WASTE SAFETY STANDARDS COMMITTEE (WASSC)

19-21 November 2013

IAEA HEADQUARTERS, VIENNA, AUSTRIA

REPORT OF THE THIRTY SIXTH MEETING
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WASSC MEETING
IAEA HEADQUARTERS, VIENNA
19 November 2013

W.1 OPENING OF WASSC MEETING

The meeting was opened by Mr G. Bruno, Acting Section Head (SH) for the Waste and Environmental Safety Section (WES-NSS), on behalf of the Secretariat and participants were welcomed to the 36th meeting of WASSC and last meeting of the term. Mr Bruno referred to the departure of Mr Magnus Vesterlind, former section head of WES, and his subsequent appointment as Acting SH until a new SH is recruited. Mr Bruno gave an overview of the main highlights of the Section since the last meeting of WASSC, in July 2013, particularly on the status of the international projects, the missions to Fukushima on remediation and decommissioning, and the main meetings and workshops planned for next year.

W.2 CHAIRMAN’S REMARKS

Mr G. Williams, Chair of WASSC, welcomed members to this meeting, expressing his sadness for opening the last meeting of the three year term of WASSC. He also conveyed his thoughts regarding the success of the work undertaken by WASSC during the term, and noted the importance of receiving the inputs of WASSC members to the discussions of the Three Year Report. Mr Williams felt that it was important to celebrate the achievements of the Committee, and he shared his view that WASSC is a great community to be part of, as WASSC is a committee whose culture is that of philosophers and fore-front thinkers.

Mr Williams provided feedback from the Chairs’ meeting of the safety and security committees, the view being to ensure that all feedback from committees is considered and harmonized. Mr Williams also highlighted that a topic now in the spotlight is the document referring to communication and consultation with interested parties. Following discussions at the last WASSC meeting, the importance of the consultation and communication of regulators and operators with interested parties for the future radioactive waste management activities was evident. In this regard, the scope of the related document, DS460 was clarified and adjusted to present guidance for regulators on the consultation of interested parties by the side of the regulator and on the requests of consultations to operators of WM facilities, with regulatory purposes consistent with the safety case. Other type of communications and consultations by the side of the operators might be dealt by Nuclear Energy Series documents.

Mr Williams also referred to the outcomes of the WASSC Working Group meeting held the day before and particularly to the fact that WASSC welcomes the possibility to look into the current review of the Safety Guides. Two years ago, the WG reviewed the adequacy of the Waste Safety Requirements in relation to the lessons learnt from the TEPCO’s Fukushima-Daiichi NPP’s accident. At that time, it was considered that the Waste Safety Requirements were robust and that there was no need to reopen them, but recommended that several SG’s have to be reviewed carefully. The WG of WASSC met the day prior to this meeting, to discuss the Waste Safety Guides needing attention as part of a review. There was a deep and lively discussion for improving the future of the WSS’s, with the aim to identify if any gaps exist or there is any need for the revision of a particular topic.
Mr Williams also informed that DS450, the Safety Requirement on the Decommissioning of facilities was endorsed by CSS at its 34th meeting in early November 2013, and highlighted that there are important matters relevant to Lessons Learned from the TEPCO’s Fukushima-Daiichi NPP’s accident to feed into the preparation of DS452 and DS468.

Mr Williams wished all participants a successful meeting.

W.3 ADOPTION OF AGENDA FOR THE WASSC MEETING

The agenda of the meeting (please refer to Annex I) was adopted with two minor amendments:

1. Item W.10.2(a) was deleted as Mr Leal, from Brazil could not attend the meeting;

2. Item W.11.1, on the feedback from the WG was added to the Agenda.

W.4 ADMINISTRATIVE ARRANGEMENTS FOR THE MEETING

Ms G. Siraky, Coordinator of WASSC (WES-NSRW) announced the administrative arrangements for the meeting. Ms Siraky also welcomed all WASSC members, in particular those delegates attending a WASSC meeting for the first time and those participating on behalf of WASSC members, and announced the regrets received. Ms Siraky also referred to the fact that WASSC meetings adhered to the Agency’s paperless meeting policy and that all the presentations would be made available by the end of the day in the dedicated WASSC folder online.

W.5 REPORT FROM 35TH MEETING

The participants approved the WASSC 35 meeting report with a minor modification requested by Mr Befford, member of WASSC for Switzerland, regarding his comment while discussing the Safety Case (SC) for Dual Purpose Casks (DPC). One paragraph is to be added under item W.11.2, Feedback from the Joint Working Group on Integrated Transport and Storage Safety Case for Dual Purpose Casks, as follows:

One WASSC member noted the convenience of applying an ageing management programme also to the dual purpose casks used for HLW, to be considered in the development of guidance for such type of waste.

Action 1: The Secretariat to amend WASSC 35 meeting report with the addition of the paragraph indicated by Mr Befford and make it available in the SSCs web page as the final report.

Action 2: The Secretariat to take into account the suggestion of Mr Befford while developing DS447 and DS448.

W.6 STATUS OF ACTIONS ARISING FROM WASSC 35

Ms G. Siraky, presented the current status of actions arising from the previous meeting, WASSC 35, attached to this report as Annex II.
W.7 WASTE SAFETY STANDARDS STATUS AND FUTURE STEPS

Ms Siraky presented the current status of the Waste Safety Standards. The most relevant news in this area was:

- DS450, Draft Safety Requirements on Decommissioning of Facilities, has been endorsed by CSS34 for submission for the approval of the Board of Governors (March 2014); and
- the provision of a new feature on the Safety Standards home page, that allows the user to download all Safety Standards simultaneously in one language in only one file. This file includes the published documents and the established Safety Standards (approved by CSS or the Board of Governors and currently in the process of publication).

W.8 REVIEW OF DOCUMENTS FOR APPROVAL

W.8.1 Draft Safety Guide: Construction for Nuclear Installations, DS441

Mr F. Jiang (OSS-NSNI) presented the draft safety guide on construction for nuclear installations by indicating the main drivers for elaborating this safety guide, such as:

- there are a large number of new builds, either with the construction phase initiated or the decision to construct had been taken;
- there are a number of countries planning to embark on a nuclear power programme with no experience;
- there are also experienced countries with no recent construction;
- several first-of-a-kind reactors are being built; and
- there is a high multi-national participation in new builds.

The objective of the document is to provide recommendations and guidance on international good practices in the construction of nuclear installations, as currently followed in Member States, which will enable high quality construction to proceed which is consistent with the design requirements, as agreed by the regulatory body in issuing the authorization for construction. Mr Jian highlighted that the document is not a guide on how to construct an NPP.

The implications of the TEPCO’s Fukushima Daiichi’s NPP accident, in particular referred to multiple nuclear installations on the same site, are also considered by the document. In particular, it has been recommended to carry out safety and security assessments to minimize the impact from existing operating facilities in term of potential radiological contamination and independence of safety systems.

The document received nearly 700 comments during the period of 120 days for commenting from Member States, and from them, nearly 500 were accepted and incorporated.
One of the major changes to the document refers to the oversight of construction activities by the regulator. A new paragraph was added to reinforce the requirement of regulatory oversight. The main amendment is as follows:

*Regulatory oversight during construction should cover the management system of the licensee and its control of contractors and subcontractors, as well as the monitoring and direct observation of construction work practices and items and equipment used in construction.*

Mr Jiang noted that there were no questions from WASSC during the period previous to the SSCs meetings.

WASSC members then sought clarification on the linkage between the subject of this document and the WM facilities. Mr Jiang clarified that the scope of the document covers nuclear installations, including predisposal WM facilities and spent fuel storage facilities at NPP’s or in other nuclear installations. There were no further inputs from WASSC. WASSC agreed that the document should proceed to next step.

*Action: The Secretariat to submit DS441 to CSS for endorsement for publication.*

**W.9 DISCUSSION ON DOCUMENTS**

**W.9.1 Draft Safety Guide on Radiological Environmental Impact Assessment, DS427**

Mr D. Telleria (WES-NSRW) introduced the draft Safety Guide on radiological environmental impact assessment (REIA) for discussion. Mr Telleria pointed out that the original intent was to present this document for approval at the joint RASSC and WASSC sessions, however, after receiving the comments from the committee members it was considered convenient to discuss it in detail at WASSC and more generally at the joint sessions and then redraft the document according to the feedback received.

The main objective of this draft safety guide is to provide guidance on the implementation of requirements in the BSS for performing Radiological Environmental Impact Assessments (REIAs) for planned exposure situations as part of information provision by the operator, governmental decision-making and regulatory authorization processes for facilities and activities.

As a result of the application of this safety guide, REIA will be in line with the Safety Fundamentals, the BSS and other IAEA requirements, promoting a common understanding of the process, definitions and methodologies. DS427 is strongly linked to the following documents, currently in the drafting process:

<table>
<thead>
<tr>
<th>Document</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS432</td>
<td>Draft Safety Guide on Radiation Protection of the Public and the Environment</td>
</tr>
<tr>
<td>DS442</td>
<td>Draft Safety Guide on Regulatory Control of Radioactive Releases to the Environment from Facilities and Activities (revision of WS-G-2.3)</td>
</tr>
</tbody>
</table>

The DPP for this Safety Guide was approved in 2009 by the CSS, and the delays in its development were due to its link to other documents under development on matters related to the protection of the environment, i.e. ICRP Publication 124 (in press) and the Revision of the BSS (interim publication issued in 2011). The needs of the document and its challenging nature were identified from the
beginning, due to new topics to address in the Safety Standards (protection of flora and fauna), to the related approaches that are not applied uniformly across all Member States (consideration of potential exposures), and to its aim to link different frameworks and the different target audiences (nuclear regulatory versus broader environmental regulators; experts, governmental agencies, stakeholders, public).

The intended scope of the application of the document was clarified, being its aim to be used for planned exposure situations and prospective assessments for any new and existing installations “discharging” during operation. The post-closure releases from disposal facilities are outside of the scope of the document. It will be applicable to installations needing simple to complex assessments (laboratories, hospitals, radioisotopes production, research reactors, NPPs, reprocessing, etc.), for protection of the public and the environment. It was mentioned that this document is intended to be useful prior to siting, during siting and construction, prior to operation, during operation (including planning changes or periodical safety reviews), and during decommissioning. In addition, it could be used for initial hazard assessment but not for emergency planning and management. This document should not be used for retrospective assessments.

The challenges and considerations in developing the document were identified as:

1. REIA should be common to EIA (Environmental Impact Assessments) and Safety Assessments, but different regulations and/or conventions are applied to both;
2. the same document should cover protection of humans and the environment; and
3. addressing potential exposures

Regarding the first topic, the objective of this safety guide is to provide guidance for an assessment scheme for normal operations, to be used for preparing a REIA, to cover the needs of EIA and Safety Assessments for regulatory purposes.

The assessment scheme, developed in this safety guide for normal operations, uses a similar approach for humans and for the environment, both based on ICRP recommendations. The approach for humans is based on dose limits and dose constraints aimed at protecting individuals; and the parallel approach for the environment is based on reference levels aimed at protecting flora and fauna at the species population level. One of the main benefits of this scheme is the simplicity and parallel approach, focusing on exposure scenarios that would imply the best use of resources for assessment and demonstration of compliance (same experts, similar models and same monitoring means).

Whilst protection of the environment is a relatively new topic, considerable work has already been undertaken both by the ICRP, by several Member States and by the Agency and a number of publications already exist.

The assessment and control of potential exposures is a controversial issue in many Member States and there is no international consensus on how to proceed. It is intended that the safety guide should address how the evaluation should be undertaken but the selection of specific accident scenarios to be considered and the corresponding criteria would be left to individual Member States to decide.

The need for this guidance by countries embarking on nuclear power programmes was noted during discussions.

The comments from SSC’s members collected in advance of the meeting focused on:
• Agreement with the Secretariat that the document is not at the stage to be sent to MS for comment, as the companion documents, DS442 and DS432, were not ready, and committee members requested that the three documents be discussed together;

• NUSSC members suggested that WASSC should reconsider the inclusion of potential exposures in this document.

• The frameworks of the Safety Assessments vs. EIA should be clarified, mainly aiming to communicate better the results of the assessments.

WASSC members discussed at the meeting:

• The concern of NUSSC was noted; WASSC requested the Technical Officer to further develop the document, as it needs redrafting for consistency in terminology, mainly to improve communication of the results of the assessments.

• To propose to NUSSC to reserve the decision on the inclusion of potential exposures (PE) to the next meeting. In going forward, it was considered that the Safety Assessment, when developed with prospective aims should cover normal operations that include potential exposures; therefore, it seems convenient that PE be kept in the document for the time being. WASSC requested the Technical Officer to redraft the document accordingly, with a focus on improving the terminology used, to ensure consistency with existing IAEA guidance and ensure the correct terminology is used in relation to the circumstance being considered.

W.10  GENERAL SESSION

W.10.1  Feedback from WASSC members on implementation of IAEA Safety Standards

W.10.1.1  Experience in the UK

Mr S. Griffiths, WASSC member representing the UK, presented an update on the international strategy of the UK’s Office for Nuclear Regulation (ONR) for standards development and implementation.

Mr Griffiths outlined that the aim of the ONR’s strategy on regulatory matters is to:

- influence the development of the global nuclear safety and security standards by actively participating in the IAEA’s Safety Standards committees and engaging in contributing to the elaboration of such documents providing experts while drafting;

- engage with UK’s nuclear industry to influence on implementing improvements;

- work closely with international regulators, sharing experiences and liaising on relevant safety matters; and

- continuously improve the UK’s nuclear regulatory effectiveness.

The means to implement this strategy are:
• conducting a periodic review of UK guidance to inspectors against international benchmarks such as the IAEA standards;

• supporting the international regulatory peer review work of the European Commission and the IAEA, and the wider work of the IAEA and NEA, by actively engaging in their work;

• promoting continuous improvement and independent nuclear safety regulation as foundation stones; and

• enhancing regulatory intelligence.

Regarding waste management, the approach is the following:

• maintain focus on safety case assessment;

• further development of internal guidance and skills; and

• delivery of work on process to improve and integrated demonstration of waste management at a site level, following the scheme of work of the next diagram:

The Radioactive Waste Management Case (RWMC)

In the area of waste management and decommissioning, high emphasis is placed on the development of the competence of ONR staff, through specialist groups, development of a systematic approach to training across the ONR and general training on waste management. In this regard, the competency framework is being developed and mapped based on IAEA Safety Requirements, and the next step foreseen is performing a competence self-assessment and targeted training and development.
The UK-ONR is also taking great care regarding the implementation of the new Euratom BSS requirements in UK legislation on health surveillance and it is committed to making UK legislation and/or guidance consistent with IAEA Safety Requirements wherever possible.

In conclusion, the UK-ONR has given definite steps to implement the Safety Standards in an efficient, harmonized and coordinated manner.

Committee members sought clarification on the specific topic of the national review of the IAEA’s Safety Standards. In this regard, the target audience includes other governmental departments, such as other regulators (from the environment agencies) and special bodies, such as representatives of workers associations. The collection of feedback does not include NGO’s or the general public.

W.10.2 Reports from International Organizations

W.10.2.1 Latest development at the EU

Ms C. Necheva (Observer for EU) introduced the latest developments in the EU regarding implementation of WSS. The key events since last meeting of WASSC were:

- A Memorandum of Understanding between EURATOM and IAEA on nuclear safety cooperation has been signed in September 2013. It creates an enhanced framework for planning various forms of cooperation, such as expert peer reviews and strengthening emergency preparedness and response capabilities. It will allow both organizations to benefit from each other's work, avoid duplication of effort, contributing to strengthen nuclear safety worldwide.

- The implementation of the Council Directive 2011/70/Euratom, establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste have been facilitated by different means. The EU Member States (EU-MS) shall transpose the directive until 23 Aug 2013. The national programmes and the first reports of EU-MS on the implementation of the directive is due by 23 August 2015, according to Article 14.1, and every 3 years thereafter, the EU Member States have to issue an update of the report. In addition, the EU-MS are encouraged by this directive to conduct self-assessment and international peer reviews. In this regard and through collaboration with the IAEA, ENSREG is preparing guidance to EU-MS on the national reports and on the peer review approach. The European Nuclear Energy Forum (ENEF) has developed guidelines for the establishment and notification of the national programmes. This initiative was created to support the EU-MS in responding to and reporting on the EU Directive. A workshop initiated by the Working Group on the European Repository Development Organisation (ERDO), was held in 2013 in conjunction with an ENEF meeting, addressing regional repositories’ and other issues for implementing the Directive provisions at national level.

- Euradwaste '13 – 8th European Commission Conference on the Management of Radioactive Waste, was held in Vilnius, Lithuania, 14-17 October 2013, co-organised by the European Commission and the Lithuanian Ministry for Education and Science, under the auspices of the Lithuanian Presidency of the EU. All the papers and presentations are posted at the dedicated web page http://cordis.europa.eu/fp7/euratom-fission/euradwaste-2013_en.html
Following this presentation, WASSC members sought clarification on the ERDO WG, on its membership, status of the programme and on the organization of the work ahead. The project has its own web page where further information can be found.

**W.10.3 PRISMA – Generic example for a safety case**

Mr K. Moeller (WES-NSRW) introduced the PRISMA project to the WASSC members. Its name is an acronym derived from Practical Illustration and use of the Safety case concept in the Management of near-surface disposal Application and is the follow-up project to PRISM (2009-2012). The first meeting of PRISMA took place in Vienna in October 2013, and it is expected that by 2016 it will be complete. The participants were professionals from Member States who undertake technical activities related to the safety of near-surface radioactive waste disposal facilities (broadly safety specialists, managers responsible for the operation of such facilities, and members from the regulatory bodies).

One outcome of the first PRISM Project was a clear illustration of the different stages and timelines for different decisions and who is likely to be making the decisions (government, regulators or operators). Another outcome was the MASC (Matrix of Key Arguments in the Safety Case) tool. The tool lists, at a high-level, the factors that may need to be taken into account in making decisions to advance the evolution of a facility and its safety case, and the likely relative importance of the different factors at different stages. The MASC tool has been shown to be a useful tool for increasing understanding of the components and stages of evolution of a modern safety case; now Member States have asked for examples of its application.

The purpose of the second PRISMA Project is to provide examples of the application of the MASC tool. The outcome of the second PRISMA Project is not intended to be a complete ‘model safety case’ because each national and facility situation will be unique. The outcome will, however, be examples of the factors and information that need to be considered in the decision-making during the development of a safety case for a radioactive waste disposal facility. Recording the decision-making process over the different stages of the evolution, including the justifications for decisions made, is a key component of a safety case. It is also hoped that, by working through examples of the application of the MASC tool, the outcomes of the first PRISM Project can be refined and improved.

The project is foreseen to produce the following documents:

- a project report describing the PRISMA project, the process of developing example safety case content, and lessons learned;
- sets of example safety case content supporting facility development decisions;
- an improved MASC matrix; and
- an improved concept of the safety case evolution

Following Mr Moeller’s presentation, WASSC members sought clarification on the publication of the PRISM documents, and noted that several SCs for near-surface disposal facilities are available in English that might help in developing the generic SC. Notwithstanding this, these documents do not include the decisions taken at each step/stage. One option to overcome this situation is to conduct a survey. One of the WASSC members offered the option to contact the PRISM representative from his country to offer all the material supporting the licensing application existing in his country, with a complete history available.
W.10.4 Second report to WASSC on the development of a document on Intermediate Level Waste Disposal

Ms Y. Kumano (WES-NSRW) reported on the status of development of a document on the disposal of intermediate level waste.

Ms Kumano introduced the subject referring to the different disposal options identified in IAEA’s SSR-5, the Safety Requirements on Disposal of Radioactive Waste as:

- **Near surface disposal** is defined as disposal in a facility constructed on the ground surface or up to a few tens of metres below ground level. Such a facility may be designated as a disposal facility for low level radioactive waste (LLW).

- **Geological disposal** is defined as disposal in a facility constructed in a particular geological formation (e.g. in terms of its long term stability and its hydrogeological properties) at least a few hundred metres below ground level. Such a facility could be designed to receive high level radioactive waste (HLW). However, with appropriate design a geological disposal facility could receive all types of radioactive waste.

The safety requirements publication also indicates that disposal of intermediate level waste (ILW), depending on its characteristics, can carried out in facilities of different types.

A technical meeting was held on this subject in September 2013. The main aim of this TM was to share information on various national activities and discussion on common issues and topics to be addressed in the document under preparation. Meeting participants used the following documents as reference material:

- **IAEA Nuclear Energy Series NW-T-1.20**, entitled *Disposal Approaches for Long Lived Low and Intermediate Level Radioactive Waste (2009)*. It was found to be very technical and comprehensive in scope, and still current, but mainly descriptive (half of document is devoted to examples) and without providing guidance. The definitions don’t match current IAEA Safety Standards, it lacks some practical details and there are identified gaps on institutional control, timescales, and operational issues.

- **IAEA SSG-14: Geological Disposal Facilities for Radioactive Waste**

- **DS356: Near Surface Disposal Facilities for Radioactive Waste (currently in publication process, to be published as IAEA SSG-29)**

TM participants noted that NW-T-1.20 still provides up-to-date technical information on this subject, though the document is more biased to giving national examples and the safety arguments are missing. Therefore TM participants agreed that a new Safety Report should be developed on this topic, to provide information on general and specific aspects applicable to ILW disposal, including:

- legal and organizational infrastructure;
- safety approach;
- safety case and safety assessment (aspects related to timescale and depth should be properly considered);
- elements in a stepwise approach to the development of an ILW disposal facility; and
information on safety case and safety assessment based on the experience of the facilities.

The TM participants concluded at the meeting that further work will be undertaken to contribute to the development of this document, and to discuss the outcome document in a plenary meeting in November 2014, after which a decision will be taken on the type of document to publish.

WASSC members commented on the importance of ensuring that the depth of the facility is not bound to intermediate level wastes, as the depth depends on the time of isolation requested, and this defines the barriers to be applied (which are time specific and size specific).

W.10.5  Report on the results of the TM on the development, test and comparison of models for public and environmental exposure – Modelling Data for Radiological Impact Assessment Programme (MODaRIA)

Mr G. Proehl (WES-NSRW) presented background information and the results of the second Technical Meeting of the MODaRIA Programme, held in Vienna, in November 2013.

The objectives of the MODaRIA programme are to:

- Improve capabilities in radiological impact assessment (to test, compare and develop models and analyze, evaluate and compile data)
- Application of assessment methodologies in planned, emergency and existing exposure situations (for people and for the environment)
- Develop harmonized assessment tools
- Support Member States to fulfil regulatory requirements
- Provide a forum for exchange of experiences and knowledge

Mr Proehl also noted the following paragraph of the Nuclear Safety Resolution of GC57, September 2013,

Encourages the participation of Member States in the Modelling and Data for Radiological Impact Assessments (MODaRIA) programme, launched in November 2012 to foster, develop and maintain capabilities in assessing radiological impacts from radionuclides being released or extant in the environment;

Mr Proehl highlighted the identified needs for modelling as:

- requirements for assessment models, to be simple and transparent, harmonized, widely applicable, conservative, but not too pessimistic and to provide certainty with regard to legal issues; and
- sound scientific basis of assessments of radiological impacts (to understand underlying transfer mechanism and exposure processes; exploring possibilities and limitations of modelling, that are needed in any licensing process, to optimize monitoring, interpretation of monitoring results, allowing appropriate allocation of efforts for environmental monitoring).

Four themes of work and ten Working Groups were defined as follows:
Theme 1: Remediation of Contaminated Areas

WG 1 — Remediation strategies and decision aiding techniques
WG 2 — Exposures in urban environments and effect of remedial measures
WG 3 — Radiological impacts from NORM and legacy sites and remediation

Theme 2: Uncertainties and Variability

WG 4 — Analysis of radio-ecological data
WG 5 — Uncertainty from routine discharges of radionuclides
WG 6 — Environmental modelling for radioactive waste disposal facilities
WG 7 — Models for accidental tritium releases

Theme 3: Exposures and Effects on Biota

WG 8 — Transfer and exposure models for flora and fauna
WG 9 — Effects on populations of wildlife species

Theme 4: Marine Modelling

WG 10 — Dispersion and transfer in the marine environment

The subjects of WG1 to WG4 and WG10 are related to topics of the Nuclear Safety Action Plan. The methodology of work implies annual plenary meetings with Working Group meetings in between.

Mr Proehl emphasized that the adequate application of models developed and tested in MODaRIA also allow an optimized allocation of scarce monitoring resources and will help to define what, when, where and how to measure radioactivity in the environment and man, and to ensure the scientific sound interpretation of results.

The Second TM of MODaRIA was attended by 160 Participants from 45 MS, with a wide range of specializations (from Operators, Regulators, State Agencies, Technical Support Organisations, Universities and National Research Institutes).

Further information can be found at http://www-ns.iaea.org/projects/modaria/default.asp?l=116

W.11 OTHER BUSINESS


Mr S. Griffiths reported on the outcomes of the meeting held by the Working Group of WASSC on the future of the Waste Safety Standards development, held on 18 November 2013. The WG meeting was
attended by 8 participants from Canada, France, Egypt, Germany, Japan, UK and US. The WG’s main aim was to find out if there are gaps not addressed throughout the process of drafting the WSSs and produced a report and a table mapping the inputs to the WSS. This was found to be very useful by the WASSC members (please refer to Annex III for the full report of the WG).

WASSC members agreed on the following:

- To nominate two WASSC members to attend the WG meeting of NUSSC, to be held by the end of February, to discuss the Secretariat’s resolution of the Member States comments on DS462 (revision by addenda of GSR-Part 1, GSR-Part 4, NS-R-3, SSR-2/1 and SSR-2/2).

- The need to discuss any gap in the WSS after the review of the draft documents: DS452, Draft Safety Guide on the Decommissioning of Nuclear Installations (Revision of WS-G-2.1); DS468, Draft Safety Guide on Remediation process for areas with residual radioactive material (Revision of WS-G-3.1), and the draft TECDOC on guidance on management of large amounts of waste following a nuclear accident or incident.

- To go ahead with the revision of the Safety Guide SSG-15 on Storage of Spent Nuclear Fuel, taking into account the recommendations from the CS meeting held in September 2012.

- A preliminary review of the remaining waste safety guides currently under development did not identify any gaps relevant to Fukushima lessons learned that would impact on this work.

- To finalize the report of the WG on Friday 21 November 2014, and considering that the WG is of open composition, any WASSC member might participate.

WASSC members also discussed the following:

- **Strategic/forward pre-planning to cope with remediation after an accident situation:** It seems appropriate to be added to DS468. However, early development of this subject in the document on the guidance on waste management following a nuclear emergency seems also convenient and then to use this document for further development, for inclusion at SG level.

- **Capacity building:** mainly on what would be the best way to capture knowledge, to compile all expertise and feedback that were developed after an accident has occurred. It was questioned whether there would be need for specific guidance to prepare such a compilation of experience.

**W.11.2 Preparation of the Sixth Three-Year Report**

Ms Siraky introduced the draft version of the Sixth Three-Year Report as distributed to the WASSC and sought feedback from committee members on this and various items to be completed.

WASSC members recommended that the results of the WG of WASSC would be a very good resource for the finalization of the three-year report, as all the recommendations of this WG will impact on the future development of the WSS.

In addition, WASSC members pointed out the issues considered of relevance during this term, such as:

- the interface of safety and security: an important step has been added with the creation of the NSGC and the interface group, to identify the documents needing to address safety and security matters;
• the involvement of stakeholders in the communication and consultation with interested parties by the regulatory body; and

• the importance of having joint meetings with other committees. This custom has to be kept for next term, including joint meetings with NSGC, subject to the availability of meeting rooms.

Committee members will provide further inputs to the three-year report.

WASSC members congratulated and thanked the work done by the Chair and the Secretariat during the current three-year term of WASSC.

W.12 CONCLUSIONS OF THE SESSION

Mr Williams concluded the session thanking all WASSC members for the useful feedback received during the whole three-year period. In addition, he expressed that he feels privileged for having the opportunity to serve as Chair of WASSC for this term.

Mr Williams highlighted the importance for WASSC having joint meetings with the other Safety Standard Committees and the Nuclear Security Guidance Committee. He remarked that the work of WASSC is not only dedicated to reviewing waste safety documents, as of equal importance are other areas needing feedback from WASSC, such as general safety, radiation safety, nuclear safety and nuclear fuel cycle specific safety standards, that apply to waste management facilities.

In closing, it was highlighted that the active contribution of WASSC is needed on a wide range of safety standards, which reinforces the value of holding two SSC meetings per year.

Mr Williams congratulated the Secretariat for the work done with the Waste Safety Standards Committee.
RW.1 OPENING OF JOINT SESSIONS

The meeting was opened by Mr P.-S. Hahn (DIR-NSRW) who welcomed all participants to Vienna and thanked them for their strong support for the work of the Agency over the past three years. Mr Hahn noted that the Agency depends very much on the advice and expertise of the Safety Standards Committees to produce high quality Safety Standards, to ensure that these standards meet the needs of our Member States, and that they are widely disseminated and used.

Mr Hahn reported on the follow-up IAEA International Mission on Remediation of Large Contaminated Areas Off-site the Fukushima Daiichi NPS which was held in October 2013. The preliminary summary report of this mission has been made publicly available and the final report will be published in December this year. A further mission, addressing decommissioning issues, is planned for November 2013.

The Joint Convention Contracting Parties met in October this year to discuss comprehensive approaches to managing the back-end of the nuclear fuel cycle. Separately, the Contracting Parties from the Asian Region held a Regional Meeting in Gyeong-Ju, Republic of Korea, to discuss lessons learnt and share experiences, focusing mainly on the benefits of being Contracting Parties to the Convention.

Future important meetings to be held in Vienna include the Sixth International Experts Meeting “Radiation Protection following the Fukushima Dai-ichi Accident” (17-21 February 2014) and the Second International Conference on Occupational Radiation, organized by the IAEA and co-sponsored by the International Labour Organization (1-5 December 2014). Both meetings will provide the opportunity to discuss topical issues and will contribute to the further development of radiation protection at both the national and international levels.

Mr Hahn wished all members and their families a Happy Christmas and looked forward to welcoming many of them back as nominees to the next term.

France complained about the long delay at the entrance to the VIC because of the need for security screening, which resulted in the start of the meeting being delayed. This was becoming a regular occurrence and France considered that official delegates of Member States, such as members of RASSC and WASSC, should be allowed access through the staff entrance. Mr Hahn undertook to make a full report and investigate how the situation might be resolved.
On behalf of WASSC, Mr G. Williams underlined the value of joint meetings with RASSC. He noted in particular the safety guides on protection of the environment presently under development where different perspectives might exist and joint discussion will be of considerable benefit. Mr Williams also underlined the importance of reviewing the safety guides in the waste area, a priority issue for the next term.

**RW.3 ADOPTION OF THE AGENDA OF THE JOINT SESSION**

The Agenda (please refer to Annex I) was adopted with the following amendments:

1. Item RW.6.3 was not approved by NUSSC and therefore is presented for review instead of approval for submission to Member States;
2. Item RW.6.4 will be discussed on Thursday morning;
3. Item RW.7.4 is deleted as TRANSSC decided that no changes were necessary to the Transport Regulations (SSR-6);
4. Item RW.7.3 will be presented by Mr Jiang; and
5. Item RW.7.4 will be presented by Mr Kim.

**RW.4 ADMINISTRATIVE ARRANGEMENTS FOR THE MEETING**

Ms G. Siraky noted that copies of the report on the International Experts Meeting on Decommissioning and Remediation after a Nuclear Accident (IEM4) had been published and would be circulated to all participants. Other administrative arrangements had previously been covered in the separate RASSC and WASSC meetings.

**RW.5 GENERAL SAFETY STANDARDS AND RELATED ISSUES**

**RW.5.1 Feedback from the Commission on Safety Standards (CSS 34)**

Mr D. Delattre provided feedback on the recent meeting of the CSS, which reviewed the status of the long-term structure of the Safety Standards and specifically the development of a full set of safety requirements. Currently there are 119 published safety standards, with a further six established but not yet published and 50 at various stages of development. The CSS endorsed four new safety standards and five DPPs. A new website link is now available to access all published safety standards in all UN languages [http://ns-files.iaea.org/standards/iaea-safety-standards.doc](http://ns-files.iaea.org/standards/iaea-safety-standards.doc).

The CSS also discussed the harmonization of the Terms of Reference of the Committees, the IT platform for the feedback mechanism and the preparation of electronic version of the safety standards and finalization of the CSS mid-term report.
RW.5.2 Feedback from the Meeting of the Five Chairs

Mr D. Delattre summarized the items discussed at the meeting of the five chairs (of the Safety Standards Committees and the Nuclear Security Guidance Committee) as follows:

(1) In relation to the safety guide “Communication and Consultation with Interested Parties” (DS460), it is proposed to strengthen the document by including the requirements for consultation placed on the operator by the regulator as part of the safety case. Other types of communication with interested parties carried out by the operator or licensee for other purposes will be covered by publications in the Nuclear Energy Series (see agenda item RW.6.6).

(2) The Terms of Reference of the Safety Standards Committees will be harmonized, to the extent possible, with those of the Nuclear Security Guidance Committee (see agenda item RW.10.1).

(3) It is desirable to coordinate the review of comments from Member States on documents DS456, DS457 and DS462. As the lead Committee for two of these documents, NUSSC will convene a Consultants’ Meeting in Vienna at the end of February 2014. RASSC and WASSC will be invited to participate with up to two representatives each.

(4) All of the end-of-term reports of the Safety Standards Committees have been drafted for final review. An overview of the status of all safety standards and nuclear security documents will be added as an appendix.

(5) The approach proposed by the NSGC to developing guidance material on the safety-security interface for inclusion in DS419 and DS420 was discussed (see agenda items RW.6.1 and RW.6.2).

(6) The IT platform for feedback on the safety standards was discussed. This will be presented to the Safety Standards Committees in May/June 2014.

(7) As a first step towards better integration, an independent review is to be undertaken of the current structures of the five Committees, their interaction and their reporting mechanisms.

(8) Read-only access will be provided to the NUSEC website to the Safety Standards Committees for review of nuclear security documents.

(9) The recommendations arising from the OIOS review of the Transport Programme were discussed. No immediate actions are foreseen for the other Committees.

Mr G. Williams noted that the agreement that exists between the Chairs on how to deal with the safety-security interface in DS419 and DS420 is not reflected in the current drafts and he underlined the view of both RASSC and WASSC that we need “substantive text” on security in the safety standards.

Action: RASSC and WASSC to be invited to participate in the review of Member State comments on DS456, DS457 and DS462, with a deadline of 13 December 2013 for receipt of comments.

RW.5.3 Feedback from the Interface Group

Mr D. Delattre reported that, since the last meeting, the Interface Group had identified seven DPPs for safety standards (DS476, DS478, DS479, DS480, DS481, DS482 and DS483) as having an interface with security and four DPPs for nuclear security documents (NST044, NST045, NST046 and NST048) as having an interface with safety.
RW.5.4 Feedback from the Nuclear Security Guidance Committee (NSGC)

Mr I. Barraclough summarized the documents and DPPs approved and cleared at the fourth meeting of the NSGC which took place in October 2013. The Committee also decided not to proceed at this stage with three DPPs on computer security. Work is progressing on the development of a nuclear security glossary; a list of terms and definitions used in nuclear security documents has been compiled but further work is required to allow it to be published.

With regard to the safety-security interface, NSGC has proposed the establishment of an ad hoc group with equal membership from NSGC and the Safety Standards Committees. The group would review output from the Secretariat’s internal group developing guidance for Technical Officers and the results of this process would be applied to drafting of future interface documents.

The next meeting of the NSGC is scheduled for the week 16-20 June 2014 and it is proposed to hold a joint session with RASSC.

RW.6 DOCUMENTS FOR APPROVAL – SAFETY STANDARDS

RW.6.1 DS419 Draft Safety Guide: Radiation Safety in Well Logging

RW.6.2 DS420 Draft Safety Guide: Radiation Safety for Nuclear Gauges

Because of the overlapping issue of how to address the safety-security interface, both documents were discussed together.

Mr I. Gusev summarized the development process of both documents, noting that DS419 had been approved in November 2012 by both RASSC and WASSC for submission to Member States. At that time the document had not been cleared by the NSGC, which subsequently requested that much of the draft text dealing with the safety-security interface be removed. This was not acceptable to RASSC and WASSC, and the matter was referred again to the NSGC for further consideration.

Mr Gusev also reported that a total of 87 comments from members of the Safety Standards Committees had been received on the safety aspects of DS419; all are of an editorial nature and have been accepted. In the case of DS420, 170 comments were received from the five Committees; those dealing with safety issues were all of an editorial nature and have been accepted. In addition, some comments were received from the IAEA’s Incident and Emergency Centre on emergency preparedness issues in both documents and it is intended to address these before the text is sent to Member States for comment.

Ms C. George provided an overview of the discussions at the NSGC on how to address the interface between safety and security, and nuclear security considerations in safety standards. At its meeting in October 2013, the NSGC considered the same draft text of DS419 and DS420 as has been posted on the website of the Safety Standards Committees. These drafts included text on the interface between safety and security, as well as security considerations, in different sections of the two documents. NSGC members had provided several comments on the detail of the text, but their main recommendation was that all the text dealing with the safety-security interface and nuclear security should be brought together in one section in each of the documents.

The US delegate to RASSC pointed out the importance of having a “one-stop-shop” for safety and security guidance in these two documents.
RASSC and WASSC agreed that, although it was not ideal, they could accept the approach of having a separate chapter where all material relating to the interface between safety and security, and nuclear security, would be addressed. Noting that the revised text would be provided to the NSGC for “tacit approval” via e-mail, RASSC and WASSC asked that a similar process be put in place to obtain their approval prior to the documents being submitted to Member States for comment. The documents should be submitted to RASSC and WASSC only after a text agreed by the NSGC is available. It was also agreed that if any member of either Committee raised issues that were more than editorial in nature in relation to the draft new texts, DS419 and DS420 would not be sent to Member States and would be discussed in the joint session with NSGC in June 2014 as well as with WASSC at its next meeting.

**Action:** The Secretariat to provide the revised text of DS419 and DS420, as agreed by the NSGC, to RASSC and WASSC for comment.

**Action:** Subject to approval by RASSC and WASSC, the Secretariat to submit DS419 and DS420 to Member States for comment.

**RW.6.3 Draft Safety Guide: Radiological Environmental Impact Assessment, DS427**

Mr D. Telleria summarized the current status of the development of the document, which supports the safety requirements in GSR Part 3 (BSS) and GSR Part 4 on radiological impact to public and environment assessment. There is also a direct link with the safety guides “Radiation Protection of the Public and the Environment” (DS432) and “Regulatory Control of Radioactive Releases to the Environment from Facilities and Activities” (DS442). The document aims to integrate the radiological assessment undertaken as part of the authorization process with that part of the Environmental Impact Assessment process related to radiological matters. The safety guide does not address the protection of workers and post-closure releases from disposal facilities are not considered.

An assessment scheme for normal operations has been developed that uses a similar approach for humans and for the environment, both based on ICRP recommendations. The approach for humans is based on dose limits and dose constraints aimed at protecting individuals; the parallel approach for the environment is based on reference levels aimed at protecting flora and fauna at the species population level.

While protection of the environment is a relatively new topic, considerable work has already been undertaken both by the ICRP, by several Member States and by the Agency and a number of publications exist. The assessment and control of potential exposures is a controversial issue in many Member States and there is no international consensus on how to proceed. It is intended that the safety guide should address how the evaluation should be undertaken but the selection of specific accident scenarios to be considered and the correspondent criteria would be left to individual Member States to decide. The need for this guidance by countries embarking on nuclear power programmes was noted during discussions.

RASSC and WASSC considered that the document was ambitious but that it was appropriate for the Agency to develop guidance in this area; if not, due to the interest in environmental protection and nuclear accident issues, such guidance would be developed by others. There was some, but not unanimous, support for addressing potential exposures in the document. In particular, the importance of distinguishing between potential exposures and emergency exposures was underlined but no clear
view emerged on how that should be achieved. Some comments related to the need to provide guidance on the accident scenarios to be considered in evaluating potential exposures.

UNSCEAR noted the importance of the involvement of UNEP in the development of the safety guide, which builds on the holistic approach to protection of the environment adopted in the International Basic Safety Standards. Mr Telleria stated that UNEP had been involved in all Consultant Meetings to develop the document and had already indicated its wish to co-sponsor the document.

RASSC and WASSC noted the recommendation of NUSSC that potential exposures not be addressed. However, the two Committees considered they needed additional information before being able to support or reject that position. RASSC and WASSC therefore asked the Secretariat to continue development of the safety guide and to include material on potential exposures. A final decision would be made at the next meeting on whether the text on potential exposures should be retained or removed.

**Action:** The Secretariat to continue with the development of DS427 and to include material on potential exposures for consideration at the next meeting.


Mr P.P. Haridasan introduced the document, which resulted from the revision and amalgamation of five separate safety guides: RS-G-1.1, RS-G-1.2, RS-G-1.3, RS-G-1.6 and GS-G-3.2. This was a complex project and Mr Haridasan thanked the ILO for their support in the drafting and preparation of the text.

DS453 is one of the three general safety guides supporting the BSS. The restructuring has taken place in line with the approach to exposure situations contained in the 2007 Recommendations of the ICRP (ICRP 103). Some new guidance has been prepared in relation to both itinerant workers and pregnant workers. The text was developed through two Consultant Meetings, three external reviews and one internal review using specialists in each of the subject areas.

A total of 158 comments were received from members of the Safety Standards Committees, of which 100 were accepted. Several comments related to the management of controlled and supervised areas, the need for greater differentiation between management issues and technical issues and the duplication of text in different sections of the document. It was also recommended that some of the material, in particular that related to dosimetry, be transferred to annexes.

There was extensive discussion in relation to emergency workers, including military personnel. It was noted that many different types of workers fall into this category, and it was not always clear whether the dose limit for workers or the dose limit for the public should apply. Specifically, France proposed that paras. 4.71 and 4.142 should be deleted, but this was not supported by others. It was also pointed

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1 4.7. The fundamental difference between members of the public and emergency workers in an emergency exposure situation is that members of the public may receive doses unless some action is taken to prevent them, whereas emergency workers will receive doses due to specified duties assigned to them. Thus, to the extent possible, it is reasonable to continue to treat emergency workers’ exposures according to the requirements for planned exposure situations, in accordance with the graded approach, particularly in the later stages of the emergency exposure situation. The exposure of emergency workers starts with the assignment to undertake a particular action and finishes with completion of the assigned task or declaration of termination of the emergency.
out that to apply a 50 mSv dose limit for emergency workers was inconsistent with a range of 20-100 mSv for members of the public. It was noted that this issue had also been raised when discussing the draft of the safety requirements document “Preparedness and Response for a Nuclear or Radiological Emergency” (DS457) and it was important that both documents were consistent. Italy pointed out the importance of including internal exposure in dose estimates for emergency workers. USA and Indonesia urged that the system of protection for emergency workers not be unnecessarily complex.

The following points were also made for improvement of the text:

1. it should be made clear that, when appropriate and possible, individual monitoring for dose assessment is preferable to area monitoring;
2. organization of work for apprentices and students who are also itinerant workers needs further development;
3. limiting the dose to pregnant workers and unborn to 1 mSv needs to be clarified and strengthened (Belgium to provide draft text);
4. additional text on use of reference levels in relation to clearance criteria for waste generated during remediation activities should be added to para. 5.50;
5. to assist public understanding, explanatory material should be added on why the criteria for planned exposure situations cannot be used in an emergency. Because of the wide range of scenarios to be considered, the strategy is more important than the numbers; and
6. some of the text relating to remediation may be more appropriate for the safety guide “Remediation Process for Areas with Residual Radioactive Material” (DS468). The text in both documents needs to be fully consistent.

The Secretariat noted that the text must be based on what appears in the BSS and there is no indication that, in the light of the Fukushima accident, the BSS needs significant revision. At this stage the text is well developed and would benefit from input from Member States. This was supported by ILO, who expressed its appreciation to the Technical Officer for the work undertaken to develop the document in a cooperative manner.

Subject to the comments raised and being addressed, RASSC and WASSC approved the safety guide for submission to Member States.

*Action:* The Secretariat to revise the text of DS453 in line with the comments received from RASSC and WASSC and submit the document to Member States for comment.

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2 4.14. Because the exposure of emergency workers is deliberate and controlled, the dose limits for workers should be assumed to apply unless there are overriding reasons not to apply them. In terms of para. 4.15 of the BSS and GSR Part 7 [28], response organizations and employers have to ensure that no emergency worker is subject to an exposure in an emergency in excess of 50 mSv other than:

(a) For the purposes of saving life or preventing serious injury;
(b) When undertaking actions to prevent severe deterministic effects and actions to prevent the development of catastrophic conditions that could significantly affect people and the environment; or
(c) When undertaking actions to avert a large collective dose.
RW.6.5 Draft Safety Guide: Radiation Protection and Regulatory Control for Consumer Products, DS458

Mr I. Gusev introduced the document, reminding the Committees that an initial review of the comments received from Member States had been discussed at the previous meeting. Based on the discussions at that time, new annexes on national experience on justification of gemstone irradiation (provided by RASSC member from Belgium) and on radiation protection in the use of tungsten inert gas (TIG) arc welding had been added. The only additional comments received from WASSC were of an editorial nature and were accepted.

As part of the technical editing process, it was proposed to amend the title of the safety guide to “Radiation Safety for Consumer Products”. The purpose of this proposed change was twofold: firstly to achieve consistency with the titles of other similar safety guides and, secondly, to address misconceptions that arose by including the term “regulatory control” in the title. By definition, there is no regulatory control of consumer products and the regulatory control of the manufacturing process for consumer products is outside the scope of the document.

RASSC agreed to the proposed change in title of the document and approved DS458 for submission to the CSS for endorsement.

Action: The Secretariat to submit DS458 to the CSS for endorsement.

RW.6.6 Draft Safety Guide: Communication and Consultation with Interested Parties, DS460

Mr J.-R. Jubin reported that, as a result of the discussions that had taken place at the RASSC and WASSC meetings in June 2013, the Secretariat was proposing that the scope of the document should be extended to include the requirements placed on operators by the regulatory body. This proposal was not supported by NUSSC. In addition, it was confirmed that DS460 would be developed as a stand-alone safety guide but that in due course it might be incorporated into the safety guides “Organization, Management and Staffing of a Regulatory Body” (DS472) and “Regulatory Body Functions and Processes” (DS473).

A total of 181 comments had been received from members of the Committees, of which 103 were editorial and 78 were technical. Of these, 147 were accepted and 34 were rejected. The comments received resulted in many improvements in the document, including clarification of the political decision-making process and the authorization decision-making process.

Finland was critical of the overall balance in the document and pointed out that it was important to state that communication considerations should not influence safety decisions made by the regulatory body. France considered that the document needed further work and recommended that it should contain a better overview of the overall structure of consultations. France also pointed out that the purpose of consultation was to assist the decision-making process, but the ultimate responsibility for decisions remains with the regulatory body.

RASSC and WASSC were provided with insufficient time to review the proposed changes to the text resulting from the change to the scope of the document. In addition, because of the serious
reservations expressed by some members, it was decided that further work was required before the safety guide was suitable for submission to Member States.

**Action:** The Secretariat to further develop the text of DS460 in line with the change in scope and the comments received from RASSC and WASSC.

**RW.7 DOCUMENT PREPARATION PROFILES FOR APPROVAL – SAFETY STANDARDS**

**RW.7.1 Draft Safety Requirements: Safety of Research Reactors (Revision of NS-R-4), DS476**

Mr T. Hargitai (RRS-NSNI) introduced the document preparation profile for a Safety Requirements document for research reactors whose aim is to revise NS-R-4 published in 2005.

The objective of DS476 is to establish specific safety requirements for all stages of the lifetime and all activities important to safety of research reactors. The intended scope is:

- research reactors of all types, sizes and power levels;
- critical assemblies, and sub-critical assemblies;
- new research reactors and existing ones; and
- utilization, modifications and experiments.

There were no questions from WASSC and RASSC members, and both committees agreed that the document could proceed to the next development step.

**Action:** The Secretariat to submit the DPP for DS476 to the CSS for approval.

**RW.7.2 Draft Safety Requirements: Safety of Fuel Cycle Facilities (Revision of NS-R-5), DS478**

Mr V. Carr (RRS-NSNI) introduced the document preparation profile for a Safety Requirements document for fuel cycle facilities for the revision of NS-R-5 published in 2008.

The objective of DS478 is to establish specific safety requirements for new and existing fuel cycle facilities of all types and sizes at all stages of their lifetime and to identify all activities important to safety, including:

- providing a basis for safety and safety assessment;
- establishing safety requirements on regulatory supervision; and
- establishing safety requirements on design and operation, including the management of the discharges and the predisposal management of radioactive wastes during operation.

Facilities for the mining and milling of ores are not covered by the scope of DS478.
Discussion with WASSC and RASSC members after the presentation was on:

- Whether material should be kept in appendices, therefore part of the Safety Requirements, or be placed in Annexes (not part of the Safety Requirement and only for additional information or example).

- The complementary character of GSR-Part 5, the Generic Safety Requirements Part 5 on Predisposal Management of Radioactive Waste and DS478, the revision of NS-R-5 specific Safety Requirements for Fuel Cycle Facilities that includes specific requirements on nuclear safety matters applicable to facilities for predisposal management of radioactive waste.

**Action:** The Secretariat to submit the DPP for DS478 to the CSS for approval.

**RW.7.3  Draft Safety Guide: Operational Experience Feedback for Nuclear Facilities (Revision of NS-G-2.11), DS479**

Mr F. Jiang (OSS-NSNI) introduced the document preparation profile for the revision of NS-G-2.11, the draft Safety Guide on Operational Experience (OE) Feedback for Nuclear Installations (DS479), extending the guidance from NPPs (within the scope of NS-G-2.11) to Nuclear Installations.

The objectives of the document are:

- to provide guidance for the establishment or enhancement of an OE feedback system from design to decommissioning of a nuclear installation at different levels: operating organization, regulatory, national and international levels; and

- to bring together common elements that typically constitute an effective OE feedback system.

The document will also incorporate the implications of the TEPCO’s Fukushima-Daiichi NPP’s accident, the more relevant ones being to emphasize:

- the role of management and their commitment to the utilization of the OE program in enhancing safety performance and safety culture;

- management expectations on outcome of the identification, screening, analysis and each element of the OE process; and

- management commitment to the timely implementation of corrective actions from relevant operating experience.

39 Comments from SSC’s members have been received from six Member States and one International Organization, of which 33 have been accepted for further improvement of the DPP.

RASSC and WASSC members commented on the following:

- The centralized level or national level of the registry of OE, recognizing that many of the OE should be collected at that level, while there are others to be kept at the utility level, therefore the text should be kept flexible regarding this matter.

- Expanding the current guide, from NPP’s to other Nuclear Installations (NI’s) would imply that all wider aspects in other fields of the OE be included.
One of the WASSC members committed to providing the national experience in fields other than NPPs, for the development of the document. The committee members supported the document to proceed to next step of development.

**Action:** The Secretariat to submit the DPP for DS479 to the CSS for approval.

**RW.7.4  DPP for a Draft Safety Guide on Severe accident management programme for Nuclear Power plants (revision of NS-G-2.15, published in 2009), DS483**

Mr M. Kim (SAS-NSNI) presented the document preparation profile for the revision of the document NS-G-2.15, which is one of the safety guides selected for the pilot exercise to assess the impact of changes to Safety Requirements in the light of the lessons learned from the TEPCO’s Fukushima-Daiichi NPP’s accident.

The conclusions of the pilot exercise on NS-G-2.15 were presented to the 35th NUSSC Meeting, the relevant ones being:

- NS-G-2.15 (2009) was linked to NS-R-1 (2000), therefore it needs a thorough revision for maintaining consistency with the requirements in GSR-Part 4, SSR-2/1 and SSR-2/2.

- A revision based upon Fukushima lessons learned including accident management for spent fuel storage is needed, taking into account the outcomes of the International Experts’ Meeting (IEM 7) on Severe Accident Management being held in March 2014.

These conclusions will drive the revision of this safety guide. Some examples of the lessons learned to be incorporated include:

- enhancing radiation protection function, in particular:
  - interfaces between the organizations foreseen to provide support in case of emergencies;
  - procedures for venting; and
  - identification of the radiation protection personnel that might be necessary for accident management functions.

- enhancing spent fuel pool instrumentation for monitoring and control and to assist cooling capability.

44 comments (from NUSSC and NSGC) were received from 5 Member States and 2 International Organizations. Of these, 34 were accepted, 5 were accepted with modifications; and 5 rejected.

One WASSC member questioned if the management of wastes related to on-site consequences of the accident following the emergency phase after a severe accident would be in the scope of the document. This relates to early clean-up of the site and treatment of effluents recovered from leakages of damaged facilities. Guidance on these topics might be integrated to forward emergency planning (anticipation through design and operational procedures) with the aim to facilitate the implementation of such operations when needed. In case this topic is not in the scope of this document, it is important to note that it should be addressed in the waste safety-related documents.

The committee members supported the document proceeding to the next step of development.
Action: The Secretariat to incorporate the comments received to the DPP for DS483 and to submit it to the CSS for approval.

RW.8 DOCUMENTS FOR CLEARANCE – NUCLEAR SECURITY SERIES


Mr. D. Dudenhoeffer (NSNS-IMS) introduced the draft implementing guide and presented its objectives and the comments received.

The objectives of the document are to:

- provide guidance on implementing the principle of confidentiality and on the broader aspects of information security; and
- assist States in bridging the gap between existing government and industry standards on information security and nuclear security.

The document provides guidance on:

- establishing an effective framework for ensuring the confidentiality, integrity and availability of sensitive information including the necessary legislation and regulations;
- identifying information that may be considered as sensitive information;
- considerations for the sharing and disclosure of sensitive information; and
- guidelines and methodologies for ensuring confidentiality, integrity and availability.

No comments on the document were received from WASSC and RASSC. NUSSC and NSGC provided 39 comments, of which 17 were accepted and 11 were accepted with modifications.

Committee members then queried the Technical Officer on the next steps of development of the document and on its scope. Mr Dudenhoeffer explained that the aim of the document is not to give guidance on the development of security infrastructure, but rather to protect confidentiality of nuclear facilities and installations. Overall, the standard will provide guidance to MS on the identification of the information to be treated as confidential.

Both RASSC and WASSC committee members agreed for the document to proceed to the next step of development.
RW.9  DPPS FOR CLEARANCE


Ms C. George (NSNS – MAFA) introduced the Document Preparation Profile for clearance, by providing background information on the history of development of related security documents. The proposed document is intended to revise NSS 11, an implementing guide on Security of Radioactive Sources, published in 2009. It will build on NSS 20 – Nuclear Security Fundamentals and NSS 14 – Nuclear Security Recommendations on Radioactive Material and Associated Facilities, and therefore the document scope will be expanded from radioactive sources to cover radioactive material and associated facilities. Ms George also presented the rationale for the decision taken by NSGC for the revision of NSS 11, to make it consistent with the approach taken for Nuclear Security Series (NSS) documents under development, and to further develop specific concepts where further guidance is needed (security management, security plans, and threat assessment were some of the examples noted).

The proposal is to broaden the scope of NSS 11 to include all (non-nuclear) radioactive material in use and storage. This expansion will require consideration of threats associated with unsealed radioactive material, and categorization of unsealed radioactive material in order to establish a graded security approach. How to address the issue of categorization for all radioactive material was identified as a challenging topic, including unsealed sources and radioactive waste.

Ms George then presented the proposed table of contents for the revised document, and the comments received from NUSSC and NSGC, including their resolution. Most of the comments were related to the proposed expansion of scope of the document and the categorization of material for security purposes. The need for ensuring a proper relationship between classification of radioactive material for security purposes, based on RS-G-1.9, categorization of radioactive sources, and the related classification for waste management purposes in GSG-1, Classification of Radioactive Waste was also highlighted.

RASSC and WASSC members then commented on the application of the A/D criteria for categorization of sealed sources (developed in RS-G-1.9) to open sources in medical applications. Committee members recognized the convenience and usefulness of NST048 for the security of radioactive material in use and storage and for waste management. In addition, WASSC stressed the need to be involved in the development of NST048 to ensure that the categorization to be developed in this document is compatible with the classification used for waste management purposes.

The DPP was already cleared by NUSSC, and approved by the NSGC. WASSC and RASSC agreed also to clear the document for further development.

RW.10  TERMS OF REFERENCE

RW.10.1 Terms of Reference for the Safety Standards Committees 2014-2016

Mr D. Delattre (SSPU-SSCS) introduced the revised Terms of Reference (TOR) for the Safety Standards Committees, explaining the rationale of various amendments to the previous TOR’s, mainly due to its harmonization with the TOR of the Nuclear Security Guidance Committee. Mr Delattre also expressed that the Note Verbale calling for the reconstitution of the SSC’s will most likely call for
nominations for a 4-year term just for this occasion, due to the opportunity to have the terms of all committees — SSC’s and NSGC — synchronized by the time of their renewal in January 2018.

Committee members sought clarification of the details of the revised TOR for SSC’s, in particular for the outreach to stakeholders to get feedback on the application of safety standards.

**RW.11 GENERAL SESSION**

**RW.11.1 Proposal for Safety Standards developments from the Russian Federation**


Ms Nepeyipivo indicated that the proposals for the development of new IAEA Safety Standards have been developed by the Federal Service on Customers' Rights Protection and Human Well-being Surveillance (Rospotrebnadzor) – the Russian regulatory authority in the field of radiation protection. They were proposed following the implementation program of the IAEA Action plan on nuclear safety, taking into account Fukushima NPP accident lessons, as well as the experience of the Chernobyl accident, with the aim to provide a common international approach to the issues considered.

The proposal contains four items:

a) Development of criteria for decision-making during transboundary transportation of people, freights and vehicles with surface radioactive contamination in case of a large-scale radiation accident, based on the following considerations:
   - during transboundary transportation of people, freight and vehicles, including airplanes, ships and trains, that are contaminated in the territory of the states which received radioactive contamination due to an accident involving radioactive material;
   - decontamination of contaminated objects may lead to the generation of radioactive waste in any of the countries receiving a vehicle, passengers or freight; and
   - it is necessary to have unified approaches which would become a basis for the corresponding national regulatory documents.

b) Management of radioactive waste generated during decontamination of people and decontamination and disposal of freight and vehicles arriving from states affected in case of a large-scale radiation accident; based on the following considerations:
   - a large-scale accident in a country could lead to arrival of people, ships and freight having radioactive contamination from affected states to neighbouring countries;
   - the need for their decontamination or disposal of freight and vehicles could lead to generation of radioactive waste; and
   - it is necessary to identify this category of radioactive waste and develop recommendations for specific management considering legal regulatory and economic aspects.
c) Radiation protection of the public in case of a radiation accident at a non-radioactive facility leading to radioactive contamination of an area, including criteria for decontamination of the territory of a populated area, residential and social buildings, and child welfare institutions; based on the following considerations:

- in case of a radiation accident at a non-radioactive facility (melting of radioactive source in steel mill, etc.), there seems a lack of specific safety criteria for implementing protective actions, including decontamination;

- such criteria may include the rate of gamma radiation dose, levels of surface contamination of buildings, roads and residential apartments; and

- reasonable compromise is necessary between implementation of radiation protection measures for the public and disturbance of normal life.

d) Regulatory control of use of examination equipment which may cause irradiation of people, based on the following considerations:

- a broad use of X-ray examination equipment leads to additional irradiation of a significant part of the population;

- as the use of X-ray examination facilities extends, the scale of the problem increases due to the differences in national restrictions on using such systems; and

- it is necessary to regulate the use of X-ray examination facilities, including during transboundary transportation on an international basis.

Committee members queried if any gap analyses were conducted in advance of this presentation. It was further clarified that the material of the proposal was received very close to the date of the meetings (previous week), without any possibility of performing a gap analysis.

Committee members then continued discussing specific points raised in the proposals, in particular the management of RW after accidents. There is no specific SG on this matter; the existing SGs are for RW generated in normal operations of nuclear facilities. Notwithstanding this, once RW is generated, it implies that it should be managed as RW, whatever its origin. This also implies taking measures for its disposal. The management of RW after an accident will be dealt with while revising GS-R-2 (DS457), WS-G-3.1 (DS468), and developing specific documents (Ref: Draft TECDOC on “Management of large amounts of radioactive waste arising from incidents or from remediation activities”).

Committee members requested the proposals be made available on the webpage, to be able to provide feedback on them.

Committee members acknowledged that the proposals highlight the gaps existing in the safety requirements or guides, with the aim of developing guidance of safety or technical nature, if considered needed.

Topics considered relevant, for discussion at next meeting are:

- the need of specific guidelines on the surface contamination for goods being non-food in case of a large-scale radiation accident;

- the need of practical approaches to the decontamination of such goods; and
transboundary movement of contaminated goods after an accident and the associated exposure of workers.

For the case of non-medical exposures, document DS401 was referred to for the justification of such practices. DS401 is an established Safety Guide, in the publication process and available at the “complete collection of Safety Standards” [please refer to the right side of the web page, where indicates “Download all Safety Standards in one file, for each UN languages]

Committee members considered that such topics be dealt with during the next term of the SSC’s and also raised the need to take into account the outcomes of the International Experts’ Meeting (IEM 6) on Radiation Protection after the Fukushima Daiichi Accident being held in February 2014. RASSC and WASSC agreed on the actions indicated below:

**Actions:**

a) The Secretariat will make the proposal available to SSC members at the SSC’s web folders;

b) RASSC and WASSC members to comment on the appropriateness of the proposals to the Secretariat by 28 February 2014; and

c) the Secretariat to report on the results of the comments from RASSC and WASSC and the suggestions from the Secretariat at the forthcoming SSC’s meetings.

**RW.12 CLOSING OF THE MEETING**

**RW.12.1 Any other business**

There was no other business to discuss.

The only point made by WASSC members was to ask the Secretariat to look for the possibility to have meeting rooms available to meet with RASSC at the forthcoming meeting during the week starting on 16 June 2014. The Secretariat informed that efforts will be made to make a meeting room available during that week and will inform the WASSC and RASSC members accordingly.

**RW.12.2 Conclusions of the Joint Session**

Mr Williams and Mr Massera, Chairs of WASSC and RASSC, concluded the meeting recognizing that it was not only the closure of the meeting, but also the finalization of this term of both committees. They expressed that they were pleased to work with both committees during the past three years, with the Member States delegates and observers from International Organizations. They also conveyed that they felt privileged to be chairs of both SSCs, thanked delegates for the wide participation and contribution, recognizing the efforts made by the SSCs members. They also expressed that they look forward to the next term with many of the current members being re-nominated. They also thanked the Secretariat for the excellent support received.

Mr Pinak, on behalf of the Secretariat, thanked Chairs, Member States’ delegates and observers from International Organizations, for their involvement in both Safety Standards Committees and for the advice given to the Agency for the benefit of the Safety Standards development, revision and
implementation. He expressed that the Agency is looking ahead; as there are many cross-cutting topics and noted that radiation and radionuclides might cross borders. He stressed that the international cooperation on the development and implementation of Safety Standards are mutually beneficial and warrants our best efforts.
ANNEX I TO THE WASSC REPORT:

36th Meeting of the Waste Safety Standards Committee (WASSC)

19 November 2013, Vienna

Press Room, M Building, VIC

DRAFT AGENDA

10:00 – Tuesday, 19 November 2013

<table>
<thead>
<tr>
<th>W.1.</th>
<th>Opening of WASSC meeting</th>
<th>G. Bruno (A/SH-WES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>W.2.</td>
<td>Chairman’s remarks</td>
<td>G. Williams</td>
</tr>
<tr>
<td>W.3.</td>
<td>Adoption of agenda for the WASSC Meeting</td>
<td>For approval G. Williams</td>
</tr>
<tr>
<td>W.4.</td>
<td>Administrative arrangements for the meeting</td>
<td>For information G. Siraky</td>
</tr>
<tr>
<td>W.5.</td>
<td>Report from 35th meeting</td>
<td>For approval G. Siraky</td>
</tr>
<tr>
<td>W.6.</td>
<td>Status of actions arising from WASSC35</td>
<td>For information G. Siraky</td>
</tr>
<tr>
<td>W.7.</td>
<td>Waste Safety Standards status and future steps</td>
<td>For information G. Siraky</td>
</tr>
<tr>
<td>W.8.</td>
<td>Review of documents for approval</td>
<td></td>
</tr>
<tr>
<td>W8.1</td>
<td>DS441 Draft Safety Guide: Construction for Nuclear Installations</td>
<td>For approval for submission to CSS F. Jiang</td>
</tr>
<tr>
<td>W.9.</td>
<td>Discussion on documents</td>
<td></td>
</tr>
<tr>
<td>W9.1</td>
<td>DS427 Draft Safety Guide on Radiological Environmental Impact Assessment</td>
<td>For discussion D. Telleria</td>
</tr>
<tr>
<td>W.10.</td>
<td>General session</td>
<td></td>
</tr>
<tr>
<td>W.10.1</td>
<td>Feedback from WASSC members on implementation of IAEA Safety Standards</td>
<td>For information WASSC members</td>
</tr>
<tr>
<td>W.10.1(a)</td>
<td>Experience in UK</td>
<td>S. Griffiths</td>
</tr>
<tr>
<td>W.10.2</td>
<td>Reports from International Organizations</td>
<td>For information WASSC Observers</td>
</tr>
<tr>
<td>W.10.2(a)</td>
<td>Latest developments at the EU</td>
<td>C. Necheva</td>
</tr>
<tr>
<td>W.10.3</td>
<td>PRISMA – generic example for a safety case</td>
<td>For information K. Moeller</td>
</tr>
</tbody>
</table>
W.10.4  2nd Report to WASSC on the development of a document on Intermediate Level Waste Disposal

W.10.5  Report on the results of the TM on the development, test and comparison of models for public and environmental exposure – Modelling data for Radiological Impact Assessment Programme (MODARIA)

W.11.  Other Business

W.11.1  Feedback from the WG of WASSC on the future of the WSSs development

W.11.2  Preparation of the Sixth Three-Year Report

W.12.  Conclusions of the session
### AGENDA

#### 35th Meeting of the Radiation Safety Standards Committee (RASSC)  
#### 36th Meeting of the Waste Safety Standards Committee (WASSC)

**20-21 November 2013, Vienna**  
**Board Room C, C Building, VIC**

**RASSC/WASSC Joint Session**

**09:00 - Wednesday 20 November 2013**

<table>
<thead>
<tr>
<th>RW1</th>
<th>Opening of Joint Session</th>
<th>P. S. Hahn, DIR-NSRW</th>
</tr>
</thead>
<tbody>
<tr>
<td>RW2</td>
<td>Chairman’s Comments</td>
<td>G. Williams/G. Massera</td>
</tr>
<tr>
<td>RW3</td>
<td>Adoption of the Agenda of the Joint Session</td>
<td>G. Williams/G. Massera</td>
</tr>
<tr>
<td>RW4</td>
<td>Administrative Arrangements for the Meeting</td>
<td>G. Sirak/T. Colgan</td>
</tr>
</tbody>
</table>

**RW5. General Safety Standards and Related Issues**

<table>
<thead>
<tr>
<th>RW5.1</th>
<th>Feedback from the Commission on Safety Standards (CSS34)</th>
<th>For information</th>
<th>D. Delattre</th>
</tr>
</thead>
<tbody>
<tr>
<td>RW5.2</td>
<td>Feedback from the Meeting of the Five Chairs</td>
<td>For information</td>
<td>G. Williams/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>G. Massera</td>
<td></td>
</tr>
<tr>
<td>RW5.3</td>
<td>Feedback from the Interface Group</td>
<td>For information</td>
<td>D. Delattre</td>
</tr>
<tr>
<td>RW5.4</td>
<td>Feedback from the NSGC</td>
<td>For information</td>
<td>I. Barraclough</td>
</tr>
</tbody>
</table>

**RW6. Documents for Approval - Safety Standards**

| RW6.1  | DS419 Draft Safety Guide: Radiation Safety in Well Logging   | For approval        | I. Gusev   |
|        |                                                                | for submission      |             |
|        |                                                                | to Member States    |             |
|        |                                                                | for submission      |             |
|        |                                                                | to Member States    |             |
| RW6.3  | DS427 Draft Safety Guide:                                    | For review          | D. Telleria|
|        |                                                                |                     |             |
| RW6.5 | DS458 | Draft Safety Guide: Radiation Protection and Regulatory Control for Consumer Products | For approval for submission to the CSS | I. Gusev |
| RW6.6 | DS460 | Draft Safety Guide: Communication and Consultation with Interested Parties | For approval for submission to Member States | J.-R. Jubin |

**RW7. DPPs for Approval - Safety Standards**

| RW7.1 | DS476 | Draft Safety Requirements: Safety of Research Reactors (revision of NS-R-4) | For approval for submission to the CSS | T. Hargitai |
| RW7.2 | DS478 | Draft Safety Requirements: Safety of Fuel Cycle facilities (revision of NS-R-5) | For approval for submission to the CSS | V. Carr |
| RW7.3 | DS479 | Draft Safety Guide: Operational Experience Feedback for Nuclear Facilities (revision of NS-G-2.11) | For approval for submission to the CSS | F. Jiang |
| RW7.4 | DS483 | Draft Safety Guide: Severe Accident Management Programme for Nuclear Power Plants | For approval for submission to the CSS | M.Kim |

**RW8. Documents for Clearance - Nuclear Security Series**


**RW9. DPPs for Clearance - Nuclear Security Series**

| RW9.2 | NST048 | Draft Implementing Guide: Security of Radioactive Material in Use and Storage and of Associated Facilities | For clearance | C. George |
**RW10. Terms of Reference**

| RW10.1 | Terms of Reference for the Safety Standards Committees 2014-2016 | D. Delattre |

**RW11. General Session**

| RW11.1 | Proposal for Safety Standards developments from the Russian Federation | For discussion | M. Nepeypivo |

**RW12. Closing of the Meeting**

| RW12.1 | Any other business | G. Williams/G. Massera |
| RW12.2 | Conclusions | G. Williams/G. Massera |

**Dates of future meetings**

- **35th CSS meeting**: 7 – 11 April 2014
- **36th RASSC**: 2-6 June 2014
- **37th WASSC**: 23-27 June 2014
- **37th NUSSC**: 30 June – 4 July 2014
- **28th TRANSSC**: 
- **5th NSGC**: 16-20 June 2014
- **37th RASSC**: 10-14 November 2014
- **38th WASSC**: 17 - 21 November 2014
- **38th NUSSC**: 24-28 November 2014
## ANNEX II to the WASSC REPORT:

**STATUS OF ACTIONS FOLLOWING 35\textsuperscript{th} WASSC**

### WASSC SESSIONS

<table>
<thead>
<tr>
<th>ITEM AG</th>
<th>ACTION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>W8.1</td>
<td>DS433 agreed to be sent to CSS for approval of publication</td>
<td>DS433 endorsed for publication by CSS34</td>
</tr>
<tr>
<td>W9.1</td>
<td>DPP for DS477, WASSC agreed that DPP can be sent to CSS after incorporating their comments, considering NUSSC comments. TRANSSC and NSGC comments to be considered by correspondence. Chairs to be consulted in case of conflicts with agreed way forward with WASSC.</td>
<td>DPP for DS477 was approved by CSS34, with the tile proposed by WASSC</td>
</tr>
<tr>
<td>W10.1</td>
<td>DS450, WASSC agreed that this doc can be sent to CSS after incorporating their comments, for publication approval</td>
<td>DS450 endorsed for publication by CSS34</td>
</tr>
<tr>
<td>W10.2</td>
<td>DS447, WASSC agreed that this doc can be sent to Member States, after incorporating their comments, with request to consider adding facility-specific information</td>
<td>DS447 sent to MS comments with due date 31 December 2013</td>
</tr>
<tr>
<td>W10.3</td>
<td>DS448, WASSC agreed that this doc can be sent to Member States, after incorporating their comments, with request to consider adding facility-specific information</td>
<td>DS448 sent to MS comments with due date 31 December 2013</td>
</tr>
</tbody>
</table>
| W11.2   | a) To share document of the WG on DPCSC on the WASSC web site  
b) WASSC members to provide their feedback to the Secretariat with view of the incorporation of para. 1.12.2 and 1.12.3 of “Guidance for preparation of a safety case for a dual purpose cask containing spent fuel” into SSG-15 as an ANNEX | Implemented  
No comments received by the TO |
| W12.3   | WASSC requested to reconvene the WG of WASSC to:  
• Extract, from the IEM4 recommendations, inputs to the Waste Safety Guides;  
• Review the previous examination on the Safety Requirements on WS at the light of current knowledge of the lessons learnt from FA and recommendations from the IEM4  
• recommend way forward for WASSC on incorporating lessons learnt to Safety | Implemented  
WG met on Monday 18 Nov 2013 |
<p>| Requirements and Safety Guides, and to identify any gaps in the current system of Waste Safety Standards |
| WASSC members to provide the Secretariat with the names of the WG members |
| Options for dates of meetings: |
| September 2-6 |
| October 7-11 |</p>
<table>
<thead>
<tr>
<th>ITEM AG</th>
<th>ACTION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RW6.1</td>
<td>DS450 agreed to be sent to CSS after SSC’s comments incorporated</td>
<td>DS450 endorsed for publication by CSS34</td>
</tr>
<tr>
<td>RW6.2</td>
<td>DS456 agreed to be sent to Member States for comments</td>
<td>DS456 sent to MS comments with due date 27 December 2013</td>
</tr>
<tr>
<td>RW6.3</td>
<td>DS457 agreed to be sent to Member States for comments</td>
<td>DS457 sent to MS comments with due date 20 November 2013</td>
</tr>
<tr>
<td>RW6.4</td>
<td>DS462 agreed to be sent to Member States for comments</td>
<td>DS462 sent to MS comments with due date 4 December 2013</td>
</tr>
<tr>
<td>RW6.5</td>
<td>DS447 agreed to be sent to Member States with the request to provide comments indicating specific guidance to facilities</td>
<td>DS447 sent to MS comments with due date 31 December 2013</td>
</tr>
<tr>
<td>RW6.6</td>
<td>DS448 agreed to be sent to Member States with the request to provide comments indicating specific guidance to facilities</td>
<td>DS448 sent to MS comments with due date 31 December 2013</td>
</tr>
<tr>
<td>RW7.1</td>
<td>DPP for DS472 agreed to be sent to CSS after SSC’s comments incorporated</td>
<td>DPP for DS472 was approved by CSS34, Implemented</td>
</tr>
<tr>
<td>RW7.2</td>
<td>DPP for DS473 agreed to be sent to CSS after SSC’s comments incorporated</td>
<td>DPP for DS473 was approved by CSS34,</td>
</tr>
<tr>
<td>RW7.3</td>
<td>DPP for DS474 agreed to be sent to CSS with comments of SSC’s incorporated</td>
<td>DPP for DS474 was approved by CSS34,</td>
</tr>
<tr>
<td>RW7.4</td>
<td>DPP for DS475 agreed to be sent to CSS</td>
<td>DPP for DS475 was approved by CSS34,</td>
</tr>
<tr>
<td>RW8.1</td>
<td>DPP for NST020 cleared for next step of development</td>
<td>On-going</td>
</tr>
<tr>
<td>RW8.2</td>
<td>DPP for NST041 cleared for next step of development</td>
<td>On-going</td>
</tr>
<tr>
<td>RW12.3</td>
<td>TOR for the Safety Standards committees for next term (posted on SSCs web folder drafts for comment): comments on it from SSC members are welcome</td>
<td>Implemented</td>
</tr>
</tbody>
</table>
ANNEX III to the WASSC REPORT:

Report of the meeting of the WG of WASSC

18 and 21 November 2013

VIC, Meeting Room M0E05 / Press Room

Proposals for the WASSC36 meeting

WASSC will nominate a minimum of two members to attend the NUSSC working group in February to review the resolution by the Secretariat of the Member States comments on DS 462 with particular relevance to resolution of comments from Member States in relation to SSG-15. An important consideration for WASSC is to avoid unnecessary delay in starting the revision process for SSG-15 by addendum.

Work is in hand to develop a TECDOC on large amounts of waste following an accident. This work will inform future decisions concerning any additional guidance to be produced. The working group reinforced that this integration is needed as gaps exist in this area which may be addressed by the detail in the TECDOC, or may require additional guidance, and that recommendations come back to WASSC at its meeting next year.

Specific guidance may be required on:

- Strategic planning for accident recovery (IEM4 recommendation), setting of reference levels and planning for disposal of accident waste.
- Guidance on a generic safety case for waste management after an accident and acceleration of licensing (if not covered in DS 468).
- Guidance on stakeholder involvement in planning disposal because such involvement is important to achieve public acceptance. Adequate guidance is needed on regulatory requirements for stakeholder consultation in forward planning and development of the safety cases for remediation and disposal. The regulatory decisions should be informed by stakeholder input with the final decision made by the regulatory body based only on safety reasons.

The working group used the attached table to provide some structure for the discussion and to identify potential gaps that would have an impact on the future work programme. In reviewing this table the status of existing documents was taken into account.

The working group endorsed the advice given by the last Working Group review in 2011 as still being appropriate in terms of areas of emphasis and future examination as part of the forward work programme. One particular feature was the need to ensure that decommissioning following an accident and on-site waste management resulting from stabilisation and decommissioning in light of Fukushima was adequately addressed. The safety guide DS452 is currently under drafting and due for review by WASSC and Member
States during the next term.

Current drafting of a Safety Guide on Decommissioning of Nuclear Installations, DS452, should draw upon any information available in a proposed Safety Report (to be developed) for decommissioning of a damaged reactor.

There is a gap in terms of the guidance in respect of strategic options and choices with reference to severe accidents [or equivalent for NFCF] and planning that needs to be reviewed. There is guidance that has been produced but it does not always relate the safety case structure needed for the situation. Essentially it is possible to plan for a general approach but guidance is needed on development of the safety case, accelerated licensing and options for local disposal as examples [Note: Reference to the document under development on guidance on waste management following a nuclear emergency].

The draft Safety Guide on Remediation Process for Areas with Residual Radioactive Material, DS 468, does not fully address the management of on-site wastes arising or the planning for potential waste arisings in terms of types and forms following an accident. This is a potential gap and requires further consideration. It is possible that for normal operations this could be covered by further guidance on safety case improvement. [NOTE: it should be recognized that this seems reasonable, as DS468 deals with remediation and not with RWM - there is a need to also refer to waste generated on-site and off-site?].

The issue of the possibility of an accelerated license as noted by the last Working Group is still an area that requires consideration within the existing document structure. For the future there may be a need for specific guidance [NOTE: this will be covered by the TECDOC under development on guidance on waste management following a nuclear emergency].

WASSC may like to initiate or cooperate with others to establish expertise needed to deal with the impact of severe accidents. This should also include capacity requirements based on experience of severe accidents. Potentially this may include further TECDOC development or guidance.

In this regard, the revision of the Safety Guide SSG-15 on Storage of Spent Nuclear Fuel can start soon after the revision of the MS comments on DS462 is done.

IEM 4 sets out forward planning as a key issue. WASSC needs to consider the best way of addressing this recommendation and establishing the need for TECDOCs or safety reports during its next term. As this is developed, there may be a need for appropriate guidance.

A review of the remaining waste safety guides currently under development did not identify any gaps relevant to Fukushima lessons learned that would impact this work.

Another issue for consideration is adequate guidance on capacity building based upon the lessons learned from the TEPCO Fukushima-Daiiichi Accident in terms of management and technical expertise needed to fully address and sustain remediation, waste management and decommissioning.
TABLE - Mapping WSSs and related SSs for lessons learnt from the TEPCO’s Fukushima-Daiichi NPP Accident

<table>
<thead>
<tr>
<th>Documents/situation</th>
<th>SFM</th>
<th>RWM (predisposal)</th>
<th>RWM (disposal)</th>
<th>Decommissioning</th>
<th>Remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Requirements</td>
<td>NS-R-5 (DS478)</td>
<td>GSR-Part5</td>
<td>SSR-5</td>
<td>GSR-Part 6 (DS450)</td>
<td>BSS</td>
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<td></td>
<td>GSR-Part5</td>
<td>BSS</td>
<td>BSS</td>
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<td>GSR-Part4 (DS462)</td>
<td>GSR-Part4 (DS462)</td>
<td>GSR-Part4 (DS462)</td>
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<tr>
<td></td>
<td>GSR-Part 7 (DS457)</td>
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<tr>
<td>Covering the following topics</td>
<td></td>
<td>SSG-3 (DS284)</td>
<td>SSG-14 (DS334)</td>
<td>DS403</td>
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<td></td>
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<td>(2013)</td>
<td>(DS355)</td>
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<td>SSG-23 (DS355)</td>
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<td>(Planned exposure situation)</td>
<td>DS474 &amp; GSG-2</td>
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<td>Existing Exposure situation</td>
<td>N/A</td>
<td>N/A</td>
<td>SC needed under existing exposure situation (please refer to large amount TECDOC)</td>
<td>DS452 Decommissioning of a damaged reactor after an accident (SRep)</td>
<td>DS468 (Rev of WS-G-3.1)</td>
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<td>Reassessments/Stress Tests/Multiple facilities</td>
<td>Rev-SSG-15 SR under development (Carr)</td>
<td>DS447 &amp; DS448 SR under development (Carr)</td>
<td>Review (?) SSG-29 (DS356) SSG-14 (DS334) SSG-23 (DS355)</td>
<td>DS452</td>
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<td>Severe Accident Management</td>
<td>DS483</td>
<td>DS483 ?</td>
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<td>Strategic planning?</td>
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<td>Large amount of wastes after accident</td>
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<td>SR or TECDOC under development</td>
<td>On-site management?</td>
<td>Off-site management?</td>
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WORKING GROUP OF WASSC
AGENDA
18 and 21 November 2013
Meeting Room M0E05/Press Room, VIC, Vienna,

Monday 18 November 2013, 9:30

1. Opening of the meeting G. Bruno
2. Statement by the Chairman G. Williams
3. Introduction of participants All Participants
4. Review and adoption of Agenda G. Williams
5. Review and adoption of Provisional Terms of Reference G. Williams
6. Introduction of Working and Information Papers G. Siraky
7. Discussion of work methods All
8. Review of the previous WG report findings/conclusions All
9. Review of gaps identified
   a. Waste arising following severe accident and its future management and disposal, including guidance on acceleration of licensing, by Y. Kumano
   b. Remediation guidance and links to emergency planning – transition issues, by S. Nestoroska
   c. Review of WS-G.3.1 “Remediation Process for Areas Affected by Past Activities and Accidents” and assess the need for further guidance relevant to existing exposure situations and accident recovery(Ref: IEM4 findings), by J. Rowat
10. Impact of stress tests undertaken by MS
    b. Identification of need for work streams to identify gaps
    c. Consideration of spent fuel storage
11. Review of current forward programme for WASSC to identify synergies
12. Agree updated work programme for next term of WASSC and recommendations to Secretariat
13. Meeting Report All
14. Meeting Close G. Williams
Working Group members

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>F. Besnus</td>
<td>IRSN, France</td>
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<tr>
<td>L. Camper</td>
<td>NRC, USA</td>
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<tr>
<td>P. Daughty</td>
<td>CNSC, Canada</td>
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<td>M. Dionisi</td>
<td>ISPRA, Italy</td>
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<td>M.A. Geleel</td>
<td>ENRRA, Egypt</td>
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<td>S. Geupel</td>
<td>GRS, Germany</td>
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<td>S. Griffiths</td>
<td>ONR, UK</td>
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<td>B. Hedberg</td>
<td>Sweden</td>
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<td>K. Hioki</td>
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<td>K-L. Hutri</td>
<td>STUK, Finland</td>
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<tr>
<td>G. Williams</td>
<td>ARPANSA, Australia</td>
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<td>M. Yamada</td>
<td>JAEA, Japan</td>
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IAEA Staff

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<tr>
<td>G. Bruno</td>
<td>WES-NSRW</td>
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<td>B. Carr</td>
<td>RRS-NSNI</td>
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<td>Y. Kumano</td>
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