JOINT MEETING OF RADIATION SAFETY STANDARDS COMMITTEE (RASSC),
AND WASTE SAFETY STANDARDS COMMITTEE (WASSC)

RW 1. Opening of the Joint RASSC/WASSC Meeting
Ms E Amaral, Director, Radiation, Transport and Waste Safety Division (NSRW) opened the meeting. She introduced both Chairmen and thanked them for chairing the meetings. The first main topics addressed in her opening speech were the events of the 53rd General Conference as they related to WASSC and RASSC, such as the inclusion of Transport in the Safety Resolution. Another main topic she mentioned was the results of the last Senior Regulators Meeting, which followed discussions on regulatory bodies of States that are actual or potential newcomers to nuclear power, and long term management strategies for disused radioactive sources. Ms Amaral also gave an overview of activities the Agency had participated in since the last meeting and upcoming events.
A copy of Ms Amaral’s opening remarks was uploaded to the WASSC and RASSC Members web page.

RW 2. Chairmen’s Remarks
Mr T Pather (WASSC Chair), and Mr S Magnusson, (RASSC Chair), welcomed all participants to the meeting. Mr Pather chaired the first session of the joint meeting.

RW 3. Adoption of the Agenda
The proposed agenda for the joint meeting was discussed and agreed, with some changes such as that Mr Mrabit would also be presenting SPESS with the Stakeholder document (Item 5.2) and Ms. Nilsson (Item 6) would be giving her presentation at a later time.

RW 4. Administrative Arrangements for the Meeting
Ms G Siraky, WASSC Coordinator, informed on the administrative arrangements for the meetings, highlighting material uploaded to the committee website, particularly those documents where the views of the members would be requested during the meeting, such as feedback on the list of safety guides. She further informed that distribution of paper copies of presentations would be restricted and that all presentations would be available on the committees’ websites.

RW 5. General Safety Standards Issues
RW 5.1 Feedback from the Commission on Safety Standards (CSS26):
Mr D Delattre, CSS Coordinator, provided an overview of the results of the last meeting of the Commission of Safety Standards (CSS 26). He informed the Committees that eight draft publications and four DPP’s had been approved by the CSS. The Draft safety standards included DS354, DS415, DS388, DS408, DS409, DS412, DS416 and DS422. The DPP’s approved were for DS405, DS429; DS430 the revision of NS-G-1.8; and DS 431 for the revision of DSS NS-G-
1.1 and NS-G-1.3. Mr Delattre also gave a progress report on DS424 and the agreement of the CSS for its pilot use.

Mr Delattre also reported on the CSS discussion on policy issues relating to SPESS and DS415, mostly relating to consistency and clarification. He also mentioned that the Reference list of Safety Guides was reviewed by the CSS. CSS26 requested to have it updated with any new DPP approved. Finally he drew the attention of the Committee to the need to review the Terms of Reference of the Safety Standard Committees for the next term.

**RW 5.2 Stakeholder involvement:**

Mr K Mrabit, Head of the Safety and Security Co-ordination Section, gave a presentation on the draft policy paper regarding stakeholder involvement in the development of Safety Standards. He gave an overview of which stakeholders should be involved in which processes and to what extent, such as during the drafting, review and approval processes. He also gave an overview of SPESS.

*Action:* RASSC and WASSC members invited to provide feedback on the Stakeholder involvement paper and on SPESS by 31 December 2009.


Ms A Nilsson, Director of the Nuclear Security Division, Nuclear Safety and Security Department gave a report on the top and second tier of the Nuclear Security Series documents. She referred to the recommendations documents of the series, the second tier which cover the physical security of nuclear and other radioactive materials and the detection of and response to nuclear security events involving these matters. She also presented the consultation and coordination process for the development of the documents in the security series.


Mr D Louvat, Head of the Waste and Environmental Safety Section gave a report on the Round Table held jointly with the Swedish Radiation Safety Authority at the 53rd IAEA General Conference on the Licensing of Geological Disposal Facilities. The main items discussed were: the most important stages of licensing; the degree of retrievability of wastes/spent fuel; the management of new knowledge generated during the operational period; and monitoring needs during the licensing period; when the requirements for closure are established and views on institutional control. Mr Louvat also outlined country highlights from the Round Table and informed on the International Workshop on Demonstrating the Safety and Licensing of Radioactive Waste Disposal (in conjunction with the Conference on Effective Nuclear Regulatory Systems to be held in Cape Town, South Africa, on 14 December 2009).

**RW 8. Senior Regulators Meeting – Discussion Long Term Management of Disused Sealed Sources**

Mr E Reber, from the Regulatory Infrastructure and Transport Safety Section gave a presentation on the Senior Regulators Meeting on the Long Term Management of Disused Sealed Sources. The main topics centered on the connection between the Code of Conduct, the Joint Convention and Nuclear Security related Conventions and the relative weakness in Member States’ management of disused sealed sources.

Mr Reber also outlined the issues arising from the June/July 2009 Code of Conduct Meeting and reported in conclusion that the IAEA should facilitate the exchange of information and experience on the implementation of the Joint Convention and the Code of Conduct.
RW 9. Review of Documents under Development

RW 9.1 DS413 Safety Requirements – Safety of Nuclear Power Plants: Operation

Mr M Kearney, from the Operational Safety Section, presented a review of the status of the Safety Requirements Document DS413 (revision of NS-R-2) on the Safety of Nuclear Power Plants: Operation. He reported that the document was drafted in 2007. It was approved by the committees and sent for Member States comment in 2008. 495 comments were received, and a further 125 comments were received after the document was posted on the committees website in August 2009. Two amendments have been added since the resolution of comments in Draft 10, amendment 1, based on NUSSC comments and Amendment 2 based on comments from Argentina. Mr Kearney also reported on comments made by India. Three comments were raised at the meeting on paragraphs 1.6, 4.27 and 5.17/5.18. As the document was being reviewed by all the committees it was agreed that any changes made would be agreed during the next scheduled meeting of the Four Chairs. Mr Kearney also noted that as a result of the decision at the last CSS, all requirement statements in the document would be re-worded as “shall” with the re-wording also being agreed by the Four Chairs. He noted that the document had been accepted by NUSSC (the leading committee) and will be submitted to the CSS and the Board of Governors in 2010 after being accepted by WASSC and RASSC.

Action: RASSC and WASSC approved DS413 for submission to the CSS, subject to comments being incorporated.

RW 9.2 DS426 Safety Guide - Periodic Safety Review of NPPs

Ms C Toth, from the Safety Assessment Section, gave a presentation on the status of the Safety Guide DS426 – Periodic Safety Review of NPPs. She presented the background to the document and reported that the document was considered sound by the reviewers; however it did require some further recommendations, as listed below:

- follow-up PSRs (i.e. 2nd, 3rd, etc.),
- consideration of PSR as an input in assessing long term operation (LTO) aspects, like the impact of ageing (decision of NUSSC in 2007),
- new safety factor: Management system and Safety culture,
- additional topic to safety factor (10): Organization, Management system and Safety culture
- interfaces between the safety factors
- more detailed global assessment.

Ms Toth gave the history of the document, which included that the DPP was approved in 2008 and the draft Safety Guide was expected to be approved by all WASSC, RASSC and NUSSC to be sent for Member States comment in 2009. She reported that 217 comments were received from NUSSC members, of which 48 of these comments were rejected. Ms Toth then gave an overview of the types of comments that were received which were mostly relating to editing or to adding clarity. She reported that there had been no unresolved issues. Ms Toth reported that the document had been approved by NUSSC to be sent for Member States for comment and that approval was now being sought from WASSC and RASSC.

Action: RASSC and WASSC approved DS426 for submission to Member States for comment.

RW 10. Review of DPPs

RW 10.1 DS433 DPP of Safety Guide - Site Survey and Site Selection for Nuclear
Installations

The DPP was introduced by Mr A Godoy who indicated that this DPP corresponded to the revision of current Safety Guide SG-S9 and it would now cover NPPs and non-NPP nuclear installations. Site evaluation and site selection have taken on added importance in light of the large number of Member States considering the introduction of nuclear power for the first time. The proposed approach is to provide guidance on site survey studies, firstly identify potential regions, to move on to potential sites within those regions and then to identify candidate sites through screening and comparison. The acceptability of the selected site is then demonstrated on the basis of pre-established criteria.

Mr Godoy discussed the objectives of the document and presented the table of contents. He then presented the development and review process of the document, noting that the DPP is projected to be accepted by CSS in the 1st quarter of 2010 and development and review of the document to take place over 2010-2011, with publication estimated for the first quarter of 2012. Mr Godoy reported that 21 comments had been received from the NUSSC/WASSC/RASSC committees on the DPP and gave some examples of the general comments received. Mr Godoy noted that approval of the DPP was being sought by RASSC and WASSC.

One committee member noted that the manner in which security matters are to be dealt with should be clear from the outset. It was also recommended that consideration be given to restructuring chapters 3 and 4 so as to avoid duplication when similar considerations apply to both NPPs and other nuclear facilities. Another committee member noted that use of the term “rejection of unacceptable sites” should be reconsidered and an alternative wording used.

Subject to these amendments, the DPP was approved.

**Action:** RASSC and WASSC approved the DPP for DS433 for submission to the CSS, subject to the comments being incorporated

**RW 10.2 DS434 DPP of Safety Guide - Radiation Safety of Radioisotope Production Facilities**

The DPP was introduced by M. E Reber who indicated that the Safety Guide was targeted at operators and designers but not directly at regulatory bodies. Production of radioisotopes often involves the handling of large quantities of radioactive material that can present significant hazards to workers, members of the public, and the environment and no IAEA safety standard currently provides comprehensive guidance on the application of safety requirements to the production of radioisotopes.

SSC’s welcomed the document and recommended that the Guide address facility design with decommissioning in mind. One committee member noted that safety and security are integrated and cannot be dealt with separately; for that reason, greater attention needs to be given to security issues than appears to be the case from the draft DPP. It was also noted that safety evaluations by both designers and operators should be addressed in the Guide. Following a question from a committee member, it was noted that the use of radionuclide generators at radiopharmacies was excluded from the scope of the document.

Two committee members raised the issue of independent evaluation of safety assessments by the regulator. It was confirmed that this is already covered in GS-R-4 and therefore does not need to be covered again in DS434.

Subject to these amendments, the DPP was approved.

**Action:** RASSC and WASSC approved the DPP for DS434 for submission to the CSS, subject to the comments being incorporated.

**RW 10.3 DS437 DPP Regulations for the Safe Transport of Radioactive Material**
20XX Edition

The DPP was introduced by Mr J Stewart who noted that, in line with other UN bodies, TRANSSC reviews its transport regulations TS-R-1 every two years and criteria are developed in advance with which to judge whether or not revision is justified. The 2009 review of TS-R-1 resulted in approximately 500 comments of which approximately half referred to fissile material. TRANSSC considered that a revision of the text was justified. Mr Stewart was seeking a decision in principle to proceed with revising the text and further comments could be submitted up to the end of November 2009.

There were no questions or comments and the DPP was approved.

**Action:** RASSC and WASSC approved the DPP for DS437 for submission to the CSS for endorsement.

RW 11. Other Business

The only item of business was related to the request from the IAEA’s Office of Legal Affairs to advise INLEX for a technical evaluation of the proposal from Germany seeking certain exemptions from the 1997 Vienna Convention. This had been the subject of a meeting on the morning of 16 November between the Secretariat and representatives from Germany to which all members of RASSC and WASSC had been invited.

The Secretariat indicated its desire to make a formal response to Germany as soon as possible and therefore was proposing to seek certain clarifications from Germany before setting up a working group, consisting of representatives of the four Safety Standards Committees, to consider the matter further. The NEA indicated its availability to partake in such a working group as the same issue had also been referred to its Committee on Radiation Protection and Public Health. The Secretariat considered that there were two different international conventions involved and that there was value in having two different advice routes to the Secretariats of the Conventions.

It was agreed that the Secretariat would proceed with seeking clarification on certain technical issues from Germany and the matter would be discussed again at a working group Meeting on 13 January. SSC’s members wishing to be involved or to send a representative should provide nominations to the working group by 30 November 2009.

RW 12. Dates of Future Meetings

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<tr>
<td>28th CSS meeting</td>
<td>17 - 19 March 2010</td>
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<td>28th RASSC meeting</td>
<td>21 - 25 June 2010</td>
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<td>29th WASSC meeting</td>
<td>28 June - 2 July 2010</td>
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<td>29th CSS meeting</td>
<td>29 September - 1 October 2010</td>
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<td>Joint 29th RASSC – 30th WASSC meeting</td>
<td>6 - 10 December 2010</td>
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RW 13. Closing Remarks of RASSC/WASSC Joint Session

Mr Magnusson and Mr Pather thanked committee members for their participation in the meeting, allowing fruitful contribution to the discussion on draft documents and closed formally the sessions of the joint meeting.
RADIATION SAFETY STANDARDS COMMITTEE (RASSC) MEETING

R1, R2 Opening of Meeting, Adoption of Agenda and Administrative Arrangements
Mr S. Magnusson opened the meeting and welcomed RASSC members. The draft agenda was discussed and agreed.

R3. Chairman’s Report from the 26th Meeting and Actions Arising
Mr T Colgan reported that all actions arising from the 26th RASSC meeting had been carried out apart from the setting up of a joint RASSC/WASSC/TRANSSC/NUSSC working group to review the technical issues related to the proposal from Germany for exemptions from the 1997 Vienna Convention. The status of ongoing work in this area was previously discussed in the joint RASSC/WASSC session under item 11.

R4. IAEA’s Programme on Radiation Safety
Ms R Czarwinski presented an overview of the current activities of the IAEA in the area of radiation protection and transport safety (Programme K: development of safety standards; strengthening regulatory infrastructure; radiological protection of patients; safety of transport of radioactive materials). She noted the important role played by the Agency in the development of safety standards and referred to the upcoming technical meeting on radon that will be hosted by the IAEA on 15-16 December 2009. She highlighted the work being done to strengthen regulatory infrastructure and to improve the safety of radiation sources, including ongoing discussions to identify synergies between the Code of Conduct and the Joint Convention. There is a continued emphasis on education and training. Ms Czarwinski highlighted the work being undertaken on occupational exposure of workers and exposure of patients, mentioning a number of important reports that have recently been published or are in preparation. In the transportation area, denial of shipments is still an issue for many Member States, as well as for the Agency itself in its own activities, and work continues to resolve these in a co-operative manner. A copy of Ms Czarwinski’s presentation was provided to RASSC members and is available on the RASSC website.

Some discussion took place on the role of the Agency in ensuring the availability of medical isotopes. Ms Czarwinski noted that, at the request of Canada, a joint working group has been set up with the NEA to better understand the factors that influence demand and supply with a view to ensuring better coordination between suppliers in the management of their facilities.

R5. Current Status of Documents
Mr T Colgan informed RASSC members of all documents that are likely to come before RASSC during 2010.

R6. Detailed Discussion on Standards for Approval
Mr G Bruno described the scope and objective of the Safety Guide, summarized its development, and outlined its contents. He said that around 40 comments had been received from Member States and described the changes that had been made to the text to take account. The majority of the comments had been accepted, including those on stakeholder engagement submitted by Japan. The document has still to be discussed by WASSC. RASSC approved DS334 for submission to the CSS for endorsement.
**Action:** RASSC approved DS334 for submission to the CSS for endorsement, subject to approval by WASSC.


Mr G. Bruno described the scope and objective of the Safety Guide, provided an overview of its contents, and summarized the history of its development. He said that 120 comments had been received of which approximately 70% were accepted and 30% rejected. He outlined the main issues raised and how these had been addressed. In discussion, the USA noted that it considered that substantial editorial work was required for consistency with other Safety Guides; this issue would be raised by the US representative in WASSC. RASSC approved DS356 for submission to Member States for comment subject to all remaining issues being resolved by WASSC.

**Action:** RASSC approved DS356 for submission to Member States for endorsement, subject to approval by WASSC.

### R7. Topical Session: Report on the International Workshop on Justification of Medical Exposures in Diagnostic Imaging

Mr O Holmberg, Head of the Radiation Protection of Patients Unit, summarised the outcome of the Workshop which took place in Brussels from 2-4 September 2009, co-sponsored by the Agency and the European Commission. He noted that the improved access to medical facilities worldwide and the higher doses often associated with some of the newer procedures has resulted in a large increase in the *per caput* and collective doses from medical exposures. Between 20% and 50% of individual exposures may not be justified and this is the result of a combination of factors linked to both technical and economic issues. There is a need to work closely with the professional bodies in Member States to resolve these problems by raising the issues of Awareness of the risks, Appropriateness of the exposure and regular clinical Audit (the three As).

In discussion, the importance of having a programme of education and training was emphasised; the BSS may need to be strengthened in this regard and there is a need for further development of clinical audit and referral guidelines. Both the WHO and PAHO supported work on justification of medical exposures as a priority issue with the need to focus on the driving forces giving rise to over-use on a region by region basis. The WNA noted the relatively high doses that can be delivered as part of medical imaging compared with the much lower public doses from the nuclear industry, which it considers as being as much in the public interest as medical exposures.

### R8. Reports from International Organizations

Oral reports were given by Mr S Niu (ILO); Mr D Byron (FAO); Ms M Perez (WHO); Mr P Jiminez (PAHO); Mr S Mundigl (EC); Mr E Lazo (NEA); Mr A Rannou (ISO); Mr K Kase (IRPA); Mr S Saint-Pierre (WNA) and Mr P Bosquet (ENISS) to update RASSC members on the most recent activities. Written submissions had been made available in advance of the meeting and can be downloaded from the RASSC website.

**R8.14 ICRP Report on Radon**

Mr C Clement gave an oral presentation on the ongoing work of the ICRP and discussed the Statement on radon issued following the recent ICRP meeting in Porto. Based on the most recent scientific evidence, the ICRP is now recommending a nominal risk co-efficient of $8 \times 10^{-10}$ per Bq.h.m$^{-3}$ EEC, corresponding to $5 \times 10^{-4}$ per Working Level Month (WLM). This is approximately twice the previous nominal risk co-efficient of $2.4 \times 10^{-4}$ per WLM. The ICRP intends to develop dose conversion co-efficients for radon and its progeny using the same methodology as for all other radionuclides. At this stage it appears that the dose per unit exposure
is likely to increase by about a factor of two.

The ICRP continues to base its advice on the setting of reference levels consistent with an individual dose of approximately 10 mSv. Based on the most recent scientific evidence, it is now recommending a reference level of 300 Bq.m\(^{-3}\) in homes and 1000 Bq.m\(^{-3}\) in workplaces. In situations where it is not possible to reduce the radon concentration in a workplace below 1000 Bq.m\(^{-3}\), this will be regarded as a planned exposure situation rather than an existing exposure situation.

In discussion, there were some issues raised about the difference between a reference level of 1000 Bq.m\(^{-3}\) for workplaces and the ‘entry point’ for treating exposures as planned exposure situations. Spain and Japan noted that it was not appropriate to apply the full system of radiation protection in workplaces such as offices if the radon concentration could not be reduced below 1000 Bq.m\(^{-3}\). The EC asked if spas and water treatment plants should be regarded as existing exposure situations for those who work there. Brazil and others felt that regional variability in lifestyles needed to be taken into account in setting reference levels for homes. The WNA noted the disparity between doses received by the public and by workers and suggested the need to move towards a more balanced system of radiation protection for the population as a whole. Finland highlighted the potential problems in ‘mixed’ workplaces where it might not be possible to distinguish between existing and planned exposure situations.

It was agreed that all of the issues raised could be further debated at the technical meeting on radon in December.

**R9. Revision of the BSS (DS379: International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources)**

**R9.1 Introduction and Most Recent Changes**

Ms R Czarwinski introduced the document, draft 2.5 of which had been posted on the RASSC website for comment on 2\(^{nd}\) October 2009. A total of 1003 comments were received: 561 of these were received from 20 Member States or organizations within the deadline with a further 442 comments from 13 Member States or organizations received after the deadline. Those received within the deadline had already been responded to and the summary table posted on the RASSC website on 12\(^{th}\) November 2009. Ms Czarwinski outlined the process to date and indicated that the Agency felt that the draft document could be sent to Member States for comment in early 2010 with a view to having the BSS approved by the four Safety Standards Committees at the end of 2010.

Ms Czarwinski noted that at the most recent meeting of the Commission on Safety Standards it was agreed that all requirements will be written as ‘shall’ statements. The most recent draft includes 53 overarching requirements prepared in conjunction with the co-sponsors and potential co-sponsors. In addition, all technical issues decided at RASSC 26 have been incorporated. The remaining technical issues which need to be considered at RASSC 27 relate to radon, protection of the environment, exemption and clearance, the interface between safety and security and the glossary.

The US complemented the Secretariat on the work in preparing draft 2.5 and indicated their support for submitting the draft to Member States for comment in early 2010. This was supported by Denmark (in writing prior to the meeting) and Argentina. The US underlined the need to agree an open and transparent process prior to submission to Member States and for resolution of the comments received. This process should take full account of the needs of the co-sponsoring organizations and the Agency needed to assign adequate time and resources to ensure a high quality document.
R9.2 Report from TRANSSC

Mr J Stewart, Scientific Secretary of TRANSSC, reported on behalf of the Committee. Mr Stewart indicated that the main concern of TRANSSC related to Table I-1 dealing with exemption. TRANSSC considers that the lead should be taken by RASSC on this issue and that, in the interest of harmonization, the transport community will be prepared to adopt the same values even though their application is somewhat different. He noted that SPRESS allows for an addendum to be used as part of safety requirement documents and that, if this process were followed, Table I-1 could be regularly updated as the need arose independently of any future revision of the BSS.

Both the USA and Brazil asked about the need for exemption values based on contamination and which are not radionuclide specific. Mr Stewart noted that such a value could be used by the transport community if it were included in the BSS.

R9.3 Report from NUSSC

Mr G Feige, Scientific Secretary of NUSSC, reported on behalf of the Committee. Mr Feige noted that NUSSC had discussed draft 2.5 at its most recent meeting but did not have sufficient time to consider it in detail – this was because the NUSSC meeting was scheduled two weeks after the deadline for posting draft 2.5 on the website. While some issues that still need to be resolved have been identified, NUSSC is happy to allow RASSC make the final decision on whether or not the BSS should be sent to Member States for comment.

R9.4 Report from WASSC

Mr T Pather, Chairman of WASSC, reported on behalf of the Committee. Mr Pather noted that draft 2.5 is a major improvement over the previous drafts 1.0 and 2.0. However, the development of overarching requirements has been forced on a document that was already well advanced and it is not always clear why some requirements are overarching and others are associated. Mr Pather identified the following issues that WASSC felt need further consideration

- International obligations in 2.30 need to be consistent with DS415 (GS-R-1);
- Table I-1 is used in different ways in the BSS and in TS-R-1. Harmonization of values is therefore not absolutely necessary;
- The level of detail in 3.29 – 3.37 is more appropriate to a Safety Guide;
- The radon issue needs to be resolved after the technical meeting in December;
- While it was discussed previously, there is still some concern at the use of the term ‘optimized’ instead of ‘subject to a process of optimization’;
- Requirement 3.17 dealing with justification is satisfactory but is inconsistent with the explanatory text in 1.13, which should be rewritten.

During discussion it emerged that there was strong support for harmonized use of the exemption values in Table I-1 in both the BSS and TS-R-1, but it should be clear in both documents how the values were to be applied. There was also some remaining concern about the use of ‘shall’ statements, the need for absolute clarity and the importance of adopting an approach consistent with all other requirements documents of the Agency.

A number of members sought clarification of how changes would be made to those requirements dealing with radon and the role of the Safety Standards Committees in the process. Both the UK and the US asked that the Committees be informed of the outcome of the technical meeting on radon and be allowed make comment. Noting the concern about the consultation process, the Chairman proposed the setting up of a joint RASSC/WASSC working group to consider the issues raised by the earlier presentation of Mr C Clement of the ICRP. It was agreed that the
working group would report to both RASSC and WASSC the following morning. The membership and terms of reference of the working group, as well as a summary of its conclusions, appear in Annex 1.

**R9.5 Structured Discussion on Draft 2.5**

The draft text was discussed in detail, starting with chapter 1 and continuing through the document taking each overarching requirement and its associated requirements in turn. The relevant technical officer was present to assist the discussion. The decisions made and the issues assigned to the Secretariat to resolve are summarized in Annex 2.

In discussing the report from the joint RASSC/WASSC working group on radon, it was noted that the key paragraphs that may need amendment are 3.4, 5.19-5.21 and 5.27-5.29, including the associated footnotes. There was considerable discussion about the 1000 Bq.m$^{-3}$ ‘entry point’ for planned exposure situations and how consistency could be achieved if a different value was adopted as a national reference level for workplaces. France noted that when radon concentrations in workplaces cannot be reduced below 1000 Bq.m$^{-3}$, 5.29 refers specifically to applying the ‘relevant requirements’ for occupational exposure in planned exposure situations; this is often interpreted as ‘full requirements’ and it would be desirable to change the language, possibly to only require compliance with dose limits for occupational exposure. The ILO welcomed any moves to harmonize the approach to controlling exposure to radon but cautioned against a requirement for compliance with dose limits without full consideration of the implications.

The UK and Czech Republic welcomed the proposals from the working group, recognising that these issues would be discussed in greater depth during the technical meeting on radon in December. The WNA stressed the need to consider the ICRP Statement carefully and to fully understand the implications of any change before making a final decision on how to proceed. The meeting also noted the comment made in WASSC that, when national conditions are taken into account, a reference level higher than that recommended by the ICRP might be appropriate.

Israel raised its concern about the use of overarching requirements and expressed the view that the retrospective drafting of overarching requirements to a document that was already well developed was not helpful. France and the UK supported this viewpoint, noting that the overarching requirements need to be reviewed to ensure that all areas are adequately covered; some are quite general while others are very precise and it is possible that some of the important nuances may have been lost. At the request of the UAE, the Secretariat undertook to circulate a full set of the revised overarching requirements, incorporating all changes that had been agreed at the meeting and also those which had been left to the Secretariat to finalize. The Secretariat invited members of RASSC to put forward firm proposals for any improvement.

**Action: Secretariat to circulate a full set of the revised overarching requirements**

In discussing the process of seeking comment from Member States, the Secretariat underlined the need to consult widely at national level but to have one focal point for the filtering and collation of comments. The USA pointed out the difficulties in establishing contacts with other national bodies and collating comments within the 120 day consultation period. It was noted that different sectors of Government interact with the co-sponsors and it will be difficult to limit national comment to one central organization. The NEA suggested that there may be a role for the BSS Secretariat in resolving conflicting comments.

It was agreed that a full resolution of comments on draft 2.5 would be posted on the RASSC website after the technical meeting on radon and that the draft issued to Member States would also be made available. A timetable is to be agreed with the BSS Secretariat and made available to all RASSC members.

**Action: Resolution of all comments on draft 2.5 to be posted on RASSC website during December**
Action: Draft 3.0 of the BSS to be posted on the RASSC website after issue to Member States

Action: Secretariat to agree timetable for entire process with the BSS Secretariat and post on the RASSC website

R10 Chairman’s Summary

Mr S Magnusson concluded that the decision of RASSC was that, subject to all the issues raised being addressed, DS379 could be submitted to Member States for comment before the end of January 2010. Mr Magnusson noted that the four chairmen of the Safety Standards Committees would review the draft document during their meeting on 15th January 2010. Mr Magnusson thanked the Secretariat for the preparation for the meeting and all members for their constructive contribution to the discussion.
Annex 1
Joint RASSC/WASSC Working Group on Radon

**Members:** Mr S Chandler (WASSC – United Kingdom); Mr C Clement (ICRP); Mr D Howard (WASSC – Canada); Mr P Johnston (WASSC – Australia); Mr J-F Lecomte (RASSC – France); Mr M Markkanen (RASSC – Finland); Ms M Perez (WHO); Ms E Rochedo (RASSC – Brazil); Mr H Yonehara (RASSC – Japan); Mr T Colgan (IAEA Secretariat).

**Task:** To review the requirements in draft 2.5 of the BSS relating to radon and, taking into account the recent statement from the ICRP, identify any changes that might be necessary.

**Outcome:** Mr M Markkanen was elected as Chairman.

The Working Group noted that radon is mentioned in requirements 1.39, 3.4(c), 3.4(d), 5.1(c)(i), 5.19, 5.20, 5.21, 5.27, 5.28, 5.29 (including related footnotes 48 - 50 and 52 - 53), and Schedule III-8 and its associated Table III-1.

Following extensive discussion, there was a majority consensus on the following points

For radon exposure in workplaces that are regarded as existing exposure situations, the current BSS requires the regulatory body or other relevant authority to set a reference level which does not exceed a maximum annual average concentration of 1500 Bq/m$^3$. Where radon concentrations remain above 1000 Bq/m$^3$, exposure to radon, along with any other worker exposures, are to be subject to the relevant requirements for occupational exposure in planned exposure situations. The use of two different values causes confusion and is unnecessary.

For radon exposures in workplaces that fall into the category of existing exposure situations, it was considered appropriate, in line with the recent ICRP statement, that the regulatory body or other relevant authority shall set a reference level which does not exceed a maximum annual average concentration of 1000 Bq/m$^3$. Where it is not possible to reduce radon concentrations below the established reference level, the regulatory body should have flexibility to decide how to deal with these exposures i.e. the concept of an “entry point” to planned exposure situations should be deleted.

Exposure to radon in planned exposure situations such as uranium mines needs to be assessed regardless of whether or not it is above or below the reference level. Such exposure needs to be included in the calculation of an individual’s dose for compliance with dose limits.

In other planned exposure situations, such as workplaces where sealed sources are used, exposure to radon is considered as an existing exposure situation and is subject to the requirements related to the reference level; such exposure is not assessed for compliance with dose limits.

For radon exposures in dwellings, it was considered appropriate, in line with the recent ICRP statement, that the regulatory body or other relevant authority shall set a reference level which does not exceed a maximum annual average concentration of 300 Bq/m$^3$.

The reference level for dwellings should also be applied to other buildings with a high occupancy rate by the public i.e. schools, prisons, nursing homes etc.

Footnotes should be added to clarify the relationship between the chosen reference levels and dose, indicating the assumptions made in the calculation (i.e. equilibrium factor, occupancy rate etc.)

As dose conversion co-efficients for radon and radon progeny are unlikely to be published by the ICRP prior to approval of the BSS, a decision will be required on retention, deletion or modification of the values currently listed in Schedule III, Table III-1.

12
# Annex 2

**DS379 – Discussion and Decisions**

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Discussion/Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Comments</strong></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>No ‘shall’ statements to appear under ‘scope’ at the start of each chapter</td>
</tr>
<tr>
<td>All</td>
<td>Where the expression ‘in accordance with the requirements of these Standards’, or similar language, appears in overarching requirements, this will be deleted and, if necessary, the requirement rephrased</td>
</tr>
<tr>
<td>All</td>
<td>The numbering system used for overarching requirements and associated requirements is confusing and should be reviewed (Brazil)</td>
</tr>
<tr>
<td><strong>Secretariat to resolve</strong></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>Sub-headings to be used within the document when they are considered to be of assistance to the reader</td>
</tr>
<tr>
<td><strong>Secretariat to resolve</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chapter 1</strong></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>To be deleted</td>
</tr>
<tr>
<td>1.6</td>
<td>Reference to ICRP to be reinstated</td>
</tr>
<tr>
<td><strong>NEW</strong></td>
<td>Paragraph to be included referring to the IAEA Security Series</td>
</tr>
<tr>
<td>1.9 - 1.18</td>
<td>References to the safety principles to be deleted. Some additional minor text changes may also be required</td>
</tr>
<tr>
<td>1.13</td>
<td>Text of 1.13 is considered stronger than the requirement in 3.17, which is acceptable. Text of 1.13 to be revised (RASSC)</td>
</tr>
<tr>
<td><strong>Secretariat to resolve</strong></td>
<td></td>
</tr>
<tr>
<td>1.25</td>
<td>New draft text on radiation protection of the environment proposed by Secretariat (see presentation by R. Czarwinski) is accepted</td>
</tr>
<tr>
<td><strong>Chapter 2</strong></td>
<td></td>
</tr>
<tr>
<td>R 2-1</td>
<td>Second half of the requirement ‘to protect people…………exposure situations’ to be deleted</td>
</tr>
<tr>
<td>R 2-2</td>
<td>Amend text to read ‘……effectively independent regulatory body with defined responsibilities and functions’</td>
</tr>
<tr>
<td>2.13</td>
<td>New text proposed by Secretariat was supported by USA and WNA. Agreed to change ‘any exposure situations’ to ‘all exposure situations’</td>
</tr>
<tr>
<td>2.14(f) – 2.17</td>
<td>Text to be deleted. New para. to be added after 2.26 as proposed by Secretariat (note: Canada would prefer existing text to be retained but was content to allow the proposed new text to be sent to Member States)</td>
</tr>
<tr>
<td>2.29</td>
<td>Term ‘accounting and control’ is inappropriate (Japan). Agreed to retain current text with explanation provided in a Safety Guide.</td>
</tr>
<tr>
<td>Paragraph</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------</td>
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</tr>
<tr>
<td>2.30</td>
<td>Japan asked for more discretion to be built into the current text. The UAE pointed out that (a) is not necessary and should be deleted while (b) and (c) are desirable but inappropriate as requirements. This was supported by the USA. Secretariat pointed out that text is identical to that in GS-R-1 which has already been approved by the CSS.</td>
</tr>
<tr>
<td>R 2-3</td>
<td>In some countries, ‘regulations’ mean secondary legislation which would be adopted by Government, not the regulatory body (Ireland). ‘Enforcement’ is only one part of regulatory activity and the text needs change to reflect all responsibilities of the regulatory body (Finland).</td>
</tr>
<tr>
<td>2.32</td>
<td>Noted that exemption and clearance are part of the authorisation process and therefore do not need to be specified in the list of requirements</td>
</tr>
<tr>
<td>2.37</td>
<td>Spain noted that the responsibilities in this paragraph should be assigned to government and not to the regulatory body. It was noted that the current requirement is consistent with 4.63 in GS-R-1, but that it might be best to use the identical wording in both documents.</td>
</tr>
<tr>
<td>2.39</td>
<td>The requirement is not of high level importance and should therefore be deleted and moved to a Safety Guide (Israel). Not accepted as there is a strong demand from the medical community for retention of this requirement.</td>
</tr>
<tr>
<td>R 2-4</td>
<td>Agreed that the phrase ‘or for carrying out……..to reduce radiation exposure’ should be deleted from the overarching requirement and relocated to the associated requirement 2.41. WNA request to replace ‘reduce radiation exposure’ with ‘optimize radiation exposure’ was not accepted. WHO pointed out that we optimize protection but we do not optimize exposure.</td>
</tr>
<tr>
<td>Chapter 3 – generic requirements</td>
<td></td>
</tr>
<tr>
<td>R 3-1</td>
<td>Israel noted that the graded approach applies in all situations and asked that this requirement be moved to chapter 2</td>
</tr>
<tr>
<td>3.4(a)</td>
<td>Japan asked for a change in the text because of difficulties in application of the activities mentioned. Many other written comments were received on this requirement.</td>
</tr>
<tr>
<td>R 3-2</td>
<td>UK pointed out that situations where no notification is required are not covered. Spain asked for change in title to read ‘notification, registration and licensing’. Belgium asked for ‘a’ to be deleted before ‘notification’.</td>
</tr>
<tr>
<td>R 3-3</td>
<td>To read ‘The Governmant or regulatory body….’</td>
</tr>
<tr>
<td>R 3-4</td>
<td>Use of the expression ‘…when granting the authorisation...’ could be</td>
</tr>
</tbody>
</table>
misinterpreted to imply that an authorization must be issued. **Secretariat to resolve**

<table>
<thead>
<tr>
<th>3.13</th>
<th>The text is more guidance than a requirement. USA noted that there is considerable overlap with R 3-2 and suggested that this text could become an associated requirement under a revised R 3-2. R 3-4 would then be unnecessary. <strong>Secretariat to resolve</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.14 – 3.16</td>
<td>Could possibly be moved to a Safety Guide. ILO noted that the text of these paras. comes directly from the current BSS and therefore care is required in making a decision to remove. <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>R 3-6</td>
<td>Title to be changed to ‘Justification of practices’. EC and Czech Republic recommended that text of requirement be changed to ‘….only justified practices are authorized’. Agreed that views of IAEA technical editors was required <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>3.19 – 3.21</td>
<td>The UAE felt that the text needed greater clarity, noting that this was an activity where considerable change might be expected during the lifetime of the BSS. Spain asked for a more flexible wording in 3.19. Secretariat noted that the text had been developed jointly with the ILO and it was felt that the right balance had been achieved. <strong>BSS Secretariat to resolve</strong></td>
</tr>
<tr>
<td>R 3-7</td>
<td>May need revision based on resolution to paras. 3.22-3.25 <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>3.22 – 3.25</td>
<td>UK supported the written comments of ENISS and NUSSC that associated requirements 3.23 to 3.25 are relevant to registrants and licensees while the overarching requirement and 3.22 refer to the regulatory body. Israel proposed that R 3-7 and 3.23 should be merged. Spain noted that the responsibility in 3.22 is not only to ‘establish requirements for optimization’ but also to verify that these are being implemented. Czech republic pointed out that 3.22 should read ‘The Government or regulatory body…..’. USA recommended that 3.22 should be relocated elsewhere in the text and R 3-7 rewritten to refer to the responsibilities of registrants and licensees. WNA pointed out that the requirements in 3.22 and 3.24(b) were inconsistent. France noted that the term ‘constraints for dose’ was not clear and possibly should be rephrased to make it clear that both dose constraints and risk constraints are covered. <strong>Secretariat to resolve and post resolution on the website</strong></td>
</tr>
<tr>
<td>3.26</td>
<td>For consistency with R 3-8, the text needs to be amended to read ‘….shall establish and the regulatory body shall enforce…..’</td>
</tr>
<tr>
<td>R 3-9 and 3.29 – 3.31</td>
<td>The text uses the terms ‘person or organisation’, ‘applicant’, ‘legal person’ and ‘registrants and licensees’ for what appears to be the same entity. Need for so many different terms needs to be checked with the technical editors</td>
</tr>
<tr>
<td></td>
<td>Secretariat to resolve</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------</td>
</tr>
<tr>
<td>3.29</td>
<td>Delete ‘in accordance with clearly specified procedures’.</td>
</tr>
<tr>
<td>R 3-13</td>
<td>Delete ‘….and devices……’</td>
</tr>
<tr>
<td>New</td>
<td>Agreed to add a new overarching requirement on non-medical imaging in line with written comments received. France proposed that 3.62 should become the new overarching requirement. Pakistan asked that the new requirement should refer to both the government and the regulatory body in order to allow for different national practices.</td>
</tr>
<tr>
<td>3.63</td>
<td>UK felt that the text was too detailed and should be moved to a Safety Guide. If the text is retained, then (b) should be deleted as it is not consistent with ICRP 103. Czech Republic wanted (b) retained.</td>
</tr>
</tbody>
</table>

### Chapter 3 – occupational exposure

| R 3-14 and 3.71 – 3.74 | Text to be changed to read ‘enforce requirements specific to occupational exposure….’.
UK noted some overlap with R 3-15 and R 3-16. Israel also noted some overlap with R 3-7 and R 3-8. Secretariat referred to previous discussions when it was agreed that some overlap was necessary so that we could refer to the schedule of dose limits
Text of 3.71 to 3.74 duplicates that in the section on existing exposure situation and not all is relevant to occupational exposure – some amendments are required |
| R 3-16 | Written proposal from Germany accepted. Australia noted that use of the expression ‘be responsible for’ is a weak requirement. |
| R 3-14 to R 3-18 | Israel and ILO suggested merging R 3-16 and R 3-17. Germany and Japan suggested merging R 3-17 and R 3-18. It was agreed that the associated requirements under R 3-17 should be relocated to R 3-16 and R 3-17 deleted.
USA asked that R 3-18 be rephrased to require employers to ensure compliance by workers. Hungary noted that workers are required to comply with national health and safety legislation but not with IAEA requirements
Ireland noted that several concepts are mingled between these five overarching requirements and these need to be separated out to improve clarity. Restructuring of overarching and associated requirements is required to separate out those that apply to the regulatory body and those that apply to registrants and licensees. |
<p>| R 3-19 | Written proposals for change accepted. As a consequence, the previous 3.66 is to be retained as an associated requirement. |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.86 (a)</td>
<td>Argentina felt that the expression ‘at least as good as’ could be misunderstood (when translated into Spanish?) and should be reviewed</td>
</tr>
<tr>
<td>3.86 (c)</td>
<td>Spain wants this reflected in R 3-19. Not accepted as felt to be too specific. Spain can address in national comments if it wishes.</td>
</tr>
<tr>
<td>3.89</td>
<td>Japan asked that the text be amended to clarify that the concept of a controlled area does not apply during transportation. ILO felt that this was not always the case e.g. during transport by train. <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>R 3-22</td>
<td>replace ‘adequate…… training’ with ‘required…… training’</td>
</tr>
<tr>
<td>R 3-24</td>
<td>Written proposals accepted, except for changing ‘protection of the foetus’ to ‘protection and safety of the foetus’.</td>
</tr>
<tr>
<td>3.114</td>
<td>Israel felt that the reference to those ‘who may undertake emergency duties’ was inappropriate in this section and should be moved to 4.17, with a cross-reference to 3.114 <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td><strong>Chapter 3 – public exposure</strong></td>
<td></td>
</tr>
<tr>
<td>R 3-25</td>
<td>Written proposal from PAHO accepted except that expression ‘when appropriate’ to be changed to ‘as appropriate’.</td>
</tr>
<tr>
<td>R 3-26</td>
<td>Written proposal from NEA accepted. Argentina noted that the philosophy of the requirement is now changed but it was agreed that it is more important to apply the system of protection and safety rather than demonstrate compliance.</td>
</tr>
<tr>
<td>R 3-27</td>
<td>Agreed to new wording based on written submissions received</td>
</tr>
<tr>
<td>3.132</td>
<td>ENISS were unhappy with the current wording as it does not reflect the necessity of an integrated approach to optimization and waste management. WHO pointed out that we only optimize protection. Secretariat undertook to rephrase existing text to take account of the concerns of ENISS. USA supported this approach and asked that future guidance be prepared on this issue. <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>3.134</td>
<td>Japan and Israel proposed that the additional new text (‘exposure due to……, as appropriate) be deleted as it was not clear why it had been added <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>3.139</td>
<td>In response to PAHO, Secretariat clarified that ‘regulatory body’ is a generic term used to refer to one or several regulatory bodies, as appropriate</td>
</tr>
<tr>
<td>3.142</td>
<td>PAHO felt that the use of the term ‘source of ionizing radiation’ was too broad and the text needed to be more specific. <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td><strong>Chapter 3 – medical exposure</strong></td>
<td></td>
</tr>
<tr>
<td>R 3-32</td>
<td>Agreed that text should remain unchanged</td>
</tr>
<tr>
<td>Section</td>
<td>Text</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>3.154</td>
<td>NEA felt that additional areas of medical specialisation needed to be referred to. Secretariat felt that this was well covered, in a general way, in 3.150 and there was no need to be explicit in every instance.</td>
</tr>
<tr>
<td>R 3-34</td>
<td>PAHO emphasised the importance of adding ‘radiological medical practitioners’ at the start of the requirement. Supported by WHO. USA felt that the term ‘optimized’ was open to misinterpretation. WHO pointed out that it was important to ensure that doses were neither higher nor lower than necessary and this needed to be reflected in the overarching requirement. <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>3.162</td>
<td>All editorial changes and points of clarification received in writing have been accepted</td>
</tr>
<tr>
<td>3.170</td>
<td>Japan asked that the previously deleted text ‘in conjunction with other health professionals, as appropriate, be restored, citing the use of nurses in certain instances. It was also noted that other professionals could become involved during the lifetime of the BSS and that therefore some flexibility was required. Supported by PAHO and agreed.</td>
</tr>
<tr>
<td>R 3-35</td>
<td>Israel asked that the requirement be changed to include the expression ‘is or might be pregnant’ in place of ‘may be pregnant’</td>
</tr>
<tr>
<td>R 3-37</td>
<td>Some concern was expressed at the proposal to change the term ‘reasonable measures’ to ‘practicable measures’. USA noted that any change would be inconsistent with 3.179. UK proposed using the term ‘reasonably practicable measures’. France suggested referring only to ‘measures’. <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>3.183</td>
<td>Australia proposed the addition of text specific to CT. WHO and Secretariat felt it was implicitly covered in subsections (a) and (b) PAHO felt that that the text should be deleted and replaced by a less detailed requirement which would be supported by guidance <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>3.183 (b)</td>
<td>Japan asked for the addition of text referring to a body map of exposure when high skin dose is anticipated. <strong>Secretariat to resolve</strong></td>
</tr>
<tr>
<td>Chapter 4</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>USA underlined the importance of the NUSSC comment to ensure consistency with DS-44</td>
</tr>
<tr>
<td>4.1</td>
<td>PAHO asked for inclusion of a reference to the International Health Regulations. It was agreed that, as previously discussed, this was not appropriate.</td>
</tr>
<tr>
<td>R 4-2</td>
<td>Israel proposed that the order of the requirement be reversed for consistency with the title and the associated requirements</td>
</tr>
<tr>
<td>4.8 (b)</td>
<td>Spain and Finland asked for the term ‘dose’ to be changed to ‘projected dose’. Following discussion, it was agreed that this change would not be...</td>
</tr>
</tbody>
</table>
appropriately. Agreed to use the expression ‘expressed in terms of received and projected dose’, or similar.

| 4.14 – 4.15 | France felt that it could be difficult to manage an emergency situation of the dose is limited to either 20 or 50 mSv and suggested that noted that a value of 100 mSv would be consistent with the ICRP. It was noted that the current text has been agreed with the ILO. During discussion the point was made that the exceptions listed in 4.15 cover most of the activities that are likely to give rise to high doses and it was necessary to redraft the text to differentiate between those directly involved in the emergency response (and therefore likely to receive high doses) and those involved in ancillary emergency response activities. |
| 4.21 | Finland noted that in many instances the limits for occupational exposure are applied prior to a decision to move from an emergency exposure situation to an existing exposure situation and that this needs to be reflected in the text. |

**Proposed new text from Finland accepted**

### Chapter 5

| R 5-1 | The requirement to identify existing exposure situations was considered unrealistic (proposed by USA and supported by Brazil, UAE, UK, PAHO and Finland) as this is not what normally happens. However, it is important that the government is required to act once existing exposure situations come to light. ILO wanted the existing requirements strengthened to require the government to both look for and identify existing exposure situations; Ireland and Israel proposed that 5.3 could become the overarching requirement. Agreed to accept the proposal from USA. |
| 5.3 | This is now a stronger requirement than the overarching requirement and needs to be amended or deleted |
| 5.6 | UK pointed out that when workers enter an area to remediate, this becomes a planned exposure situation. As such, the occupational dose limits should apply and the additional dose to the public should not exceed 1 mSv. Secretariat pointed out that in WS-R-3 it is allowable to have a higher public dose but that this needs to justified as part of the authorization. UK wants wording reviewed |

**Secretariat to resolve**

<p>| R 5-3 | UAE asked that the text be reviewed for clarity |
| 5.12 – 5.14 | Text to be reviewed for consistency in line with written comments received |
| R 5-4 | New wording proposed by NEA accepted |
| 5.20 | Agreed that all changes to the text relating to radon (here and elsewhere in the document) should be reviewed after the technical meeting in December |</p>
<table>
<thead>
<tr>
<th>R 5-5</th>
<th>Japan felt that a requirement to establish reference levels was too specific and that greater flexibility was required</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Secretariat to resolve</strong></td>
</tr>
</tbody>
</table>

### Schedule 1

#### Table I-1

Proposals were received from Germany and Australia prior to the meeting for inclusion of additional radionuclides, primarily related to uses in medicine. This was supported by Japan, Slovenia and the UK. The UK suggested that the table be included as an appendix to the BSS with guidance on how to calculate exemption values for radionuclides not already listed.

It was noted that, while the values in this table are also used in transport, TRANSSC will follow the lead of RASSC and will adopt whatever values are agreed and subsequently appear in the BSS. The need for harmonization was supported by the UK and the USA.

The EC noted that the values for uranium and thorium in Table I-1 are more restrictive than those in Table I-2 because the ‘sum rule’ is applied. The numbers in both tables should be identical. The EC also noted that no sum rule is applied between natural and artificial radionuclides.

**Secretariat to resolve**

#### Table I-2

Japan asked that the same radionuclides that appear in Table I-1 should also be listed in Table I-2.

The UK referred to RS-G-1.7 and the possible need to set lower values to limit public dose from building materials. This needs to be referred to in the text.

**Secretariat to resolve**

#### I-3

NEA asked that definitions be given for what is meant by ‘moderate’ and ‘bulk’ amounts. This was not supported by EC and UK who felt that the regulatory body should have the flexibility to deal with situations on a case-by-case basis. The Secretariat suggested the addition of a footnote for clarification.

**Secretariat to resolve**

#### I-4

EC felt that the text needed further clarification as the exemption of natural material needs to be handled with great care; clearance is more straightforward.

**Secretariat to resolve**

#### I-5

The Secretariat noted that this appeared in the 1996 BSS as a footnote but it was decided that it should be moved to become a requirement. USA noted that the text should not be either deleted or again become a footnote without consulting TRANSSC – it would not be desirable to have a situation where material is regulated under the BSS but not in transport.

**Secretariat to resolve**

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Schedule 2
<table>
<thead>
<tr>
<th>Schedule 3</th>
</tr>
</thead>
</table>
| III-1 | UK, supported by Belgium, asked that the dose limit for the lens of the eye should be reduced. It was noted that the ICRP plans to publish its advice on this issue before the end of 2009. It was agreed that this will be reconsidered at this time and that this issue will be included in the cover note sent to Member States.  
**Secretariat to resolve** |
| III-6(a) | Brazil noted that the equation referring to $H_{P}(10)$ is incorrect and needs to be amended  
**Secretariat to resolve** |
| Table III-1 | NEA requested that the expression ‘annual exposure per unit radon concentration’ be changed to ‘annual average exposure…..’ |

<table>
<thead>
<tr>
<th>Schedule 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table IV</td>
</tr>
</tbody>
</table>
Annex III

Participation

The Committee

S. Chelbani, Algeria
L. Van Bladel, Belgium
E. Rochedo, Brazil
P. Thompson, Canada
I. Kralik, Croatia
K. Petrova, Czech Republic
M. Ohlenschlaeger, Denmark
M. Markkanen, Finland
J. Godet, France
M. Helming, Germany
L. Koblinger, Hungary
S. Widodo, Indonesia
M. Kardan, Iran
J. Koch, Israel
L. Bologna, Italy
Y. Inoue, Japan
B. Lee, Republic of Korea
A. Mastauskas, Lithuania
M. Mishar, Malaysia
M. Ali, Pakistan
A. Merta, Poland
A. Oliveira, Portugal
S. Mikheenko, Russian Federation
V. Jurina, Slovakia
A. Calvo, Spain
A. Almen, Sweden
A. Leupin, Switzerland
T. Pavlenko, Ukraine
J. Loy, United Arab Emirates
I. Robinson, United Kingdom (Chairman)
R. Lewis, United States of America
Advisors

P. Bérard, France
JF Lecomte, France
A. Böttger, Germany
A. Schmitt-Haring, Germany
T. Homma, Japan
T. Inokuchi, Japan
K. Ito, Japan
H. Yonehara, Japan

International Organizations

A. Janssens, European Commission (EC)
P. Bosquet, European Nuclear Installation Safety Standards Initiative (ENISS)
D. Byron, Food and Agriculture Organization of the United Nations (FAO)
C. Clement, International Commission on Radiological Protection (ICRP)
M. Voytchev, International Electrotechnical Commission (IEC)
S. Niu, International Labour Organization (ILO)
J. Miller, International Source Suppliers and Producers Association (ISSPA)
E. Lazo, Nuclear Energy Agency of the Org. for Economic Co-operation and Development (NEA/OECD)
M. Pinak, Nuclear Energy Agency of the Org. for Economic Co-operation and Development (NEA/OECD)
M. del Rosario Pérez, World Health Organization (WHO)
P. Drake, World Nuclear Association (WNA)
R. Holyhead, World Nuclear Association (WNA)
S. Miyazaki, World Nuclear Association (WNA)
S. Saint-Pierre, World Nuclear Association (WNA)
IAEA Staff Members

E. Amaral, DIR-NSRW
T. Boal, Scientific Secretary RASSC
R. Czarwinski, SH-RSM/NSRW
D. Delattre, Scientific Secretary CSS
D. Louvat, SH-WES/NSRW
P. Metcalfe, UH-WES/NSRW
K. Mrabit, SH-SSCS/NS
S. Siraky, Scientific Secretary, WASSC
J. Stewart, Scientific Secretary, TRANSSC
A. Nilsson, SH-NSNS
W. Stern, SH-IEC
E. Buglova, IEC
V. Berkovsy, NSRW
J. Le Heron, NSRW
J. Hunt, NSRW
V. Ljubenov, NSRW
E. Reber, NSRW
J. Rowat, NSRW
D. Telleria, NR from NSRW
H. Suman, NSRW
K. Varley, NSRW
J. Wheatley, NSRW
D. Wymer, NSRW
I. Ferris, FAO
D. Delves, NS-SSCS
G. Philip, NS-SSCS
S. Calpena, NSNI
G. Caruso, NSNI
M. Gasparini, NSNI
D. Graves, NSNI
M. Kearney, NSNI
A. Renev, NSNI