NUCLEAR SAFETY STANDARDS COMMITTEE
(NUSSC)

SIXTH THREE YEAR REPORT
2011 - 2013

International Atomic Energy Agency
Vienna
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**Introduction**

In 1996, the new Safety Standards preparation and review process was established with the Advisory Commission for Safety Standards (ACSS) overseeing four Advisory Committees (NUSSAC, RASSAC, WASSAC and TRANSSAC), each with a responsibility for Safety Standards in its own technical area. NUSSAC became responsible for advising on the revision of the existing Nuclear Safety Series (NUSS) documents in the IAEA Safety Standards Series (SSS) of documents. In 2000, the titles of the Safety Standards Committees and the Commission dropped the word advisory (becoming NUSSC, RASSC, WASSC, TRANSSC and CSS). In 2012 the Nuclear Security Guidance Committee (NSGC) was established.

The Nuclear Safety Standards Committee (NUSSC) membership is given in Attachment 1, the terms of reference (mandate) for NUSSC are given in Attachment 2.

This report provides an overview of the work of the NUSSC during the sixth three-year term covering the period 2011 to 2013, which includes NUSSC 31st meeting (June 2011) to 36th meeting (October 2013). Its purposes are to highlight the main achievement of NUSSC during this term as well as NUSSC’s recommendations to the Secretariat for the future direction of the work of the Committee.

NUSSC meeting reports are available on NUSSC website. They provide detailed information on the meeting agenda as well as on discussions which took place during the meeting and NUSSC views on various topics. They are therefore not repeated in the present report.

**Learning from the TEPCO Fukushima Dai-ichi accident**

In March 2011, a major nuclear accident – rated at level 7 on INES Scale – occurred at the TEPCO Fukushima Dai-ichi NPP, following an earthquake and a tsunami both exceeding the ones considered for the design basis of the plant. As a consequence of this accident, the IAEA, supported by its Member States, initiated an ambitious action plan (see the document GOV/2011/59-GC (55)/14) which was approved during the 2011 General Conference. Among its actions, one (Action 6) is focused on taking into account the lessons learned from this accident into the IAEA Safety Standards. The CSS as well as the Safety Standards Committees (SSCs) have been largely involved in this initiative.

**Reviewing and Revising the Safety Requirements**

The first meeting of NUSSC following the TEPCO Fukushima Dai-ichi accident was NUSSC 31 (July 2011). This meeting was used to initiate exchanges with the Secretariat on the methodology to be followed to review and revise the Safety Standards in the light of this accident. The basis and methods for a gap analysis were investigated. As a result, prior to the NUSSC 32nd meeting, and as part of the CSS meeting preparation, the Secretariat issued a document outlining its approach to review and possibly update, Safety Standards. This approach was consistent with NUSSC suggestions.
In addition to NUSSC “usual” review of DPPs and DSs, NUSSC decided to set up specific provisions to allow greater NUSSC involvement in the review of DS462 Document Outline (DO) and DS462. Two NUSSC Working Group meetings were held:

- the first one (January 2012) to perform a preliminary review of the Secretariat gap analysis (which gives the rationale for DS462DO),
- the second one (March 2013) to perform a preliminary review of the Secretariat proposed changes to the Safety Requirements.

Both meetings, involving about half NUSSC members, took place before NUSSC routine meeting so that the likelihood to have a positive opinion of NUSSC would be increased. NUSSC Working Group meeting conclusions are available on NUSSC website.

The need for such Working Group meeting was again identified to prepare NUSSC 37th meeting (June/July 2014) with the goal of a preliminary review of the disposition of Member States comments on DS462.

### Reviewing and Revising the Safety Guides

Considering whether current IAEA safety recommendations were still appropriate or not, taking into account the lesson learned from TEPCO Fukushima Dai-ichi Nuclear Power Plant accident was not as straightforward as it was for the safety requirements. This was mostly caused by the absence of equivalent to “overarching requirements” as well as the larger number of recommendations already established in IAEA Safety Guides.

NUSSC challenged the Secretariat on the review/revision of Safety Guides from the very beginning (NUSSC 31 and NUSSC 32), while recognizing the priority of reviewing the Safety Requirements as well as the interface with such review.

Little progress occurred in 2012 as the Secretariat concentrated its efforts on the update of Safety Requirements. At NUSSC 34, in response to NUSSC insistence, it was agreed that the methodology used for the revision of the requirements should be used for the safety guides in order to have a systematic approach. To that end, it was decided to launch a pilot on NS-G-2.15 on Severe Accident Management Programmes for NPPs, NS-G-1.9 on Reactor Coolant System and Associated Systems in NPPs and NS-G-1.10 on Containment System for NPPs. A status report was presented by the Secretariat at NUSSC 35th meeting and DPP were presented at NUSSC 36th meeting. Comments were made by NUSSC on the method used to support his pilot review and, during NUSSC 35th and 36th meetings, additional guides (SSG-2 Deterministic Safety Analysis for NPPs, NS-G-1.5 External Events Excluding Earthquakes in the Design of NPPs, NS-G-1.6 Seismic Design and Qualification for NPPs, SSG-15 Storage of Spent Nuclear Fuel, NS-G-1.4 Design of Fuel Handling and Storage Systems in NPPs) were selected to undergo such review.

At NUSSC 36th meeting, the Secretariat suggested that a topical review of Safety Guides and not a Safety Guide by Safety Guide review could be an alternate method which could be more effective. NUSSC requested the Secretariat to document the method for such a topical review and to perform a limited implementation to test feasibility and effectiveness. Assessing whether this alternate method is effective and whether it is more efficient that the document by document review will be one task in NUSSC next term.
Implementing Long-term Structure of the IAEA Safety Standards

Cooperating with other SSCs and CSS

Four/Five Chair meetings

NUSSC chair attended all Chair meetings which were scheduled before CSS meeting, and where CSS chair partly attends.

The first 2011 Chair Meetings had a specific format as both former and new Chairs of NUSSC, RASSC and WASSC attended and such meeting was useful to enable an efficient transition. Once nominated, NSGC chair joined this meeting to contribute to a broader view on topics which have a safety-security interface.

In most occasions, SSC Chairs views are quite consistent and, even when NSGC Chair joined the meeting, it was not too difficult to elaborate a position that would be acceptable to all Chairs. This is seen as a major tool to ease greater synergy between safety and security.

Topics discussed at Chair Meetings are reported at CSS meetings as well as NUSSC meetings. CSS and NUSSC meeting reports include a summary of the topics addressed and associated conclusions.

CSS meetings

NUSSC chair attended all CSS meeting and reported on NUSSC work as well as NUSSC views on DPP and DS or other IAEA draft publications.

Joint WASSC-NUSSC meeting

One joint meeting with WASSC took place (NUSSC 33-WASSC 33). At the meeting Japan reported on the TEPCO Fukushima Dai-ichi Nuclear Power Plant status and decommissioning actions. Such information sharing among different technical areas was beneficial.

Overall, the joint meeting was successful.

Reviewing document preparation profiles (DPP)

During the six NUSSC meetings which took place during this 6th term, the following DPP were reviewed:

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✓: NUSSC agreed on the DPP (eventually after incorporating NUSSC remarks).  
❌: NUSSC concluded the DPP needed additional work before being accepted by NUSSC.  
①: DPP presented for information (not for approval)  
(#) : NUSSC agreed on the DPP although the Secretariat did not provide any feedback on the comments submitted prior to the meeting. This decision was supported by the fact it was the first time NUSSC was consulted on Nuclear Security Publication DPP and that NUSSC comments could later be accommodated.  
(1) : NUSSC cleared the DPP but with specific remark to the Lead Committee

**Reviewing draft Safety Standards (DS)**

During the six NUSSC meeting which took place during this 6th term, the following draft Safety Standard (DS) were reviewed:

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Safety Glossary | (1) |

✓ : NUSSC concluded the document could be sent to Member States for comment (eventually after incorporating NUSSC remarks).
 ✓ : NUSSC concluded the safety standard could be sent to CSS for approval/endorsement (eventually after incorporating NUSSC remarks) or, for a Nuclear Security Series publication, be sent for DDG approval/endorsement.
 ✗ : NUSSC concluded the document needed an additional work before being sent to Member States for comment.
 ✗ ✓ : NUSSC concluded the document needed an additional work before being sent to CSS for approval/endorsement.
 (1) : Status report by the Secretariat on the development of the draft and discussion.

(1) : DS367 – NUSSC concluded that, considering the remaining points where a consensus was not yet reached, a consultancy meeting could be organized to prepare revised draft. Consequently the decision to send DS367 to CSS was done electronically by the NUSSC members.
(2): DS429 – NUSSC approved conditionally the draft for submission to CSS. The document was then reviewed by technical editors and by consultants once again at the beginning of
Enhancing Synergy between Safety and Security

NSGC

In 2012, a new Committee — Nuclear Security Guidance Committee (NSGC) — was established in order to advise the IAEA on the elaboration of security publications. The establishment of such a Committee, whose first meeting took place in June 2012, was recommended by the Joint CSS-AdSec Task Force which has been functioning over several years. NUSSC welcomed this new committee and, during NUSSC meeting, was kept informed of NSGC on-going work.

In addition, NUSSC welcomed possibilities offered by the Secretariat to get accustomed to the Nuclear Security Series.

NUSSC is also willing, during its next term, to hold a joint NSGC/NUSSC meeting.

Interface Group (IG)

In order to facilitate the management of the safety/security interface, a so called Interface Group (IG) was established. It is composed of the four Safety Standards Committees Chairmen (NUSSC, RASSC, TRANSSC, WASSC) and the four NSGC representatives. The first meeting was held at the end of September 2012.

NUSSC chair took part in IG inaugural meeting as well as in electronic consultations aimed at determining, based on the Secretariat suggestion, whether a future publication would or not be an interface document, i.e. whether NSGC review would be needed on a draft safety standard or SSC (one, several or all) review on a draft security publication.

It appears that a majority of existing or future drafts are identified as interface documents. NUSSC recommends that both safety and security aspects are taken into account from the very beginning of drafting. The choice of consultants, if any, should favour this.

The Chairman underlined that the interest of NUSSC in security publications follows two principles:

- All security series dealing with management system should be reviewed by NUSSC as NUSSC is the committee in charge for radiation and nuclear safety management systems and because of the importance to have integrated management systems;
All security series dealing with the design of facilities should be reviewed by NUSSC: indeed, from a designer point of view, there are radiation and nuclear safety as well as nuclear security issues.

Reviewing DPP and documents of the Nuclear Security Series

As shown in tables above, NUSSC started to review documents related to the Nuclear Security Series. With one exception, only DPP were reviewed and it generally appeared that the list of Safety Standards to be taken into account when drafting was often incomplete.

NUSSC Working Methods

Working between NUSSC meetings

During this term, NUSSC implemented some new ways of working, on a case by case basis. These ways, which are described below, were quite successful and could be used again, as needed.

Conference call

On a few drafts, considering that a very limited number of points were not yet fully satisfactory to NUSSC, NUSSC agreed to hold a specific conference call to review progress on the drafts made by the Secretariat. The purpose of the conference call and the way NUSSC member views would enable or not the draft to get to its next development steps were discussed and agreed during the NUSSC meeting. Each conference call was notified to all NUSSC members and observers and opened to anyone volunteering.

This process was used for DS367 and DS430 and was effective.

NUSSC working group meeting

To facilitate its contribution to the review and revision of Safety Requirements to take into account TEPCO Fukushima Accident lessons learned, a meeting of a NUSSC Working Group took place in January 2012, prior to NUSSC 33rd meeting (July 2012). This Working Group meeting, where any NUSSC member or observer could attend, enabled to review a table prepared by the IAEA linking the first lessons (106) from the accidents and the safety requirements published by the IAEA. This table (gap analysis) would later become the basis for DS462 Document Outline (DO). This review allowed confirming or amending the Secretariat point of view on whether current Safety Requirements were still adequate or not. If not, suggestions for amendments of existing requirements or creation of new requirements were sometimes provided. An initial review of the Safety Guides which might need revision as well a preliminary prioritization was suggested.
The results of this review have been presented at the meeting of the Four Safety Standards Committees and then to the CSS in March 2012. They were later presented and discussed within the frame of NUSSC 33rd meeting (including its preparation) so that a NUSSC opinion – and no more a NUSSC Working Group view – could be established, for the Safety Requirements, on DS462DO.

Another NUSSC Working Group meeting took place in March 2013, prior to NUSSC 35th meeting (June 2013) to perform a preliminary review of the changes proposed by the Secretariat to the Safety Requirements. This review focused on the Addenda to SSR-2.1, SSR-2.2, GSR Part 4 and NS-R-3 but some limited time was also devoted to general comments on the Addendum to GSR Part 1. This Working Group meeting, where any NUSSC member or observer could attend, either confirmed the Secretariat proposed changes or resulted in suggestions of amendments. Following this preliminary review, the Secretariat updated DS462 and put it on the agenda of the Summer 2013 SSC meetings (as well as NSGC May 2013 meeting).

The principle of a new working group meeting, to discuss disposition of Member States comments on DS462, was agreed at NUSSC 36th meeting.

Small group work

For some drafts, NUSSC decided it would be helpful to have some of its members (a handful) more involved during the drafting process, so that significant topics or issues could be identified prior to a formal review by NUSSC and discussed during a NUSSC meeting to provide input/direction for consideration by the Secretariat.

Such small group were establish to follow up the development of DS367 (Safety Classification of SSCs), DS441 (Construction of Nuclear Installations) DS456 (Safety Requirements Leadership and Management for Safety).

Industry input

Observers such as WNA or ENISS are very active NUSSC contributors, both through written submission as a part of NUSSC meeting preparation and through oral interventions during NUSSC meetings. By providing industry views, both organizations help NUSSC to take a better informed decision. An example of valuable WNA and ENISS input was on the review of DS367 and the resolution of issues raised during the review, especially on actual possibilities to implement the future guidance. Industry input in the review of Safety Standards is therefore valued and NUSSC expects that, in the short term, WANO input will also benefit to NUSSC.

The presentation made by WNA/CORDEL on the industry view of lessons learned from TEPCO Fukushima accident was also interesting as bringing questions on vendors’ roles and regulators roles with respect to fleets of similar reactors.
Greater awareness of safety development

NUSSC benefited from numerous information on on-going safety relevant actions, for example:

- Status report/information on Fukushima Dai-ichi installations status or other significant safety issues detected at some nuclear installations (Doel 3/Tihange 2 reactor pressure vessel in Belgium);
- INSAG publication and on-going drafts;
- TSO Forum,
- ISO or IEC standards being developed. NUSSC recognized the strong involvement of IEC in the development of safety guides dealing with Instrumentation and Control System (DS431).

NUSSC also tries to get greater awareness of the IAEA Safety Standards in IAEA Member States and Regulatory development in IAEA Member States (Argentina, Australia, Canada, Croatia, Czech Republic, Finland, Germany, India, Japan, Korea, Mexico, Pakistan, Poland, Slovenia, South Africa, UK, Ukraine, UAE, USA), including in relation to TEPCO Fukushima accident.

Conclusions by the Committee and Recommendations for the Next Term

NUSSC main achievements during this term are summarized above. They include the review of 24 DPPs and 23 safety standards as well as initial steps in enhancing safety/security interface between Safety Standards and Nuclear Security Series. New working methods have also been implemented on a case by case basis.

For the next term, the following items are identified for consideration.

IAEA Safety Standards: Implementing long term structure while incorporating lessons learned from Fukushima accident

Review and update of Safety Guides in light of TEPCO Fukushima accident

Concerning the lessons learned from TEPCO Fukushima accident, NUSSC recommends to complete the process already initiated on the Safety Requirements and to tackle more aggressively the review and revision of Safety Guides. In particular, NUSSC expects that the prototype review performed on selected Safety Guides will enable to clarify the methodology to be applied for the review and revision of all Safety Guide, with specific attention on prioritization.
In relation to TEPCO Fukushima accident, NUSSC suggests the Secretariat to consider the following topic to be included in the IAEA Safety Standards or other IAEA publications:

- The minimum level of design knowledge that all utilities must retain “in house” in order to operate, to maintain and to ensure the continuing safety of their plant, and meet SF-1 and SSR-2.1;
- The role of the designer as a repository of design knowledge, in the development and recommendation of design changes that have fleet wide implications;
- The potential role of world-wide design specific Owner’s Groups in design change management.

Need for additional guidance in IAEA publication

At several occasions, many NUSSC members expressed the need for IAEA to develop guidance on “new” concepts such as Design Extension Conditions or Practical Elimination (introduced in SSR-2/1). NUSSC suggests IAEA prepares DPPs to update existing Safety Guides or develop new Safety Guides to address these concepts and their implementation.

Similarly, there is a need to develop guidance on NPPs in the area of the transition of power operating into the decommissioning.

Some members also expressed needs for guidance on integrated management system. Such topic would however warrant a careful interface with ISO publications.

Clarifying the detailed expectations for a revision of a Safety Standard

The development of DS462DO was the opportunity to test a “new” method to update Safety Standards by:

- Making a gap analysis to identify which part of a specific Safety Requirement document needed update;
- Engaging through a single DPP (or more exactly a Document Outline) the updated of several Safety Standards in relation to a limited number of issues (TEPCO Fukushima lessons learned).

NUSSC sees benefits in the efforts performed at the DPP development stage to clearly identify which part of a Standard needs to be updated and orientations for such update. Ways to better frame the expected update of a Safety Standard, for example by requiring a detailed review (eventually after being “cleared” by the CSS or an advisory committee to allow IAEA resources to be devoted to this task) before the DPP with explicit identification of sections to be updated, should be considered.

Prioritisation and workload

Following TEPCO Fukushima accident, NUSSC acknowledged the priority to review and revise Safety Requirements first. Concerning Safety Guides, NUSSC identified about 40 guides which would warrant a review and, among them, ten or so which would warrant an urgent review. NUSSC however recognizes that:

- development of Safety Standards requires availability of IAEA resources (to establish the DPP then the draft), with the support of consultants or Member States, taking into
account other missions IAEA staff are expected to perform (review services, technical cooperation…) and their associated priorities;
- status report on the development of draft according to SPESS steps gives only a partial view of on-going efforts and timeframes.

NUSSC suggests that, for the next term, additional standard items in its agenda should be:
- a review of all DPP where NUSSC is the lead committee to advise the IAEA, if there are resources concerns, on what should be priorities according to NUSSC;
- information on potential DPP being under consideration within the IAEA, to enable NUSSC to give feedback for consideration.

As for the review of drafts, NUSSC recognizes both the difficulties faced by NUSSC members to plan resources for such review in advance of NUSSC meetings as well as efforts made by the Secretariat to give advance notice of future documents to review. The “standard” agenda item on Safety Standard Status has been inserted for such purpose and additional information on timeframes has recently been included. Additional tools or process to enable a better planning of resources should however be considered.

IAEA Safety Standards: Greater consistency and user friendliness

In addition to the necessary and beneficial progress in developing Safety Standards according to the Long Term Structure, which should be completed in 2015 for the General Safety Requirements, as defined by the CSS and to incorporate TEPCO Fukushima lessons learned into the Safety Standards, NUSSC recommends to use web based tools to improve the user friendliness of IAEA Safety Standards as well as a clearer connection between overarching requirements, requirements and guidance. The tool, which had been developed by the Secretariat for Safety Requirements showed its value by allowing “quick” performance of the gap analysis supporting DS462DO.

Such web tools would also help in greater consistency in Safety Standards by avoiding unnecessary differences in wording across activities/facilities, both at requirement and recommendation levels.

For NUSSC activities, a specific action to greater consistency is dealing with fuel cycle facilities (NS-R-5). As all appendixes are now available (DS439 was endorsed by CSS), the Secretariat developed a DPP to enable the review, update the format (by identifying overarching requirements), revisiting the balance between main text and appendixes and improvement of consistency with SSR-2.1 and SSR-2.2 when relevant (i.e. when the requirement is not directly related to the process implemented in the installation). This action should be continued.

As for Safety Standards dealing with Nuclear Power Plants (NPPs) or Research Reactors (RRs), NUSSC stresses the need to continue improving the consistency of Safety Standards for New Reactors, low power NPPs, such as the one envisaged as Small Modular Reactors (SMR), may have a similar power range as some “powerful” RRs. As an example, there is a need to keep consistency between DS431 (Safety Guide on Digital Instrumentation and Control Systems for NPP) and DS436 (Safety Guide on Instrumentation and Control and Software Important to Safety for Research Reactors).
A last challenge for NUSSC, but also for the other SSCs and NSGC, is to progress on better consideration of security aspects in Safety Standards and of safety aspects in the Nuclear Security Series. Building up on initiatives initiated mid-2013 on DS419 and DS420 will require sustained efforts and may imply additional delay but will result on increased user-friendliness of the publications.

**IAEA Safety Standards and other IAEA Publications (Security Series, INSAG)**

As a result of the creation of NSGC and of the IG, it is now obvious that a large number of Safety Standards and of Nuclear Security Publications have interfaces. This will imply additional workload for NUSSC (as well as for the other SSCs and NSGC). Recognizing that the review process involving several SSCs and NSGC is quite new, it may be too early to determine whether one additional meeting of each SSC would beneficial or not. NUSSC recommends the Secretariat to monitor the workload of each committee to avoid a too heavy workload compromises the preparation and conduct of meetings and, potentially, the quality of IAEA publications.

As for Safety Standards and Nuclear Security Series, NUSSC recommends the Secretariat, while recognizing the associated challenge, to rapidly progress on a common glossary of terms to avoid misunderstanding depending on the readers (including reviewers) of documents.

INSAG 26 (Licensing the First Nuclear Power Plant) or the INSAG report being prepared on “leadership and management for safety” are addressing topics of IAEA Safety Standards, recently published or under revision. NUSSC recommends the Secretariat to carefully consider how INSAG and Safety Standards publication could be developed, to avoid duplication (or at least perceived duplication).

**IAEA Safety Standards and international technical standards (ISO, IEC)**

NUSSC recognizes that Safety Standards do not replace detailed technical guidance and that generally, except companies primarily working in the nuclear business, companies are more familiar with Technical Standards published by International Organization for Standardization (ISO), International Electrotechnical Commission (IEC) or other international organizations.

IEC and ISO observers regularly attends NUSSC meetings, taking into account items put on the agenda. NUSSC believes a feedback report should be established on the interfaces between IAEA safety standards and IEC publication as it seems that an effective interface has been achieved and could serve as a basis for further work with other Standard Organizations:

- IEC contributed significantly to the development of DS367, DS430, DS431 and DS436;
- IEC uses the IAEA Safety Standards (and IAEA Safety Glossary) as a basis for establishing IEC standards enabling adequate implementation.
DPP could also include, more systematically, references to relevant ISO, IEC or other international Technical Standards to avoid duplication and enhance interface. Other initiatives, such as the publication of IAEA safety report 69 (Management System Standards: Comparison between IAEA GS-R-3 and ISO 9001:2008 - 2012) are also means to clarify relations between IAEA Safety Standards and international Technical Standards.
ATTACHMENT 1

Nuclear Safety Committee (NUSSC) Membership
The following members have been appointed by the IAEA’s Director General for the period 2011-2013 (in alphabetical order):

1. Algeria* Mr D. Merrouche
2. Argentina Mr R. Waldman
3. Australia Mr J. Ward
4. Austria Mr S. Sholly
5. Belgium Mr B. De Boeck
6. Brazil Mr A. Gromann de Araújo Góes
7. Bulgaria* Mr N. Vlahov
8. Canada Mr G. Rzentkowski
9. China Mr Jingxi LI
10. Croatia Mr S. Medaković
11. Cyprus* Mr P. Demetriades
12. Czech Republic Mr Mr. J. Vesely
13. Egypt Mr M. Ibrahim
14. Finland Ms M. Jarvinen
15. France Mr Mr. F. Feron (Chairman)
16. Germany Mr K. Weidenbrück
17. Greece* Mr G. Nikolaou
18. Hungary Mr F. Adorjan
19. India Mr K. K. Vaze
20. Indonesia* Mr A. Antariksawan
21. Iran, Islamic Republic of Mr N. Mataji Kojouri
22. Israel Mr. R. Harari
23. Italy Mr. L. Matteoci
24. Japan Mr. T. Yamada
25. Korea, Republic of Mr. H. D. Chung
26. Libya Mr. O. Abulagassem
27. Lithuania Mr. S. Šlepavičius
28. Malaysia Ms A. Mohammad Jais
29. Mexico Mr A. Nunez Carrera
30. Morocco Ms I. Soufi
31. Pakistan Mr. F. Mansoor
32. Panama Mr. E. Gibbs
33. Poland Mr. W. Kielbasa
34. Romania Mr. C. Ciurea-ercau
35. Russian Federation Mr. A. Stroganov
36. Slovak Republic Mr P. Uhrik
37. Slovenia Mr D. Vojnović
38. South Africa Mr. T. Tselane
39. Spain Mr J. Zarzuela
40. Sweden Mr A. Hallman
41. Switzerland Mr. K. Theiss
42. Thailand* Mr. L. Siripirom
43. Turkey* Mr B. Kilinc
44. Ukraine Mr. G. Gromov
45. United Arab Emirates Mr I. Grant
46. United Kingdom Mr. A. Hart
47. United States of America Mr. M. Case
48. Observer from EC Mr. C. Kirchsteiger
49. Observer from ENISS Mr. G. Bassing
50. Observer from ISO Mr B. Sevestre
51. Observer from IEC Mr J-P Bouard
52. Observer from OECD/NEA Mr J. Reig
53. Observer from WANO Mr. J. Päivärinta
54. Observer from WNA Mr. T. Fröhmel

* indicates a corresponding member of the Committee.
ATTACHMENT 2

Terms of Reference of the Safety Standards Committees
NUCLEAR/RADIATION/TRANSPORT/WASTE SAFETY STANDARDS COMMITTEE

The Nuclear/Radiation/Transport/Waste Safety Standards Committee (NUSSC/RASSC/TRANSSC/WASSC) is a standing body of senior experts in nuclear/radiation/transport/waste safety, established by the Deputy Director General, Head of the Department of Nuclear Safety and Security. NUSSC/RASSC/TRANSSC/WASSC advises the Deputy Director General on the nuclear installation/radiation/transport/waste safety programme for the development, review and revision of standards relating to nuclear/radiation/transport/waste safety and the programme for their application. A key objective of NUSSC/RASSC/TRANSSC/WASSC is to provide feedback and recommendations to the Agency on the nuclear installation/radiation/transport/waste safety programme and areas for improvement, and to achieve consensus, quality, coherence and consistency in the development of IAEA safety standards.

Functions
The functions of NUSSC/RASSC/TRANSSC/WASSC are:

- To advise on the nuclear installation/radiation/transport/waste safety programme for the development of the nuclear/radiation/transport/waste safety standards issued in the Agency’s Safety Standards Series, covering Safety Fundamentals, Safety Requirements and Safety Guides, both thematic and facility specific, and to advise on priorities.
- To recommend activities and areas for improvement to enhance the overall programme and particularly to advise on the programme for the application of the safety standards.
- To review reports on feedback from the Secretariat and NUSSC/RASSC/TRANSSC/WASSC members on the application and use of nuclear/radiation/transport/waste safety standards and to advise on enhancing their usefulness to achieve high levels of safety, as well as on the timely review of and the need for revision of published nuclear/radiation/transport/waste safety standards.
- To review proposals for the development of relevant new standards and to approve the document preparation profiles (DPPs) prior to their submission to the Commission on Safety Standards.
- To review draft nuclear/radiation/transport/waste safety standards, considering the value of each draft standard and the needs of users of the standards.
- To approve the text of relevant draft safety standards prior to their submission to Member States for comment and prior to their submission to the Commission for endorsement.
- To advise on nuclear/radiation/transport/waste safety standards, relevant regulatory issues and activities for supporting the use and application of the Agency’s safety standards, and, upon request, on related issues.
- To review upon request draft publications in the Nuclear Security Series, in the Nuclear Energy Series and in other IAEA series where there is an interface with nuclear/radiation/transport/waste safety standards.

The functions of NUSSC/RASSC/TRANSSC/WASSC members are (in accordance with the established strategies and processes):

18
To prepare for and attend the meetings of NUSSC/RASSC/TRANSSC/WASSC and to contribute actively to the work of NUSSC/RASSC/TRANSSC/WASSC.

To disseminate the draft nuclear/radiation/transport/waste safety standards in their respective States, to seek comments from their national stakeholders and to present a national position on each draft safety standard, which should be based on appropriate consultation at the national level and coordination of the input of national stakeholders.

To promote awareness of the safety standards in their respective States.

To compile feedback from the users of nuclear/radiation/transport/waste safety standards, including feedback on how nuclear/radiation/transport/waste safety standards are being used and on any identified shortcomings or gaps, and to report on it to NUSSC/RASSC/TRANSSC/WASSC.

Membership

- Membership is open to all IAEA Member States
- Member States will be requested to nominate a senior expert in nuclear/radiation/transport/waste safety to represent their views. Typically the Member State nominee is a senior regulator. The Deputy Director General, Head of the Department of Nuclear Safety and Security, will appoint the members for a term of three years.
- Invitations to attend NUSSC/RASSC/TRANSSC/WASSC meetings as observers by candidate international organizations and non-governmental bodies may be considered on a case by case basis in accordance with established strategies and processes.
- The Director of the Division of Nuclear Installation Safety/Radiation Transport and Waste Safety or his/her appointee will participate in all NUSSC/RASSC/TRANSSC/WASSC meetings.
- The Director of the Division of Nuclear Installation Safety/Radiation Transport and Waste will designate a scientific secretary for NUSSC/RASSC/TRANSSC/WASSC.

Working methods

- The Deputy Director General will appoint a chairperson from among the members for NUSSC/RASSC/TRANSSC/WASSC’s three-year term. Should the chairperson be unavailable for any meeting, a deputy should be appointed from the members in consultation between the chairperson and the Director of the Division of Nuclear Installation Safety/Radiation Transport and Waste.
- The chairperson, in conjunction with the scientific secretary, will prepare a report of the proceedings of each NUSSC/RASSC/TRANSSC/WASSC meeting and a report at the end of each three year period on the progress made.
- The chairperson will participate in periodic meetings of the chairs of NUSSC/RASSC/TRANSSC/WASSC to collaborate on review processes for safety standards, to coordinate on issues and other documents of mutual interest to the Committees, and to discuss other topics as may be necessary.
- The chairperson will represent the views of NUSSC/RASSC/TRANSSC/WASSC at the meetings of the Commission and will ensure that NUSSC/RASSC/TRANSSC/WASSC members are kept informed of any decisions taken. In particular, the chairperson will seek the views of the Commission on any unresolved issues.
- Ordinarily, NUSSC/RASSC/TRANSSC/WASSC will meet twice a year with each meeting lasting up to five working days. Extraordinary meetings may be called when required.
A Member State may decide to send a delegation of representatives to the meeting of NUSSC/RASSC/TRANSSC/WASSC, with the expertise needed for the items at the agenda of the meetings. The delegation may include other national government representatives, national industry representatives or other stakeholders. However, each Member State is expected to present a “national” position on the Committees agenda items with the Member State appointed representative providing the national position. If the appointed Member State representative cannot attend a Committee meeting, the representative should advise the IAEA of his/her unavailability and designate an alternate to represent the Member State at the Committee meeting.

The Director of the Division of Nuclear Installation Safety/Radiation Transport and Waste, in consultation with NUSSC/RASSC/TRANSSC/WASSC, may establish working groups of experts to deal with specific tasks for the purpose of assisting NUSSC/RASSC/TRANSSC/WASSC in its work.

Meetings will be conducted in English.

NUSSC/RASSC/TRANSSC/WASSC will report to the Deputy Director General, Head of the Department of Nuclear Safety and Security.

Resources

- The Secretariat will provide the resources necessary for ensuring the efficient working of NUSSC/RASSC/TRANSSC/WASSC. The Secretariat will provide copies (typically electronic copies) of relevant documents and background materials necessary to support the efficient function of the Committee and the Committee members. In addition to copies of draft safety standards, copies of other IAEA documents including relevant Safety Reports and TECDOCs will be provided as appropriate.
- All costs involved in the participation of each NUSSC/RASSC/TRANSSC/WASSC member, including travel and per diem expenses, will be borne by the Member State that nominated the member.
ATTACHMENT 3

Meetings of the Nuclear Safety Standards Committee (NUSSC) during its Sixth Three Years Term

31\textsuperscript{st} Meeting 4 – 6 July 2011
32\textsuperscript{nd} Meeting 18 – 20 October 2011
33\textsuperscript{rd} Meeting 2 – 5 July 2012
34\textsuperscript{th} Meeting 19 – 21 November 2012
35\textsuperscript{th} Meeting 24 June – 28 June 2013
36\textsuperscript{th} Meeting 16 – 18 October 2013
ATTACHMENT 4

Status of Safety Standards at the end of the Nuclear Safety Standards Committee (NUSSC) Sixth Three Years Term

<table>
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<tr>
<th>Standard</th>
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<th>Title</th>
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<th>RASSC</th>
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<td>Near Surface Disposal Facilities of Radioactive Waste</td>
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<td>Safety Classification of Structures, Systems and Components in Nuclear Power Plants</td>
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<td>DS397</td>
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<td>Safety in the Utilization and Modification of Research Reactors</td>
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<td></td>
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<td>DS399</td>
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<td>Radiation Safety in Medical Uses of Ionizing Radiation</td>
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<td>Criticality Safety in the Handling of Fissile Material</td>
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<td>Step 14 (will be published as SSG-27)</td>
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<td>Radiation Safety in Well Logging</td>
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<td>Radiation Safety for Nuclear Gauges</td>
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<td>Protection of the Public Against Exposure Indoors due to Radon and Other Natural Sources of Radiation</td>
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<td>Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material</td>
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<td>DS429</td>
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<td>Use of External Experts by the Regulatory Body</td>
<td>XX</td>
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<td>DS430</td>
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<td>Design of Electrical Power Systems for Nuclear Power Plants</td>
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<td>DS431</td>
<td>SG</td>
<td>Design of</td>
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¹ By December 2013
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<td>Instrumentation and Control Systems for Nuclear Power Plants</td>
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<td>Site Survey and Site Selection for Nuclear Installations</td>
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<td>DS437</td>
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<td>Instrumentation and Control and Software Important to Safety for Research Reactors</td>
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<td>Construction for Nuclear Installations</td>
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<td>DS442</td>
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<td>Regulatory control of radioactive releases to the environment from facilities and activities</td>
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<td>DS446</td>
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<td>Commissioning for Nuclear Power Plants</td>
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<td>DS447</td>
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<td>Predisposal Management of Radioactive Waste from Nuclear Fuel Cycle Facilities (revision of WS-G-2.6)</td>
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<td>DS448</td>
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<td>Predisposal Management of Radioactive Waste from Nuclear Reactors revision of WS-G-2.5</td>
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<td>DS450</td>
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<td>DS451</td>
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<td>Schedules of Provisions of the IAEA Regulations for the Safe Transport of Radioactive Material Addendum</td>
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<td>DS453</td>
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<td>Occupational Radiation Protection (revision and combination of RS-G-1.1, RS-G-1.2, RS-G-1.3)</td>
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4 Reviewed during the current term for Steps 7 and 11
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<td><strong>DS454</strong></td>
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<td>• Predisposal Management of Waste from the Use of Radioactive Materials in Medicine, Industry, Research, Agriculture and Education, revision of WS-G-2.7</td>
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<td><strong>DS455</strong></td>
<td><strong>SG</strong></td>
<td>• Establishing a National Radiation Safety Infrastructure (together with the future management system safety guide, this DS455 will also supersede RS-G-1.4)</td>
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<td><strong>DS456</strong></td>
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