The update providing information on the status for the establishment of EPResc; in this context he welcomed Ms Ann Heinrich, the EPResc Chair, as a new CSS member;
- The update of SPESS to include the establishment of EPResc and other recent elements such as the policy paper on qualitative vs quantitative standards;
- The new SPESS E document on the IT platform and demonstration of the new NSS-OUI interface.

Mr Lentijo indicated that the renewal process for the next term’s nominations would begin after this meeting. It was essential to ensure good continuity of this strategic instrument.

Mr Lentijo also announced some upcoming important events:

- The year 2016 would be the 20th anniversary of the establishment of the Department of Nuclear Safety and Security and of the CSS and Committees structure;
- An International Conference on Research Reactors: Safe Management and Effective Utilization would be held from 16-20 November 2015 in Vienna;
- An International Conference on Human and Organizational Aspects of Assuring Nuclear Safety – Exploring 30 Years of Safety Culture would be held from 22-26 February 2016 in Vienna;
- An International Conference on Effective Nuclear Regulatory Systems: Sustaining Improvements Globally would be held from 11-15 April 2016 in Vienna;
- An International Conference on Advancing the Global Implementation of Decommissioning and Environmental Remediation Programme from 23-27 May in Madrid, Spain.

Mr Lentijo concluded by wishing all participants a very productive session.
1.2  Introductions, Adoption of the Agenda, Approval of the 37th CSS meeting report

Ms D. Drábová, Chair of the Commission, welcomed all participants. She introduced as new members of the Commission Mr P. Tiippana from Finland, Mr S. Bhardwaj from India, Ms A. Heinrich as the Chair of the new Emergency Preparedness and Response Standards Committee (EPReSC), and Mr B. Dal as the new Chair of the Nuclear Security Guidance Committee (NSGC). She apologized in advance that she would be unable to remain at the meeting for its entire duration, and indicated that she would handover to an acting Chair in her absence (the acting Chair was Mr R. Jammal on 12 November and Mr J.-L. Lachaume on 13 November).

A complete list of participants is included as Annex I.

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

Ms D. Drábová informed the Commission that the draft report of the 37th CSS meeting had been made available. Comments had been received from Korea and these had been addressed.

The report of the 37th CSS meeting was approved, subject to these comments, and would be uploaded to the CSS web site [Annex III, Action 38.01].

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 37th Meeting

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 four safety standards had been published since the last CSS meeting (SSG-32, SSG-35, SSG-37 and SSG-38) and provided details on 11 further safety standards, endorsed by the Commission, that 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.

Mr Delattre also provided information on the response to the few outstanding actions from 35th and 36th CSS meetings and the actions from the 37th CSS meeting (see Annex IX).

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

2.1 Nuclear Safety Standards Committee (NUSSC)

Mr F. Feron, NUSSC Chair, reported on the 38th NUSSC meeting, which had been held in part jointly with RASSC and WASSC. NUSSC had approved three standards for submission to the CSS (DS360, DS381 and DS460), five standards for submission to Member States for comment (DS472, DS473, DS478, DS483 and DS485) and one DPP (DS449). NUSSC had also cleared drafts and DPPs of the Nuclear Security Series (NST002, NST023 and NST009). NUSSC had held extensive discussion on DS456, the revision of GS-R-3, but in view of the large number of comments provided before the meeting, had been unable to approve a final version; instead a working group had been established to help in achieving consensus, and DS456 would be considered at the next round of Committee meetings. NUSSC had also been informed about technical editorial changes to DS462 that had been

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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
proposed during preparation for publishing, and requested that in future such review be carried out earlier in the process. Mr Feron’s presentation is available on the CSS web site.

In the discussion that followed, several members noted that DS456 was a most important standard and requested that the necessary time be taken to ensure both consensus and quality of the text. Mr Williams, Chair of WASSC, requested members to ensure that national comments on DS456 be fed through NUSSC representatives, to ensure that DS456 is as good as possible. On the matter of the technical editorial changes to DS462, several members thanked the Secretariat for being so transparent in this respect, and requested that in the future the technical editorial review be carried out before the approval by the CSS and the Board of Governors and any further changes after approval be limited.

2.2 Waste Safety Standards Committee (WASSC)

Mr G. Williams, WASSC Chair, provided a presentation on both the 39th and 40th WASSC meetings, which had been held in part jointly with NUSSC and RASSC. Over the two meetings, WASSC had approved 11 standards for submission to the CSS (DS360, DS381, DS427, DS432, DS442, DS452, DS454, DS455, DS456, DS460, DS476), eight standards for submission to Member States for comment (DS403, DS472, DS473, DS478, DS479, DS483, DS485, DS486) and two DPPs (DS449, DS495). WASSC had also cleared drafts and DPPs of the Nuclear Security Series (NST002, NST009, NST020, NST023, NST048, NST057). WASSC had also received progress reports on a number of other drafts in progress and had held a topical session on remediation strategies after an emergency. Mr Williams’ presentation is available on the CSS web site.

The discussion that followed noted the need for clear guidance on remediation, including the concept of ‘conditional clearance’ after an emergency, and the importance of communication with decision makers in this respect.

2.3 Radiation Safety Standards Committee (RASSC)

Mr G. Massera, RASSC Chair, provided a presentation on the 38th and 39th RASSC meetings, which had been held in part jointly with NUSSC and WASSC. Over the two meetings, RASSC had approved eight standards for submission to CSS (DS360, DS381, DS399, DS427, DS432, DS442, DS455, DS460), five standards for submission to Member States for comment (DS471, DS472, DS473, DS478, DS483) and one DPP (DS449). RASSC had also cleared drafts and DPPs of the Nuclear Security Series (NST002, NST004, NST009, NST023). The DPP for a Safety Report on radiation protection in veterinary medicine had also been discussed and the content agreed. Discussions had also been held on attribution of health effects and inference of risk and on food, drinking water and non-food commodities.

Mr I. Lund praised the balanced approach found in the draft RASSC paper on individual susceptibility to radiation and looked forward to its submission to the CSS. Mr M. Pinak reported on a forthcoming TECDOC providing guidance on setting reference levels for food and drinking water; this TECDOC summarized the existing standards that had been developed by the FAO, IAEA and WHO. Mr K. Shimomura reported, for the information of members, on a recent OECD/NEA document providing a Framework for the Post-accident Management of Contaminated Food, which had fed into the TECDOC, and also announced the forthcoming NEA International Workshop on the Fukushima Dialogue Initiative, to be held in Japan in December 2015.

2.4 Transport Safety Standards Committee (TRANSSC)

Mr P. Hinrichsen, Chair of TRANSSC, reported on the extraordinary TRANSSC meeting held in September 2015, at which four working groups had considered the 150 proposals for change that had been received from Member States, for both SSR-6 and SSG-26. The outcomes of this meeting were then addressed at the 31st TRANSSC meeting, and the proposed changes were evaluated according to six principles. The decision reached by TRANSSC was to initiate a revision of both SSR-6 and SSG-26, the associated Advisory Material. The expectation was that the revised versions would be published in 2018. TRANSSC had approved six draft standards for submission to CSS (DS419,
DS420, DS432, DS455, DS456 and DS476) and two draft standards for submission to Member States for comment (DS479 and DS486). Mr Hinrichsen also reported on various TRANSSC working groups that are considering matters such as the updating of A1 and A2 values, fissile exception and freight containers; he also indicated that members of RASSC would be welcome to become involved with the A1/A2 working group.

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

Mr Dal, Chair of NSGC, provided information on the 7th and 8th NSGC meetings. The second term of NSGC had commenced in 2015, with Terms of Reference that were largely unchanged, and an increased membership. Over the course of the two meetings, NSGC had reviewed and approved drafts NST002, NST004, NST009, NST020, NST023, NST026, NST033, NST036, NST044 and NST048, and DPPs NST053, NST054, NST055 and NST056. All interface documents in the Safety Standards Series (DS360, DS381, DS460, DS478, DS403, DS472, DS473, DS483, DS449, DS456, DS476, DS455, DS452, DS454, DS432, DS471, DS486, DS494, DS495), which were at various stages of approval, had been cleared too, with some specific and general comments. NSGC had also considered issues relating to the inclusion of security provisions in the UN Orange Book and improvements in the handling of interface documents.

Several CSS members requested that DS419 and DS420, which both provide guidance for ‘small users’, be revisited, to consider whether they could in fact be extended to cover both safety measures and security measures. On the question of response to events, several members recommended that the draft Technical Guidance on contingency/response plans for security be extended to cover guidance on emergency preparedness and response for all events.

2.6 Establishment of the Emergency Preparedness and Response Standards Committee (EPReSC)

Ms Heinrich, Chair of EPReSC, made a presentation on EPReSC, which had been established by the DDG-NS in June 2015 and had Terms of Reference standardized with those of the other standards Committees. Receipt of nominations was still underway and the first meeting would be held from 30 November to 2 December 2015. The purpose of that meeting was to provide EPReSC with the information and tools needed to do their work and to discuss how to operationalize the Terms of Reference, rather than to approve drafts. Ms Heinrich also listed the drafts that EPReSC would review, and noted that RASSC had supported the proposal that EPReSC would be the lead Committee for DS474, the draft Safety Guide on Arrangements for the Termination of a Nuclear or Radiological Emergency (Step 5) and DS475, the draft Safety Guide on Arrangements for Public Communications in Preparedness and Response to a Nuclear or Radiological Emergency (Step 5).

A discussion on priorities for EPReSC followed, and Mr Delattre noted that certain priorities were set by the CSS, while others arose following the Fukushima Daichi accident; in addition, now that GSR Part 7 had been issued it would be opportune to review the associated Safety Guides. He also noted that the list of drafts that EPReSC would review had been recommended by the Coordination Committee and endorsed by the Interface Group, and that, to avoid unnecessary delays, EPReSC would not review drafts towards the end of the process.

Mr R. Jammal reinforced the importance of avoiding delays, and requested that the Secretariat report to the CSS if any challenges were found, now following the establishment of EPReSC, to meeting the original schedule established for the review and approval of each individual standard. Mr M. Foy requested EPReSC to establish criteria and principles against which priorities would be set. Mr Feron cautioned that the Secretariat’s resources be taken into account in the setting of priorities. Ms Heinrich noted that she would be in a better position to provide detailed answers relating to priorities and timelines after the first meeting of EPReSC.

Mr Lund emphasized the need for the broadest possible review of drafts, to enhance their quality, particularly for a cross-cutting area such as emergency preparedness and response.
Ms Heinrich confirmed that EPRREG would cease to exist with the establishment of EPRESC; the Terms of Reference of EPRESC would provide the necessary flexibility to continue the momentum of EPRREG’s work in certain areas.

The Commission confirmed that EPRESC should be the lead Committee for DS474 and DS475.

2.7 Summary of the Meeting of the Chairs held on 10 and 11 November before the CSS meeting

Mr Delattre provided a summary of the meeting of the seven Chairs of the Committees and the Commission, and presented an overview of the main topics:

- Cooperation with the new Safety Standards Committee on Emergency Preparedness and Response (EPReSC): it had been agreed that drafts that were already well underway would not be delayed, and that the current good practice of joint sessions of Committees would be extended to EPReSC as the need arose.

- The revised versions of SPESS A, B and C and the new SPESS E document were presented (see agenda item 6.2).

- The presentations from the Committees Chairs to the CSS would now focus only on those standards for which that Committee was the lead.

- The Interface Group would be reconstituted, and new representatives from NSGC were necessary. Mr Lentijo indicated that he considered that it would be more flexible and less unwieldy to reduce the formal membership of the Interface Group to the Chairs of each of the six Committees. Mr Dal reported that NSGC had established a working group to consider interfaces and to support and provide advice the NSGC representation on the Interface Group.

- The changes resulting from the technical editorial review of DS462 had been addressed; furthermore the process of reaching a final draft of DS456 had been considered, with the aim of learning from this (see agenda item 3.2).

- A discussion on the definition of ‘good practices’ for the purposes of the Joint Convention and the Convention on Nuclear Safety had concluded that such a definition would have no impact on the standards; however, good practices identified at Convention Review Meetings could be valuable input for revisions of safety standards.

3. Review/revision of IAEA Safety Standards in light of the Fukushima Daiichi accident

3.1 Review of GSR Part 3 on Radiation Protection and Safety of Radiation Sources

Mr Massera reported that RASSC had requested the Inter Agency Committee on Radiation Safety (IACRS), which includes all cosponsoring international organizations of GSR Part 3, to make a proposal as to how this issue should be approached.

Mr Massera reported that a two-day IAEA Workshop on ‘Addressing Challenges in Radiation Protection: Implementation of the International Basic Safety Standards’ was held in November 2015. The Workshop covered implementation of the radiation protection requirements in the BSS in areas of remediation of legacy sites, contaminated commodities in international trade, and optimisation of protection and safety in activities involving occupational exposure to NORM. Proposals from the Workshop will feed into the IACRS review.

Mr Massera also mentioned the proposed revision of the Safety Guide: ‘Application of the Concepts of Exclusion, Exemption and Clearance’ (RS-G-1.7). The proposal for review will be discussed at next RASSC and WASSC meetings; proposal to provide guidance on the clearance process including ‘conditional clearance’, and also to address non-food commodities in international trade.
3.2 Progress report on GSR Part 2 on Leadership and Management System for Safety

Ms H. Rycraft reported on the progress in the revision of GS-R-3 (DS456); her presentation is available on the CSS web site. A working group had been convened to prepare the most recent draft, which also included comments from other Member States. The changes were mainly for simplification: a new section 6 on measurement, assessment and improvement (similar to GS-R-3), a merger of two requirements and movement of some elements to future Safety Guides, and a review of the graded approach as a key concept in the text.

Mr Lund appreciated the efforts that had been made to improve the text. Mr A. Ugayama noted that Japan had already used early drafts of DS456 in its revised regulations, and that in addition it was important for Japan to also review and revise GS-G-3.1 and GS-G-3.5 in line with GSR Part 2 in a timely manner.

3.3 Progress report on the revision of the other Specific Safety Requirements (NS-R-4 and NS-R-5)

Mr A. Shokr provided a progress report, which is available on the CSS web site. The revision of NS-R-4 (DS476) had been approved at the most recent Committee meetings, and it was expected that it would be submitted to the CSS for endorsement in 2016. The revision of NS-R-5 (DS478) had been approved for submission to Member States for comment, and it was expected that it would be submitted to the Committees for approval in 2016.

3.4 Progress report on the review of Safety Guides

Mr Delattre showed a slide indicating the prioritization of the review/revision of Safety Guides, and indicated some of the most recent progress made. Certain Safety Guides, indicated in red colour, were to be reviewed on the basis of the Vienna Declaration. It was noted that there was now a new template for Articles 17 (Siring) and 18 (Design and construction) of the Convention on Nuclear Safety, which referred to the revised Requirements, and which Contracting Parties could use on a voluntary basis. Mr Jammal noted that the next CSS term would need to be informed of the priorities among Safety Guides.

3.5 Future activities

Mr Delattre requested CSS members for suggestions of further work relating to the Fukushima Daiichi accident, beyond that covered under agenda items 3.1 to 3.4. Several members suggested that there may be a gap in the standards with respect to the recovery phase post emergency, and it was noted that the drafting of DS474 and DS468 would be an opportunity to address that gap.

4. Approval of draft publications and DPPs

4.1 Draft Safety Guide DS360 on Safety of Reprocessing Facilities

Mr Gater presented the draft Safety Guide and indicated its background, objectives and structure. Comments had been received from India, Japan and Korea and had been resolved with the commentators. Mr Shokr noted that this draft Safety Guide, and the subsequent one on the agenda (DS381), had been put on hold by the CSS until the related Requirements were issued in 2014. Mr Gater’s presentation is available on the CSS web site.

The Commission endorsed the draft for publication.

4.2 Draft Safety Guide DS381 on Safety of Fuel Cycle Research and Development Facilities

Mr Gater presented the draft Safety Guide and indicated its background, objectives and structure. Comments had been received from India and Korea and had been resolved with the commentators. Mr Gater’s presentation is available on the CSS web site.
The Commission endorsed the draft for publication.

4.3 Draft Safety Guide DS460 on Communication and Consultation with Interested Parties by the Regulatory Body

Mr J.-R. Jubin presented the draft Safety Guide and indicated its background, scope and structure. He also reminded members that although the Safety Guide did not cover communication in an emergency, another draft Safety Guide, DS475, did address this issue. No comments had been received by CSS members in advance of the meeting. However, a few comments had been submitted by Australia at the meeting.

Mr Williams confirmed Australia’s strong support for the draft Safety Guide and apologized for the lateness of the comments, which were intended to clarify the distinction between the regulatory body and the proponent of the activity. He stepped through each comment in turn and these were agreed by the Commission. Mr Liguang Hu also indicated China’s strong support for the draft Safety Guide.

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

4.4 Draft DPP DS449 on Format and Content of the Safety Analysis Report for Nuclear Power Plants

Mr P. Villalibre presented the draft DPP, which was for a revision of Safety Guide GS-G-4.1, issued in 2004. He set out the background, objectives and scope, and summarized the comments that had been provided by NUSSC, RASSC, WASSC and NSGC. CSS comments had been received from India and Korea, and the proposed resolutions had been accepted. Mr Villalibre’s presentation is available on the CSS web site.

Mr Tiippana supported the proposal to add an annex listing design upgrades during the lifetime of the power plant, but noted that proposals for a design upgrade were unlikely to come from an IRRS mission. He also agreed with the resolution proposed for those comments, which indicates that it is planned to cover those aspects mainly in the General Considerations, in the Chapter 18 about Human Factors Engineering and in one annex related to the Review and Update of the Safety Analysis Report.

The Commission approved the DPP.

4.5 Draft DPP DS493 on Structure and Information to be Included in a Package Design Safety Report (PDSR) for the Transport of Radioactive Material

Ms N. Capadona presented the draft DPP. She set out the background, scope, structure and schedule of the proposed Safety Guide, and indicated that comments had been received from India and Korea, and that most of them had been accepted. Ms Capadona’s presentation is available on the CSS web site.

Mr Hinrichsen addressed the proposed introduction of the concept of a ‘large surface contaminated object’ in transport, which would have the advantage of avoiding the connotations associated with transport by special arrangement, which is currently used for the transport of such items. Mr Jammal welcomed the use by Ms Capadona of the table of resolution of comments as a template, and requested that this be used in future presentations to the CSS [Annex III, Action 38.02].

The Commission approved the DPP.

5. DPPs for draft Nuclear Security Series publications for information

5.1 Draft NST002 on Regulations and Associated Administrative Measures for Nuclear Security
Ms R. Evans presented the draft Implementing Guide for information. She set out some of the background to the development of this draft Implementing Guide, and summarized some of the earlier discussion that had concluded that the Nuclear Security Series was indeed the appropriate series for publication of this guidance. Ms Evans’s presentation is available on the CSS web site.

5.2 Draft NST023 on Physical Protection of Nuclear Material and Nuclear Facilities

Mr M. Khaliq presented the draft Implementing Guide for information. He set out the objective and structure of this draft Implementing Guide and summarized its status. One CSS member had requested that a clause (3.24) be deleted that might confuse the matter of the operator’s prime responsibility for safety. It was clarified that nothing is wrong with the existing text which received close attention by Member States during its development. Under a prescriptive approach, the State prescribes the measures and the operator has the responsibility for the effectiveness of the individual physical protection measures when operating and maintaining the physical protection system. Mr Khaliq’s presentation is available on the CSS web site.

6. Policy discussion

6.1 Progress report on the development of an IT platform for the future review, revision and publication of the safety standards

Mr Delattre provided an extensive presentation on the current status of the IT platform. He reminded the CSS of the main objectives of the system, and its three main components: a knowledge and content management system, an online user interface (called NSS-OUI), and an electronically supported review, revision and approval process management system. He outlined the central role of metadata, and elaborated on the development of an ontology for the standards, and the difference between explicit and implicit relationships in the requirements and guidance. He also set out the next steps in the project: input of the Safety Glossary and its integration with PoolParty for semi-automatic tagging, establishment of an advanced feedback collection and retrieval system, the step by step input of existing standards and Nuclear Security Series publications, and the need for ‘overall recommendations’ for SSR-6 and for the Nuclear Security Series to be drawn up to enable these also to be searched in a useful manner. Finally he provided a demonstration of the system, including the browse and enhanced search functions. The presentation by Mr Delattre is available on the CSS web site.

In the discussion that followed, Mr Delattre noted that the new system was a tool that would allow for the focused topic by topic revision of standards, rather than book by book revision, if that was what the Committees and Commission determined to be appropriate. He expected, given the history of the standards and the need for stability, that the Requirements would likely be revised by topic, namely the process used for DS462, whereas most Safety Guides, for the time being, might continue to be revised as whole books.

The reliability of the data was ensured by the existence of a backup server located at a distance from the main server, and by its having met the Agency’s standard IT security requirements. In addition, a single individual would be responsible for establishing the metadata, which would ensure that it was harmonized for all the content of the system.

While the priority was to include publications of the Safety Standards Series and Nuclear Security Series, and to map the relationships between them, other Agency series, such as Safety Reports and TECDOCs, could also be included in the system, particularly those that support the implementation of a standard. However, it would be clarified within the system that such other publications are not consensus texts.

The IT system could also eventually be used to support management of the process flow, through the feedback collection module, which was currently under testing. Similarly, it might later be used to support the commenting phase, including the collection and provision of national feedback; however, such ideas were still at the concept level.
6.2 Revision of the SPESS series of documents

Mr Delattre reminded the Commission that SPESS contains only policy that has already been approved; the purpose of a revision of SPESS is to update it with matters that had previously been decided upon, such as the policy paper on quantitative and qualitative criteria within standards. Mr Delattre led the Commission through the most recent updates in SPESS A, the top document on policy and strategy; SPESS B, which sets out the step by step process; SPESS C, the guidance for drafters; and the newly established SPESS E, which describes the IT system at a strategic level.

The Commission requested that the revised versions of SPESS A, B and C and the new SPESS E document be finalized and posted on the Safety Standards web page. [Annex III, Action 38.03].

6.3 Finalization of the end of term report

A draft of the end of term report had been posted on the CSS web site in advance of the meeting. This report was an update of the mid-term report, which had been agreed at the 34th CSS meeting. Mr Delattre presented the draft report and drew particular attention to Section 3, which set out proposed recommendations for the sixth term of the CSS.

There followed a broad ranging discussion, and a draft list of recommendations was prepared. The members of the CSS then commented on and refined the list, and the final outcome at the end of the CSS meeting was the following:

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 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 radiation source users consistent with the Code of Conduct on the Safety and Security of Radioactive Sources.
   - Consolidating safety standards and security recommendations for transport of radiation sources and nuclear material consistent with United Nations standards.
   - Continue developing guidance on preparedness for response to nuclear and radiological emergencies irrespective of their initiating cause taking into account both safety and security aspects.
   - Progressing on a common glossary.

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 Director General 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) Undertake a review of the findings in the IAEA’s report on the Fukushima Daiichi accident and confirm those areas that the safety committees need to continue to focus on, and progress

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2 This first list was further improved after consideration of the CSS comments collected in November and December 2015
the development of new standards and guidance to address the remaining gaps. These are expected to include, for example, post-emergency recovery procedures, and criteria for food, drinking water, non-food commodities and methodology for their development.

4) Develop principles for guiding the prioritization for safety standards development with consideration of operating experience, regulatory experience and results of safety related research.

5) 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.

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

7) Expedite 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 health effects incurred from exposure characterized by very low doses and dose rates.

9) Develop input for the Nuclear Security Series on the terms ‘unacceptable radiological consequences’ and ‘high radiological consequences’, which are used as criteria for implementing specific recommendations.

10) Continue the joint MTCD/NS efforts to streamline the approval and publication process and significantly enhance its effectiveness.

11) Ensure transparency for both the CSS and the Board of Governors, of the editorial reviews of consensus publications, provide the results of such reviews to the CSS at the latest before final approval of the standards and take steps to limit the need for further changes to approved text.

12) Assist the DDG-NS for the implementation of its nuclear safety strategy and programme of work as requested in the Nuclear Safety Resolution GC(59)/RES/9 approved at GC(59), to guide the transition after the IAEA Action Plan on Nuclear Safety.

The Commission requested that the draft end of term report with the section 3 on recommendations for the next term be submitted for final comments and then sent to the CSS Chair for finalization. [Annex III, Action 38.04].

7 Use of IAEA Safety Standards in Member States

Mr T. Fuketa from the Nuclear Regulation Authority (NRA) provided a presentation on the use of the standards in Japan; the presentation is available on the CSS web site. Mr Fuketa covered the amendment of the Basic Act for Atomic Energy, the new regulatory requirements in Japan, which take account of SSR-2/1 and international discussions, the self-assessment for IRRS, and the intention to continue to use the IAEA safety standards as valuable inputs for continuous improvement in Japan.

In the broad discussion that followed, Mr Fuketa mentioned several of the challenges currently being faced by the NRA:
• The application of the enhanced safety framework in a step by step manner to the full suite of regulated activities, for example in enhancements in the inspection programme, and in ensuring that lessons from the Fukushima Daiichi accident become institutional memory.

• The application of international guidance in the specific circumstances following the Fukushima Daiichi accident, for example in determining effective reference levels for decontamination, criteria for foodstuffs, and the application of backfitting rules.

• Dealing with uncertainties in the probabilistic risk assessment for external hazards.

Mr Hu from the National Nuclear Safety Administration provided a presentation on the use of IAEA safety standards in China. He summarized the nuclear safety legal system in China, and the relation between Chinese nuclear safety regulations and the IAEA safety standards, and also addressed the interface between safety and security. He noted that the IAEA safety standards had been adopted with light modification or referenced deeply in the establishment of China’s nuclear safety legal system, and that China intended to keep in line with the IAEA safety standards as it continued to develop its nuclear regulations. Mr Hu’s presentation is on the CSS web site.

In the discussion that followed, Mr Hu mentioned the following

• The texts of the Nuclear Security Series are not used directly, but are valued as a reference.

• All regulations have been printed and made available to the public, and are increasingly being made available online.

• China’s regulation on the design of nuclear power plants was issued in 2004, and was in line with NS-R-1. It had also been reviewed following the Fukushima Daiichi accident. As revision of the IAEA standard was underway, it is still under discussion as to whether China’s regulation will be updated to bring it into line with SSR-2/1 or its revision.

• The new nuclear safety act had been drafted in 2013 and was reviewed by the IAEA in 2014. It was hoped that it might be issued in 2016. The new act would address gaps in the existing laws, such as relating to independence of the regulator, public involvement and transparency in the provision of information.

• An IRRS mission to China had been conducted in 2010 and a follow-up mission was scheduled for 2016.

Mr Hinrichsen from the National Nuclear Regulator provided a presentation on the use of IAEA safety standards in South Africa. He summarized South Africa’s nuclear energy policy and the National Nuclear Regulator Act, which came into force in 2000. He set out the organizational structure of the regulatory body and listed the regulated facilities in South Africa. He also explained how nuclear security is regulated in South Africa and finally explained the regulatory framework, including regulations and guidance documents. Mr Hinrichsen’s presentation is on the CSS web site. Following the general question and answer session that followed the presentation, Mr Hinrichsen offered to put members in touch with the relevant individuals in South Africa if they had specific questions on matters outside his direct area of expertise.

Mr Shimomura distributed a document setting out highlights of the activities of the OECD Nuclear Energy Agency in the areas of safety and regulation. The document is available on the CSS web site.
8. Miscellaneous. Report of the meeting, Date of the next meeting

Mr Delattre informed the Commission of the dates proposed for holding the next meetings, namely in the week from 4 to 8 April 2016 and in the week from 7 to 11 November 2016.

Mr Delattre also indicated that a draft list of actions resulting from the 38th CSS meeting would be provided for comment to the CSS members [Annex III, Action 38.05] and that the draft report of the 38th CSS meeting would be posted for comment to the CSS web site [Annex III, Action 38.06]. Approval of the report of this meeting would be requested by email, as the fifth term of the CSS drew to a close at the end of 2015. Mr Delattre informed the Commission that all presentations made at the 38th CSS meeting would be posted on the CSS web site [Annex III, Action 38.07].

Mr Lentijo closed the meeting by expressing his thanks and appreciation to the members of the Commission for their work, and Mr Lachaume, acting Chair, particularly thanked Mr Woodhouse for his support of the CSS meetings over the previous years.
ANNEX I
PARTICIPATION AT THE 38th CSS MEETING

The Commission

A.J. González, Argentina (sent apologies – unable to attend; represented by Mr Massera)
C.-M. Larsson, Australia (sent apologies – unable to attend; represented by Mr Williams)
J.-P. Samain, Belgium
I.P. Salati de Almeida, Brazil (sent apologies – unable to attend)
R. Jammal (acting Chair), Canada
Jun Yu, China (sent apologies – unable to attend; represented by Mr Hu)
D. Drábová (Chair), Czech Republic
P. Tiippana, Finland
J.-L. Lachaine (acting Chair), France
A. Vorwerk, Germany (sent apologies – unable to attend; represented by Mr Weidenbrück)
S. A. Bhardjway, India (sent apologies – unable to attend; represented by Mr Kuchibotla)
M. Markovits, Israel
T. Fuketa, Japan
Y. H. Kim, Republic of Korea (sent apologies – unable to attend; represented by Mr Bae)
M. Demčenko, Lithuania (sent apologies – unable to attend)
M. Mohd Ali, Malaysia
I. Soufi, Morocco (sent apologies – unable to attend)
M. A. Habib, Pakistan
A. Ferapontov, Russian Federation (sent apologies – unable to attend; represented by Mr Khamaza)
C.O. Phillips, South Africa (sent apologies – unable to attend; represented by Mr Hinrichsen)
A. Gurgui Ferrer, Spain (sent apologies – unable to attend; represented by Mr Dies)
I. Lund, Sweden
W. Travers, United Arab Emirates (sent apologies – unable to attend)
A. Hall, United Kingdom (sent apologies – unable to attend; represented by Mr Foy)
M. Weber, United States of America

Observers

R. Awad, AdSec
M. Garribba, EC (sent apologies – unable to attend; represented by Mr Alehno)
C. Cousins, ICRP (sent apologies – unable to attend)
R. Meserve, INSAG (sent apologies – unable to attend)
K. Shimomura, OECD NEA

Chairpersons of the Review Committees

Ms Heinrich, EPReSC
B. Dal, NSGC
F. Feron, NUSSC
G. Massera, RASSC
P. J. Hinrichsen, TRANSSC
G. Williams, WASSC

Representatives and associated experts
Mr Bae, Mr Bringel, Ms Collet i Campo, Mr Dies, Ms Forest, Mr Foy, Mr Hu, Ms Jones, Mr Khamaza, Ms Kim, Mr Konoplev, Mr Kuchibotla, Mr Webster, Mr Ugayama

IAEA Staff Members
P. Johnston, Director, Division of Radiation, Transport and Waste Safety (NSRW)
G. Rzentkowski, Director, Division of Nuclear Installation Safety (NSNI)
K. Mrabit, Director, Division of Nuclear Security (NSNS)
E. Buglova, Head, Incident and Emergency Centre (IEC)
P. Woodhouse, Head, Safety and Security Coordination Section (SSCS)
G. Caruso, Special Coordinator, Nuclear Safety Action Team (NSAT)

A. Al Khatibeh, T. Andrews, O. Coman, M. Khaliq, Daming Liu, A. Nicie, A. Orrell, M. Pinak, S. Purvis, A. Shokr, C. Spitzer, P. Tarren

N. Capadona, R. Evans, R. Gater, J.-R. Jubin, H. Rycraft, P. Villalibre

Coordinators of review Committees and of the Commission on Safety Standards
M. Svab, Regulatory Activities Section (NSNI), NUSSC
G. Siraky, Waste and Environmental Safety Section (NSRW), WASSC
S. Whittingham, Regulatory Infrastructure and Transport Safety Section (NSRW), TRANSSC
T. Colgan, Radiation Safety and Monitoring Section (NSRW), RASSC
I. Barraclough, Safety and Security Coordination Section (SSCS), NSGC
J. Lafortune, Incident and Emergency Centre (IEC), EPReSC
D. Delattre, Scientific Secretary of the CSS, Safety and Security Coordination Section
ANNEX II

AGENDA

Thirty-eighth Meeting of the
COMMISSION ON SAFETY STANDARDS
11-13 November 2015

1. Opening Session

1.1 Opening of the Meeting (14:00)

1.2 Introductions, Adoption of the Agenda, Approval of the 36th CSS meeting report; D. Drabova

1.3 Administrative arrangements for the meeting, Status on the main topics for the 5th CSS term, Status of the endorsed Standards and Response actions from the 37th Meeting and remaining actions from previous meetings; D. Delattre

2. Reports from the Safety Standards Committees and end of term report from the Nuclear Security Guidance Committee

2.1 Nuclear Safety Standards Committee, F. Feron, Chairman/M. Svab, Scientific Secretary

2.2 Waste Safety Standards Committee, G. Williams, Chairman/G. Siraky, Scientific Secretary

2.3 Radiation Safety Standards Committee, G. Massera, Chairman/T. Colgan, Scientific Secretary

2.4 Transport Safety Standards Committee, P. Hinrichsen, Chairman/S. Whittingham, Scientific Secretary

2.5 Information on the meetings of the Nuclear Security Guidance Committee, B. Dal, Chairman/I. Barraclough, Scientific Secretary

2.6 Establishment of the Emergency Preparedness and Response Standards Committee (EPReSC), A. Heinrich, Chairperson/J.-F. Lafortune, Scientific Secretary

2.6 Summary of the meeting of the Chairs held on 10 and 11 November 2015 before the CSS meeting, D. Delattre

3. Review/revision of IAEA Safety Standards in light of the Fukushima Daiichi accident

3.1 Review of GSR Part 3 on Radiation Protection and Safety of Radiation Sources; G. Massera

3.2 Progress report on GSR Part 2 on Leadership and Management System for Safety; H. Rycraft

3.3 Progress report on the revision of the other Specific Safety Requirements (NS-R-4 and NS-R-5); A. Shokr

3.4 Progress report on the review of safety guides; D. Delattre

3.5 Future activities

4. Approval of draft publications and DPPs

4.01 Draft Safety Guide DS360 on Safety of Reprocessing Facilities; R. Gater

4.02 Draft Safety Guide DS381 on Safety of Fuel Cycle Research and Development Facilities; R. Gater

4.03 Draft Safety Guide DS460 on Communication and Consultation with Interested Parties by the Regulatory Body; J.-R. Jubin

4.04 Draft DPP DS449 on Format and Content of the Safety Analysis Report for Nuclear Power Plants; P. Villalibre

4.05 Draft DPP DS493 on Structure and Information to be Included in a Package Design Safety
5. **DPPs and draft Nuclear Security Series publications for information**

5.1 Draft Implementing Guide NST002 on Regulations and Associated Administrative Measures for Nuclear Security; *R. Evans*

5.2 Draft Implementing Guide NST023 on Physical Protection of Nuclear Material and Nuclear Facilities; *M. Khaliq*

6. **Policy discussion**

6.1 Progress report on the development of an IT platform for the future review, revision and publication of the safety standards; *D. Delattre*

6.2 Revision of the SPESS series of documents; *D. Delattre*

6.3 Finalization of the end of term report, including recommendations for the sixth term; *D. Delattre*

7. **Use of IAEA Safety Standards in Member States**

8. **Miscellaneous.** Report of the meeting, Date of the next meetings (week from 4 to 8 April and week from 7 to 11 November 2016)
ANNEX III

ACTIONS ARISING FROM THE 38th MEETING OF THE COMMISSION

38.01 The final report of the 37th CSS meeting to be uploaded on the CSS web page. [Action: Secretariat, CSS Scientific Secretary]. Done

38.02 The presentation used for the DPP DS493 to be used as a template for future presentations of drafts and DPPs to the Commission [Action: Secretariat, CSS Scientific Secretary]. Done

38.03 The revised versions of SPESS A, B and C and the new SPESS E document to be finalized and posted on the Safety Standards web page. [Action: Secretariat, CSS Scientific Secretary].

38.04 The draft end of term report with the section 3 on recommendations for the next term to be submitted for final comments and then sent to the CSS Chair for finalization. [Action: Secretariat, CSS Scientific Secretary, CSS members and CSS Chair]. Done

38.05 A list of actions resulting from the 38th CSS meeting to be provided to the CSS members for comment. [Action: Secretariat, CSS Scientific Secretary]. This list

38.06 The draft report of the 38th CSS meeting to be posted for comment and finalization by the CSS members of the fifth CSS term. [Action: Secretariat, CSS Scientific Secretary]. This report

38.07 The presentations made at the 38th CSS meeting to be uploaded on the CSS web page. [Action: Secretariat, CSS Scientific Secretary]. Done
## ANNEX IV
### STATUS OF MAIN TOPICS OF THE 4TH CSS TERM

<table>
<thead>
<tr>
<th>#</th>
<th>Main topics</th>
<th>Reference set of SG</th>
<th>Status/action</th>
</tr>
</thead>
</table>
| 3  | Guidance and assistance related to the new applications of radiation sources | Items 68 to 76      | DS409 published (SSG-8)  
DS408 published (SSG-11)  
DS419 Step 11 after MS consultation  
DS420 Step 11 after MS consultation  
DS434 for a safety guide on radioisotope production facilities being drafted. DPP approved by the CSS  
DS470 on Radiation Sources in Research and Education and DS471 on X-ray Generators and Sources Used for Inspection Purposes at Step 7  
DS458 Radiation Safety and Regulatory Control for Consumer Products approved for publication |
| 6  | Question on how best to design and implement safety measures and security measures in an integrated manner | NA                  | Joint AdSec/CSS session in April 2009 and joint AdSec/CSS Task Force established in June 2009  
Final Joint AdSec CSS Session in November 2011  
NSGC established, first meeting in June 2012  
Interface Group first meeting in September 2012  
Revision of SPESS C issued  
New NSGC term started this year |
| 7  | Assistance and additional safety guidance to countries dealing with expanded uranium exploration and mining | Item 83             | DS 421: published (SSg-32)  
DPP for DS459 approved by the CSS |
| 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 Step 11                                                                                                                                 |
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): Close to finalization. DS456 (GSR Part 2) submitted to SSCs for final approval.

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 Step 5), NS-R-4 (DS476 Step 11) and NS-R-5 (DS478 at Step 8).

3. Enhancing the feedback process: Used for the above activities. Starting the test phase. Presentation on the update at this meeting (item 6.1) and SPESS E (item 6.2).

4. Exposure to radon: SSG-32 published

5. Medical exposure: DS399 STEP 11 approved by Committees, before CSS.

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

7. Harmonization of exemption, clearance criteria and other radionuclide specific criteria: DS458 (SSG-36) being published and other topics still to be initiated.

8. NORM related issues: DS459 being drafted.

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

10. Knowledge management: DS456 on the revision of GS-R-3 (STEP 11), and amendment of GSR-Part 4 (DS462 being published) + knowledge management for regulatory bodies in DS473.


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: Difficulty to identify a precise indicator. Presentation from UAE at the 33rd CSS meeting

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 8.
ANNEX VI
CURRENT SAFETY STANDARDS
[status on 20 November 2015]

A. Safety Fundamentals


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

GSR-R-3 The Management System for Facilities and Activities (2006) [ACEFRS]
GSR Part 3 Radiation Protection and Safety of Radiation Sources –International Basic Safety Standards (2014) [ACE]
GSR Part 4 Safety Assessment for Facilities and Activities (2009) [ACEFRS]
GSR Part 5 Predisposal Management of Radioactive Waste (2009) [ACEFRS]
GSR Part 6 Decommissioning of Facilities (2014) [ER]

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-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-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]
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-1.7 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) [ES]
RS-G-1.9 Categorization of Radioactive Sources (2005) [ACEFRS]

3 A=available in Arabic; C=available in Chinese; E=available in English; F=available in French; R=available in Russian; S=available in Spanish
C. Specific Safety Standards (applicable to specified facilities and activities)

C.1. Nuclear Power Plants

SSR-2/1 Safety of Nuclear Power Plants: Design (2012) [ACEFRS]
SSR-2/2 Safety of Nuclear Power Plants: Commissioning and Operation (2011) [ACEFRS]
NS-R-3 Site Evaluation for Nuclear Installations (2003) [ACEFRS]

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) [CEF]
GS-G-4.1 The Management System for Nuclear Installations (2009) [ER]

NS-G-1.1 Software for Computer Based Systems Important to Safety in Nuclear Power Plants (2000) (under revision)[CEF]
NS-G-1.3 Instrumentation and Control Systems Important to Safety in Nuclear Power Plants (2002) (under revision) [CEF]
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]
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Year</th>
<th>Series</th>
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<tr>
<td>NS-G-2.2</td>
<td>Operational limits and Conditions and Operating Procedures for Nuclear Power Plants (2000)</td>
<td>[CEFRS]</td>
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<tr>
<td>NS-G-2.3</td>
<td>Modifications to Nuclear Power Plants (2001)</td>
<td>[CEFRS]</td>
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<td>NS-G-2.4</td>
<td>The Operating Organization for Nuclear Power Plants (2001)</td>
<td>[CEFR]</td>
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<td>NS-G-2.5</td>
<td>Core Management and Fuel Handling for Nuclear Power Plants (2002)</td>
<td>[ER]</td>
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<td>NS-G-2.6</td>
<td>Maintenance, Surveillance and In-Service Inspection in Nuclear Power Plants (2002)</td>
<td>[ER]</td>
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<td>NS-G-2.7</td>
<td>Radiation Protection and Radioactive Waste Management in the Operation of Nuclear Power Plants (2002)</td>
<td>[ERS]</td>
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<tr>
<td>NS-G-2.8</td>
<td>Recruitment, Qualification and Training of Personnel for Nuclear Power Plants (2002)</td>
<td>[ER]</td>
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<td>NS-G-2.11</td>
<td>A System for the Feedback of Experience from Events in Nuclear Installations (2006)</td>
<td>[ERS]</td>
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<td>NS-G-2.12</td>
<td>Ageing Management for Nuclear Power Plants (2009)</td>
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<td>NS-G-2.13</td>
<td>Evaluation of Seismic Safety for Existing Nuclear Installations (2009)</td>
<td>[ERS]</td>
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<td>NS-G-2.15</td>
<td>Severe Accident Management Programmes for Nuclear Power Plants (2009)</td>
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<td>NS-G-2.13</td>
<td>External Human Induced Events in Site Evaluation for Nuclear Power Plants (2002)</td>
<td>[ECFR]</td>
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<td>NS-G-3.2</td>
<td>Geotechnical Aspects of Site Evaluation and Foundations for Nuclear Power Plants (2005)</td>
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<td>SSG-2</td>
<td>Deterministic Safety Analysis for Nuclear Power Plants (2009)</td>
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<td>SSG-3</td>
<td>Development and Application of Level 1 Probabilistic Safety Assessment for Nuclear Power Plants (2010)</td>
<td>[ER]</td>
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<td>SSG-4</td>
<td>Development and Application of Level 2 Probabilistic Safety Assessment for Nuclear Power Plants (2010)</td>
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<td>SSG-9</td>
<td>Seismic Hazards in Site Evaluation for Nuclear Installations (2010)</td>
<td>[E]</td>
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<td>SSG-12</td>
<td>Licensing Process for Nuclear Installations (2010)</td>
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<td>SSG-13</td>
<td>Chemistry Programme for Water Cooled Nuclear Power Plants (2011)</td>
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<td>SSG-16</td>
<td>Establishing the Safety Infrastructure for a Nuclear Power Programme (2012)</td>
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<tr>
<td>SSG-18</td>
<td>Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations (2011)</td>
<td>[Co-sponsorship: WMO] [E]</td>
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<td>SSG-21</td>
<td>Volcanic Hazards in Site Evaluation for Nuclear Installations (2012)</td>
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<td>SSG-27</td>
<td>Criticality Safety in the Handling of Fissile Material (2014)</td>
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<td>SSG-28</td>
<td>Commissioning for Nuclear Power Plants (2014)</td>
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<tr>
<td>SSG-30</td>
<td>Safety Classification of Structures, Systems and Components in Nuclear Power Plants (2014)</td>
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<tr>
<td>SSG-35</td>
<td>Site Survey and Site Selection for Nuclear Installations (2015)</td>
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<td>SSG-38</td>
<td>Construction for Nuclear Installations (2015)</td>
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<tr>
<td>WS-G-2.1</td>
<td>Decommissioning of Nuclear Power Plants and Research Reactors (1999)</td>
<td>(under revision) [AECFR]</td>
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### C.2. Research Reactors

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>NS-R-3</td>
<td>Site Evaluation for Nuclear Installations (2003)</td>
<td>[ACEFRS]</td>
<td></td>
</tr>
<tr>
<td>NS-R-4</td>
<td>Safety of Research Reactors (2005)</td>
<td>[ACEFRS]</td>
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</table>
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]
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-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-38 Construction for Nuclear Installations (2015) [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 Site Evaluation for Nuclear Installations (2003) [ACEFRS]
NS-R-5 (Rev.1) Safety of Nuclear Fuel Cycle Facilities (2014) [ACE]
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]
C.4. Radioactive Waste Disposal Facilities

SSR-5 Disposal of Radioactive Waste (2011) [ACEFRS]
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]

C.5. Mining and Milling

RS-G-1.6 Occupational Radiation Protection in the Mining and Processing of Raw Materials (2004) [ES]

C.6. Applications of Radiation Sources

GSR Part 3 Radiation Protection and Safety of Radiation Sources – International Basic Safety Standards (2014) [ACE]
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-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]
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

[ACEFRS]
SSG-26  Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive
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
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]
[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 20 November 2015]

PROJECTS:

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 2]

DS495: Regulations for the Safe Transport of Radioactive Material, 20xx Edition – SSR-6, revision of SSR-6 [Step 2]

DRAFT STANDARDS UNDER DEVELOPMENT:

DS493: Package Design Safety Reports for the Transport of Radioactive Material, amendment and addendum to TS-G-1.5 [Step 5]

DS492: Human Factors Engineering in Nuclear Power Plants [Step 5]

DS491: Deterministic Safety Analysis for Nuclear Power Plants (revision of SSG-2) [Step 5]

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 5]

DS488: Design of the Reactor Core for Nuclear Power Plants, revision of NS-G-1.12 [Step 5]

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 7]


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 8]

DS482: Design of Reactor Containment Systems for Nuclear Power Plants, revision of NS-G-1.10 [Step 5]

DS481: Design of the Reactor Coolant System and Associated Systems in Nuclear Power Plants, revision of NS-G-1.9 [Step 5]

DS479: Operating Experience Feedback for Nuclear Installations, revision of NS-G-2.11 [Step 7]

DS478: Safety of Nuclear Fuel Cycle Facilities, revision of NS-R-5 [Step 8]


DS476: Safety of Research Reactors, revision of NS-R-4 [Step 11]
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 5]

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 8]

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 8]

DS471: Radiation Safety of X-ray Generators and Radiation Sources Used for Inspection Purposes and for Non-Medical Imaging [Step 7]

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

DS469: Planning and Preparing for Response to Transport Events Involving 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 5]

DS467 - Revision through addenda of GSR-Part 1, NS-R-3, SSR-2/1, SSR-2/2 and GSR Part 4: coordination (DS462), GSR Part 1 (DS463), NS-R-3 (DS464), SSR-2/1 (DS465) and GSR Part 4 (DS466), SSR-2/2 (DS467) [Step 14]

DS465: Establishing the Infrastructure for Radiation Safety [Step 11]

DS459: Management of Radioactive Residues from Mining, Mineral Processing, and other NORM related Activities (revision and expansion of WS-G-1.2) [Step 5]

DS458: Radiation Safety for Consumer Products [Step 14]

DS456: GSR Part 2: Leadership and Management for Safety (revision of GS-R-3) [Step 11]

DS455: Establishing the Infrastructure for Radiation Safety [Step 11]

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 11]

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 12]

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 11]

DS449: Format and Content of the Safety Analysis Report for Nuclear Power Plants (revision of GS-G-4.1) [Step 5]

DS448: Predisposal Management of Radioactive Waste from Nuclear Power Plants and Research Reactors (revision of WS-G-2.5) [Step 14]

DS447: Predisposal Management of Radioactive Waste from Nuclear Fuel Cycle Facilities (revision of WS-G-2.6) [Step 14]

DS442: Regulatory control of radioactive discharges to the environment (revision of WS-G-2.3) [Step 11]

DS440: Design of Auxiliary and Supporting Systems in Nuclear Power Plants [Step 5]
DS434: Radiation Safety of Radioisotope Production Facilities [Step 5]
DS432: Radiation Protection of the Public and the Environment [Step 11]
DS431: Design of I & C Systems for NPPs (revision of NS-G-1.1 and NS-G-1.3) [Step 14]
DS430: Design of Electric Power Systems for NPPs (revision of NS-G-1.8) [Step 14]
DS427: Prospective Radiological Environmental Impact Analysis for Facilities and Activities, revision of NS-G-3.2 [Step 11]
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 8]
DS399: Radiation Protection and Safety in Medical Uses of Ionizing Radiation (revision of RS-G-1.5) [Step 11]
DS381: Safety of Nuclear Fuel Cycle R&D Facilities [Step 12]
DS360: Safety of Nuclear Fuel Reprocessing Facilities [Step 12]
ANNEX VIII
DRAFTS OF THE NUCLEAR SECURITY SERIES UNDER DEVELOPMENT
INTERFACE DOCUMENTS ONLY; TENTATIVE TITLES ONLY
[status on 20 November 2015]

NST051: Security During the Lifetime of a Nuclear Facility [Step 5]
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 7]
NST044: Security in the Transport of Radioactive Material [Step 8]
NST041: Preventive and Protective Measures against Insider Threats [Step 9]
NST023: Security in Nuclear Facilities and of Nuclear Material in Use and Storage [Step 12]
NST020: Sustaining a Nuclear Security Regime [Step 11]
NST016: Detection of and Initial Response to 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 5]
NST009: Capacity Building for Nuclear Security [Step 8]
NST005: Regaining Control over Nuclear and Other Radioactive Material out of Regulatory Control
[Step 5]
NST004: Developing a National Framework for Managing Nuclear Security Events [Step 8]
NST002: Regulations and Associated Administrative Measures for Nuclear Security [Step 12]
ANNEX IX

STATUS OF REMAINING ACTIONS FROM THE 34TH AND 35TH MEETINGS OF THE COMMISSION AND STATUS OF ACTIONS FROM THE 36TH MEETING

35.04 The Secretariat to investigate how to expedite the publications process of draft standards endorsed by the CSS, the delay in the publication of SSG-26 being an example of a situation where the Member States don’t have access to the safety guide on how to implement the Safety Requirements SSR-6 published in October 2012 despite a clear request from the CSS that these documents should made available together. [Action: Secretariat, NS Department with MT Department]. IT technique for the revision of the Standards. Draft endorsed by the CSS available in the “complete collection of Safety Standards”. Discussion with MTIT and MTCD.

35.05 The Secretariat to finalize and make available an electronic version of the Safety Glossary and to continue to work towards harmonization, where feasible, of the use of terms in the safety standards and the nuclear security series. [Action: Secretariat, SSPU and NSNS]. 2016 Edition posted as draft of the Safety Standards web site.

35.09 RASSC to prepare a policy/position paper on the UN General Assembly deliberation on the attribution of radiation effects and inference of risk and possible implications for the safety standards. [Action: Secretariat, NSRW, and RASSC]. Discussion at the Nov. 2015 Meeting of RASSC – report at this meeting.

36.02 The translation of SSG-26 (Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material, 2012 Edition) into all official languages to be initiated as soon as possible, subject to availability of funding [Action: Secretariat, NSRW, MTCD]. On-going.

36.03 The CSS members to prepare the 37th meeting by providing feedback on a holistic review of the collection of Safety Guides, aimed at developing an approach to ensuring their consistency, completeness and proper interdependence, to be considered as an item on the agenda of the 37th CSS meeting. The long term structure is available through the status of safety standards. The current set of standards is available in the “complete collection of safety standards”. The feedback to be summarized by the Secretariat for discussion at the 37th meeting. [Action: CSS members, CSS Scientific Secretary]. Limited input. Postponed to the next CSS term. Input from the IT platform.

36.05 A pilot test of the IT platform for the feedback management, review/revision and publication process to be performed, including the management of definitions. [Action: Secretariat, CSS Scientific Secretary]. Testing and start of operatoin. Presentation under Item 6.1.

36.06 The CSS supports the preparation of a new SPESS E document on the objectives and processes for the feedback management, review/revision and publication of safety standards that uses as a supporting tool the new IT platform. The draft SPESS E to be discussed in 2015 with the Safety Standards Committees and then the CSS. [Action: Secretariat, CSS Scientific Secretary]. SPESS E submitted at the Chairs meeting and this CSS meeting.

37.01 The final report of the 36th CSS meeting to be uploaded on the CSS web page. [Action: Secretariat, CSS Scientific Secretary]. Done.

37.02 The Secretariat to keep the CSS informed on the progress in reviewing the Safety Guides, particularly with respect to the Vienna Declaration on Nuclear Safety. The CSS Chair to report to the IAEA Director General on the confirmation that the Safety Requirements reflect appropriately the principles in the Vienna Declaration and on the approach, with involvement of NUSSC for the review of specific Safety Guides. [Action: Secretariat, CSS Chair, NUSSC]. Letter from CSS Chair to DG sent on 20 August 2015 and agenda item 3.4 of this meeting (safety guides).
37.03 RASSC to review the Safety Requirements GSR Part 3 on Radiation Protection and Safety of Radiation Sources in light of relevant lessons learned from the Fukushima Daiichi accident and of the issuance of the new Safety Requirements GSR Part 7. [Action: RASSC]. Update from RASSC and future plan at this meeting

37.04 The Secretariat to ensure that the implementation of actions in response to the OIOS recommendation to enhance the efficiency of the approval and publication processes reflects the need to ensure the quality of the standards as a primary consideration. [Action: Secretariat and DDG-NS]. Process kept

37.05 The policy paper on quantitative/qualitative standards to be updated with further details provided during the meeting, inserted as an annex to the CSS 37 meeting report and incorporated in SPESS A. [Action: Secretariat, CSS Scientific Secretary]. Done Revision of SPESS A at the Chairs meeting and at this meeting (agenda item 6.2)

37.06 The discussion on the establishment of an Emergency Preparedness and Response Standards Committee to be reported to DDG-NS to inform his decision. [Action: Secretariat, CSS Scientific Secretary]. Done and DDG decision to establish EPReSC

37.07 A draft end of term report to be prepared and submitted in advance to the 38th CSS meeting for finalization. [Action: Secretariat, CSS Scientific Secretary]. Done. Draft submitted on 9 July

37.08 A list of actions resulting from the 37th CSS meeting to be provided to the CSS members for comment. [Action: Secretariat, CSS Scientific Secretary]. This list

37.09 The draft report of the 37th CSS meeting to be posted for comment by the CSS members. [Action: Secretariat, CSS Scientific Secretary]. Draft report submitted on 6 January and final report submitted on 9 July

37.10 The presentations made at the 37th CSS meeting to be uploaded on the CSS web page. [Action: Secretariat, CSS Scientific Secretary]. Done