Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

TM-49609

VIC C0213 Conference Room

IAEA Headquarters, Vienna

23 to 27 March 2015

Meeting Report
1. OPENING REMARKS

1.1. IAEA Division of Radiation, Transport and Waste Safety

Mr Pil Soo Hahn, Director, Division of Radiation, Transport and Waste Safety opened the meeting and welcomed all participants. He noted that this is the final Technical Meeting to follow up on the Conference President’s Findings and the recommendations resulting from the October 2011 International Conference on the Safe and Secure Transport of Radioactive Material. He identified four topical transport safety areas including the basis of the provisions (transport safety regulations), national implementation and industry compliance, emergency response, and regional considerations to be addressed at the meeting. Previous technical meetings have addressed the other transport safety topical areas included in the Conference President’s Findings. Mr. Hahn asked the Technical Meeting to review the actions recommended by the March 2012 Technical Meeting (TM-43650) to address the four transport safety topical areas and to provide recommendations for final disposition of the remaining actions to complete the IAEA’s response to the 2011 Conference President’s Findings. A copy of Mr. Hahn’s opening remarks is included in Annex 1.

Steve Whittingham, Head, Transport Safety Unit, IAEA also welcomed all participants and recognized the large number of attendees from Member States that did not routinely participate in transport safety meetings or Transport Safety Standards Committee (TRANSSC) meetings. He encouraged all Member States and especially the representatives from newly participating countries at the TM to use this meeting as a start for more routine engagement with the Transport Safety Unit and TRANSSC. Mr Whittingham emphasized the importance of the work of the TM to provide the basis for IAEA closeout of the recommendations resulting from the 2011 international transport conference. A copy of Mr Whittingham’s opening remarks is included in Annex 2.

1.2. Chair Opening

Mr Bill Brach, Chair of the TM and previous Chairman of TRANSSC, thanked Mr Hahn for opening the meeting, welcomed all participants, and identified the importance of this final TM to address the Conference President’s Findings for the four remaining transport safety topical areas resulting from the 2011 international transport conference. Mr Brach noted that the meeting will focus on transport safety issues and that transport security is being addressed in other venues. Mr Brach also noted the expertise and experience that each attendee brings to the meeting and the importance of each person’s contribution to the success of the meeting. A copy of Mr Brach’s opening remarks is included in Annex 3.

1.3. Introductions

The participants in the TM were given the opportunity for short introductions. A group picture of the meeting attendees was taken on the Vienna International Centre plaza. A list of meeting attendees is included in Annex 4.

1.4. Administrative Arrangements

Mr Chris Bajwa, the Scientific Secretary for the meeting, provided a brief discussion of administrative procedures and arrangements related to the meeting.

1.5. Agenda

Mr Brach reviewed the proposed draft meeting agenda. He identified the Secretariat’s plans to have four separate, parallel working groups to address the issues of basis of the provisions, national implementation and industry compliance, emergency response, and regional considerations. The draft agenda identified a possible reconvening of the plenary on Thursday, late morning, March 26, for a brief overview of the status of the working group deliberations and preliminary recommendations. The TM plenary accepted the proposal to reconvene on Thursday, March 26 and approved the agenda as discussed and provided on the TM meeting web site. The final approved meeting agenda is included in Annex 5.

1.6. Terms of Reference

The terms of reference for the meeting were reviewed and accepted. The Terms of Reference are included as Annex 6.

1.7. Conduct of the Meeting

The conduct of the meeting was discussed during the review of the agenda, item 1.5 above.
2. PRESENTATION OF HISTORICAL INFORMATION

2.1. Review of Presidents Findings and Conclusions and Recommendations of Previous TMs

Mr Whittingham provided an overview of the 2011 international transport conference and summarized the Conference Report and Findings by the Conference President Ambassador Brennan (Ireland). Mr Whittingham also provided a summary of the previous TMs (March 2012, April 2013 and April 2014) that addressed the outcome and recommendations resulting from the 2011 conference. A copy of Mr Whittingham’s presentation was posted on the TM meeting SharePoint site.

2.2. Transport Safety Work Plan - Development of Plan and Use in March 2012 TM

Mr Brach provided an overview of the March 2012 TM that prepared the recommended actions to address the Conference President’s Findings. Mr Brach described how the Transport Safety Work Plan was developed and how the plan was considered by the March 2012 TM in formulating the recommended actions. He provided a list of specific actions in the Transport Safety Work Plan that were considered in each of the four topical areas that were identified by the March 2012 TM and are now included in the review of the present TM. A copy of Mr Brach’s presentation was posted on the TM SharePoint site.

2.3 Transport Safety Work Plan – Current Status and Update

Mr Paul Hinrichsen, South Africa, current Chair of TRANSSC, presented an overview and update of the current Transport Safety Work Plan, also referred to as the Transport Three Year Work Plan. Mr Hinrichsen identified the current ongoing and planned actions and status of action items relevant to the four topical areas which are the focus of the present TM. Mr Hinrichsen noted that the plan is presently in a revised draft status and will be presented at the next TRANSSC meeting in June 2015 for TRANSSC review and comment. A copy of Mr Hinrichsen’s presentation was posted on the TM SharePoint site.

2.4 Update on IAEA Activities Related to Findings of 2011 Conference

Mr Whittingham presented an update on IAEA plans and activities related to the Conference President’s Findings of the 2011 international transport conference. The focus of Mr Whittingham’s presentation was on the four topical areas to be addressed in the present TM. Collectively, the presentations by Mr Whittingham, Mr Brach and Mr Hinrichsen provided the relevant background information necessary to review and make recommendations on disposition of the actions associated with each of the four topical areas to be addressed in this TM (TM-49609). A copy of Mr Whittingham’s presentation was posted on the TM SharePoint site.

2.5 General Outcomes for Working Groups

Mr Bajwa presented an overview of the expected outcomes for each of the four working groups that will meet in parallel to review and provide recommendations on disposition of the actions associated with the four topical areas to be addressed by this TM. Mr Bajwa identified the specific work to be performed by each working group and the requested outcome or product from each working group. He also noted that the Secretariat had included some additional review activities relevant to the respective topical areas. He noted that time permitting the Transport Safety Unit would appreciate the working group’s review and comment on the added items. A copy of Mr Bajwa’s presentation was posted on the TM SharePoint site.

2.6 Terms of Reference for WGs

The terms of reference for the four working groups were presented. Mr Brach identified the Chairs of the four working groups.

- Working Group 1, Basis for the Provisions (Regulations) – Chair, Mr Paul Hinrichsen, South Africa
- Working Group 2, National Implementation and Industry Compliance – Chair, Mr Jeff Ramsay, Canada
- Working Group 3, Emergency Response - Chair Mr Guy Lourtie, Belgium
- Working Group 4, Regional Considerations – Chair Ms Muzna Assi, Lebanon
The terms of reference for the four working groups were approved by the TM plenary and are provided as Annex 7.

3. DISCUSSION/WORKING GROUPS

3.1 – 3.3 Working Groups Formed and Conduct Deliberations

At the end of the meeting on Monday, 23 March 2015, the meeting attendees selected the working group in which they would participate. The four parallel working groups began their deliberations on Tuesday morning, 24 March. Working group deliberations continued all day Tuesday, 24 March, all day Wednesday, 25 March, and the morning of Thursday 26 March.

3.4 Reconvene Plenary

3.4.1 Information Presentations and Working Group Updates

Plenary was reconvened late morning on 26 March, 2015 for the four working groups to provide a brief status report including a summary of deliberations, preliminary recommendations, and any identified issues that may warrant discussion by one or more of the other working groups.

3.4.1.1 Working Group Discussions

3.4.1.1.1 Working Group 1 - Basis for the Provisions (Regulations)

Mr Paul Hinrichsen, Working Group 1 Chair, provided a summary of the working group’s deliberations on the basis for the transport safety regulations. Mr Hinrichsen noted that the different IAEA documents related to the transport regulations have different purposes. SSR-6 contains “what” you must do; SSG-26 suggest an approach of “how” you may do it; and the Technical Basis generally contains the basis of the regulations and explains “why” the provisions of the regulations should be done. The Working Group recommended that the Technical Basis Document be updated every two years at the end of the biennial regulatory review cycle (including a review cycle that does not result in an SSR-6 revision cycle). There were also suggestions provided on how the Technical Basis Document could be better aligned with the regulations in SSR-6, and be made more “user friendly” for continued use. It was also suggested that the Technical Basis Document be distributed widely (for example, to the UN Modal bodies) for reference and information. The point was made that there must be a mechanism to maintain the Technical Basis Document, and that this will need to be agreed upon in TRANSSC. The point was made that all the information that is necessary to comply with the requirements in SSR-6, should be in SSG-26.

Mr Hinrichsen then noted the status of the recommended actions from the 2011 transport conference and the 2012 follow-up TM. It was determined that these recommendations were either implemented or in the process of being implemented.

3.4.1.2 Working Group 2 - National Implementation and Industry Compliance

Mr Jeff Ramsay, Working Group 2 Chair, provided a summary of the working group’s deliberations on national implementation and industry compliance for radioactive material transport. Mr Ramsay provided an overview of the draft working group report, and discussed the actions taken by the working group as outlined by the terms of reference. Mr Ramsay reviewed the working groups actions and discussions related to the recommendations of the 2011 transport conference and the 2012 follow-up TM. Most of the recommendations from the October 2011 conference have been either completed or the IAEA and/or TRANSSC have processes in place to implement the actions, some of which are routine, ongoing actions. However, two recommendations were identified for which action has not been initiated to address the March 2012 recommendations. For the two recommendations the working group concluded that the tasks are too broad, resource intensive and a positive outcome is not necessarily assured. The working group proposed an alternative approach for the Secretariat and/or TRANSSC to address the issue underlying the two recommendations.

Mr Ramsay then reviewed the recommendations made related to the additional tasks highlighted in the working group terms of reference. The working group supported the value and benefit of the two IAEA Safety Guides, TS-G-1.4, Management Systems and TS-G-1.5 Compliance Assurance, and the European Association of Competent Authorities guide on
inspections. The working group also developed a draft questionnaire for reporting difficulties encountered in the transport of radioactive material.

3.4.1.3 Working Group 3 - Emergency Response

Mr Guy Lourtie, Working Group 3 Chair, provided a summary of the working group’s deliberations on emergency response for radioactive material transport. Mr Lourtie provided an overview of the draft working group report, focusing on the working group review of the recommendations of the 2011 transport conference and the 2012 follow-up TM. The major focus of the working group deliberations was on the current status of the IAEA Safety Guide, TS-G-1.2, Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material. The working group also reviewed a draft of an emergency response document being developed by the IAEA Incident Emergency Centre and recommended that much of the contents of that planned document is more appropriately contained in an IAEA Safety Guide and that the material be moved to and included in the revision of TS-G-1.2. The EPR document should contain more detailed information on practical aspects of preparedness, implementation, and response.

The working group recommended that the ongoing action to review and revise TS-G-1.2 as recommended in the March 2012 Technical Meeting be continued with incorporation of much of the content of the draft IEC document into the transport Safety Guide. Given the elapsed time since the 2011 international transport conference, the working group also recommended that an emphasis should be given to complete the revision and publication of TS-G-1.2.

The need for training in the area of emergency response was also identified with recommendations that separate training be considered for those not familiar with radioactive material transport, first responders, and emergency preparedness management.

3.4.1.4 Working Group 4 - Regional Considerations

Ms Muzna Assi, Working Group 4 Chair, provided a summary of the working group’s deliberations on regional considerations. Ms Assi provided an overview of the findings of the working group related to the recommendations of the 2011 transport conference and the 2012 follow-up TM. The working group noted that all the recommendations resulting from the 2011 transport conference and the March 2012 Technical Meeting had either been completed or were ongoing. Further the working group had a number of recommendations for either expanded or accelerated actions for regional networks and support areas. The recommendations include, for example: 1) development of a questionnaire to identify and classify a Member State’s radioactive material program based on the scope and extent of radioactive materials being transported within or into/out of the Member State, 2) development and use of a modular approach for targeted training based on Member State needs, 3) development of model regulations especially for emerging Member States and Member States with limited national radioactive material transport activity.

Recommendations from the working group on the other topics including Regional Networks, the Core Model, e-learning, regional web sites, and TC support were also reviewed by Ms Assi.

During a general discussion of all the working group reports, Ms Assi noted a common recommendation across most of the working groups involving training. She also offered there may be additional common considerations that may warrant focused attention in the TM meeting report and perhaps focused recommendations to the IAEA. Mr Whittingham and Mr Bajwa supported the suggestion and added additional considerations such as: should the IAEA conduct another transport conference? They also mentioned additional areas of focus such as support to regional networks and further development of the core model concept for identifying the levels and needs for transport regulations. It was generally agreed to consider the prospect of common and more generally directed recommendations building on the individual recommendations of the four working groups during the TM Plenary discussion on Friday morning following presentation of the four working group reports.

3.5 Dismiss Plenary - Return to Working Groups

3.6 Reconvene Plenary
Plenary was opened by Mr Brach on Friday morning 27 March. He identified that a discussion of recommendations common to all or some of the working group reports would be added immediately following completion of the review of the four working group reports. In addition, Mr Bajwa provided a brief overview of access to the meeting SharePoint site via NUCLEUS, identified what steps need to be taken to register in NUCLEUS, and provided an acknowledgement of the challenges that exist in finding the meeting SharePoint site from the main NUCLEUS page. This latter issue will be addressed and resolved by the Secretariat in the near future.

3.7 Working Group Reports

3.7.1 Working Group 1 - Basis of the Provisions (Regulations)

Mr Hinrichsen, the WG1 Chair provided an overview of the discussions, deliberations, and recommendations of WG1 related to the Technical Basis Document, and then those related to the Presidents Findings from the 2011 transport conference. The WG considered the recommendations on the Basis of the Provisions from the 2011 conference and 2012 follow-up meeting are closed.

Mr Hinrichsen discussed the working group deliberations on the hierarchy of the transport regulations, the transport guidance (advisory material) and the Technical Basis Document noting that respectively those documents describe the “what,” the “how,” and the “why” of the transport regulations. A brief discussion of the numbering system provided for in the Regulations, the advisory material, and the Technical Basis Document ensued with a recommendation that the means or method of identifying regulations by their respective number be more clearly presented in the Technical Basis Document and that possibly a table may be developed to present the inter-relationship of the three documents. The working group also recommended that after the completion of each biennial review or revision of SSR-6, that a review and revision of the Technical Basis Document be considered.

The TM plenary accepted the report and recommendations of Working Group 1 to be included as conclusions and recommendations of this TM, TM-49609. The Working Group 1 report is included in Annex 8.1.

3.7.2 Working Group 2 – National Implementation and Industry Compliance

Mr Ramsay, the WG2 chair provided an overview of the discussions, deliberations, and recommendations of WG2 related to the Presidents Findings from the 2011 transport conference, primarily related to items on the transport work plan. In addition Mr Ramsay discussed other areas tasked to the WG in the Terms of Reference, related to the review of TS-G-1.4, and TS-G-1.5, validity (term length) of transport certificates, the EACA inspection guidance, and the development of a draft questionnaire for Member State implementation of the transport regulations.

In general, the WG considered the recommendations on the National Implementation and Industry Compliance from the 2011 conference and 2012 follow-up meeting, with two exceptions, were either closed or in process. The two exceptions were the recommendations concerning identifying variations in national regulations and the conduct of mini-TranSAS reviews which had not yet implemented. The WG recognized the two recommendations are extremely resource intensive, complex and may not yield a useful outcome if implemented as described in the 2012 follow-up TM recommendations. For these two recommendations, the WG provided an alternative recommended action that would address the underlying issues, and should be achievable with reasonable resources.

The working group concluded that both transport Safety Guides TS-G-1.4 (management systems) and TS-G-1.5 (compliance assurance) are out of date and should be reviewed and revised. The EACA guidance should be considered in the review of the two Safety Guides. The working group also recommended that the Advisory Material in SSG-26 be revised to provide guidance on the length of terms for transport certificates. Presently no such guidance is available. The working group also developed a draft questionnaire to provide the IAEA general information on the status of each Member State’s radioactive material transport regulatory program.
From the Working Group 2 deliberations, no changes were proposed for the current review cycle for SSR-6 or the advisory material on SSG-26.

The TM plenary accepted the report and recommendations of Working Group 2 to be included as conclusions and recommendations of this TM, TM-49609. The Working Group 2 report is included in Annex 8.2.

3.7.3 Working Group 3 – Emergency Response

Mr Lourtie the WG 3 chair provided an overview of the discussions, deliberations, and recommendations of WG 3 related to the Presidents Findings from the 2011 transport conference and 2012 follow-up TM. Specific recommendations were offered related to the revision of the TS-G-1.2 on Emergency Preparedness and Response, and the development of the EPR guidance on responding to radiation emergencies during transport.

In general, the WG considered the recommendations on Emergency Response from the 2011 conference and 2012 follow-up meeting were either closed or in process, but noted that progress in reviewing and revising TS-G-1.2 has not been achieved. The WG recommended that the Agency focus attention and resources to complete this review and revision in a much more timely manner. The working group further noted the need to consider lessons learned from the Fukushima event in the revision of TS-G-1.2.

Discussion ensued on the topic of providing information during emergencies, related to the appropriate contacts in the countries for transport. The working group identified the need for training and for providing general information for emergency personnel not familiar with radioactive material transport, and for specific training on radioactive material transport for first responders and emergency preparedness and response management. The working group also identified the possible benefit of developing a template of general design information on Type B, C and Fissile packages to be available for emergency response purposes.

The TM plenary accepted the report and recommendations of Working Group 3 to be included as conclusions and recommendations of this TM, TM-49609. The Working Group 3 report is included in Annex 8.3.

3.7.4 Working Group 4 – Regional Considerations

Ms Assi the WG 4 chair provided an overview of the discussions, deliberations, and recommendations of WG 4 related to the Presidents Findings from the 2011 transport conference and 2012 follow-up TM. Seven findings and 15 recommendations were developed by the WG in the areas of Training, collaboration between Member States on transport activities, development of “Model Regulations” for transport, and the continued development of regional networks.

In general, the WG considered the recommendations on Regional Considerations from the 2011 conference and 2012 follow-up meeting were either closed or in process. The working group had a number of observations to recommend to the IAEA including asking that the transport training material be available on the web, noting that a modular approach to training would be useful especially for emerging Member States with particular training needs, emphasizing the benefit of inviting emerging Member States to observe transport inspections and licensing reviews in other Member States, and providing assistance to emerging Member States in the development of national legislation and national regulations for regulating the transport of radioactive material.

The TM plenary accepted the report and recommendations of Working Group 4 to be included as conclusions and recommendations of this TM, TM-49609. The Working Group 4 report is included in Annex 8.4.

3.8 Concluding Discussion

The meeting Chair, Mr Brach provided a summary of the presentations provided by the working group chairs. He noted specifically that the four Working Groups had concluded that, with the exception of only three recommendations, all the other transport safety recommendations resulting from the October 2011 international transport conference had either been closed or were acceptably in progress. For the three remaining recommendations, Working Group 2 and Working Group 3 proposed actions for the IAEA to consider to address the three recommendations and to
provide a basis for the IAEA to close out the transport safety outcome and findings from the 2011 conference.

Mr Brach further noted that the recommendations included in the four working group reports (Annex 8.1 – 8.4) have been prioritized to provide the IAEA useful input to their deliberations on new or revised actions to consider. Mr Brach also recognized and highlighted to the TM Plenary that the Transport Safety Unit has limited resources (staffing includes the Unit Head and two full-time technical staff) to address not only the large number of ongoing transport safety activities but they are also limited in what could be considered in adding new actions.

Ms Assi then provided an overview of some common or overarching recommendations that were discussed and developed by the Working Group Chairs and discussed in Plenary by meeting participants. Ms Assi presented a table of recommendations for the IAEA that resulted from the meeting of the four Working Group Chairs. Ms Assi highlighted the need and high importance, especially for emerging Member States, for certain actions including:

- developing model regulations for Member States with limited domestic transport activities
- completing development of the core model for transport regulations
- providing continued funding for regional networks and for regional websites
- developing topic specific modules for transport training
- revising transport Safety Guides TS-G-1.2 (emergency preparedness) and TS-G-1.3 (radiation protection), and
- requesting IAEA to arrange a Technical Meeting or a Consultancy Meeting to address these topics

Mr Brach noted his earlier observation on the very limited resources and staff available to the Transport safety Unit. The identification of actions to be addressed immediately needs to be considered in the context of the very limited resources along with the practical limitations of the existing budget.

The Secretariat (Mr Whittingham) provided some insight on the current approach of the Transport Safety Unit to the challenges of ensuring safe transport across the globe. He also emphasized the focus he and his staff are placing on the regional networks and the regional approach addressing transport safety issues. The concept of adoption by emerging countries of the European ADR for regulations related to the road transport of radioactive material was mentioned by Mr Whittingham.

The “hierarchy” of the regulations was also mentioned. As well, it was recognized that regulations for radiation protection, for instance, will need to be in place before or introduced at the same time as the introduction of transport regulations.

The recommendations of the four Working Group Chairs were generally agreed to by the TM meeting participants and will be provided to the IAEA for their consideration. A copy of the presentation by Ms Assi on the Working Group Chairs review of common recommendations is included as Annex 9.

4 REPORT AND CLOSING

4.1 Plenary – Review of Report

The preliminary draft meeting report was posted on the TM meeting SharePoint site on the evening of 26 March 2015. The draft report was complete for all the TM meeting agenda items addressed through close of business on 26 March 2015 (complete for TM discussions 23 – 26 March). During the review of the preliminary draft report, two comments were offered from the Chairs of Working Groups 1 and 3, and their requested changes were made.

Mr Brach, TM Chair stated that the TM meeting report would be revised to include the discussions of 27 March 2015. Mr Bajwa stated that he planned to post the final TM meeting report within the next few weeks and that he would send an email to all TM meeting participants to inform them when the report is available on the TM SharePoint web site.

4.2 Closing

4.2.1 TM Chair
Mr Brach thanked all the participants for their active engagement in the meeting and noted their strong commitment to the safe transport of radioactive material. He thanked Mr Hinrichsen, Mr Ramsay, Mr Loutrie, and Ms Assi for serving as the four Working Group Chairs. Mr Brach observed that the Secretariat has a significant task ahead to review the recommendations and outcome of this TM. He concluded that he believes the TM accomplished and met the IAEA’s expectations and requested actions in the TM’s Terms of Reference. Mr Brach thanked the IAEA for arranging this important meeting and recognized each of the Transport Safety Unit staff and the Conference Clerk for their hard work in making this TM a success. Mr Brach concluded his remarks and wished all a safe journey home.

4.2.2 Transport Safety Unit Head

Mr Whittingham also thanked all the participants for contributing to a very effective meeting. Mr Whittingham discussed the work of the Transport Safety Unit to develop the Core Model for transport and the strong commitment to support and continue the development of the regional networks. He thanked the TM participants for providing the IAEA the TM’s recommendations on their review of the recommendations resulting from the October 2011 international transport conference. He noted that the information and conclusions of the TM will provide the IAEA the basis for closing out the transport safety recommendations from the 2011 conference. Mr Whittingham recalled his opening remarks in which he identified the large number of newly participating Member States in this transport safety meeting. He encouraged all the participants to use this TM meeting as a start and to continue participate in future IAEA meetings, TRANSSC meetings and regional network activities. Mr Whittingham concluded his remarks by wishing safe travels for all participants, and then formally closed the meeting.

Annexes

1. Opening Remarks by Director, Division of Radiation, Transport and Waste Safety
2. Opening Remarks by Head Transport Safety Unit
3. Opening Remarks by TM Chair
4. List of Attendees
5. Final Agenda
6. Terms of Reference for TM
7. Terms of Reference for Four Working Groups
8. Working Group Reports
   8.1 Working Group 1 Report
   8.2 Working Group 2 Report
   8.3 Working Group 3 Report
   8.4 Working Group 4 Report
9. Presentation on Working Group Chair’s Review of Common Recommendations
Annex 1

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Opening Remarks by Director, NSRW
Good afternoon! I would like to welcome all of you to Vienna, and thank each of you for your continued dedication to the safe transport of radioactive material and of your support of the work that the IAEA is doing in this area. For some of you, this is your first visit to Vienna, and I extend a special welcome to you. We have arranged for the best possible weather, and I hope that you will enjoy your week in this beautiful city!

This week you will complete the important work, ongoing for the last 4 years, of considering all the findings of the International Conference on Safe and Secure Transport of Radioactive Material, held here in October 2011 to celebrate the 50th anniversary of the issue of the first Regulations for the Safe Transport of Radioactive materials by the IAEA in 1961.

The subtitle of the conference was: “Creating a safe, secure and sustainable network”. If there was no radioactive material to transport, then it would be both safe and secure, but it would fail to meet that important third strand of sustainability. The conference was important to your work, in that it identified the need for harmonisation between UN bodies, between Member States, between safety and security, and of course, across industry, in order to deliver the sustainable framework.

Some of you present today were able to attend that conference and contributed to making it a great success. I would like to acknowledge those of you who are with us today who attended the 2011 conference and at least two of the follow up meetings. We will look to you during this week to confirm that our actions are in line with the spirit of the original conference.

While we have made significant progress in the past several years, our work on safe transport is far from complete. I hope that this week you
will be able to focus on the next 10 to 15 years, and start to make plans for the actions that need to be taken in that timeframe.

With the start of the review cycle in January for the 2012 edition of the transport regulations (SSR-6), the time for recommending changes to the regulations that may improve safety is now. Some of the findings from the 2011 conference may suggest potential improvements to the transport regulations. I ask that you consider this in your deliberations.

As you are aware from your preparation for this meeting, recommendations in 8 topical areas were provided during the conference follow-up Technical Meeting held in March of 2012. These areas include: Harmonisation, Denial of Shipments, the basis of the provisions, Safety requirements and security recommendations, National implementation and industry compliance, Emergency Response, Communication, and Regional considerations.

The Technical Meeting held last year (2014) considered 3 of these topical areas. Because the safety requirements and security recommendations are out of scope for this TM, your working groups will focus on the remaining 4 topical areas, namely: The basis of the provisions, National implementation and industry compliance, Emergency response and Regional considerations. We thank those of you who have volunteered to shepherd these discussions as working group chairs in advance for your service.

We look to you: our distinguished delegates, representatives of our Member States, and experts in transport, to spell out a vision for the next decade of transport safety, keeping in mind the resources and tools that are currently available to the Agency. How will we improve implementation of the regulations by Member States, and how will we
increase compliance by industry? I believe these are vital questions that we will look to you to answer.

I am particularly pleased to welcome Mr Bill Brach of the United States, the former Chair of the Transport Safety Standards Committee and an attendee of the 2011 conference, as the Chair of this meeting, I wish you well over the next five days, and have no doubt that as a result of this meeting, you will provide an effective vision for what needs to be done to advance transport safety in the years to come. I now turn to Mr. Steve Whittingham, Head of the Transport Safety Unit, for some opening remarks.
Annex 2

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Opening Remarks by Unit Head, Transport Safety Unit
Thank you Mr Hahn for opening our meeting. I too welcome you to Vienna. I see a few familiar faces in attendance but I note that many of you are attending your first IAEA transport meeting. I want to offer a very warm welcome to you and encourage you to not only actively participate in this meeting but also let this be the first of many IAEA transport meetings and activities for you to engage in and to support us in our mission to assure the safe international transport of radioactive material.

I want to spend just a minute or two to briefly discuss our efforts over the past two years to reach out and form regional networks of Member States to coordinate and collaborate on radioactive material transport within each region. A few of you are very familiar with and already support our regional network initiative, but, for the majority of you, let me explain what we are trying to accomplish through the regional networks. We have a number of objectives we are striving to achieve:

First, all land transport of international radioactive material shipments involves transport through at least two or more neighboring countries. As well many air and sea/water shipments also involve transport through neighboring ports and terminals. Through the regional networks we are striving to identify the national agencies and points of contact in each region so that working relationships can be established between the countries in each region. This working relationship can support the necessary transport reviews, shipment coordination, shipment approvals, and transport certificate revalidations that may be required to facilitate and provide for the safe and uneventful international transport of shipments within the region.

A second objective, and from my perspective an equally important objective as the first objective that I just summarized, is the recognition that not all countries have in place a fully funded, staffed and/or documented transport regulatory infrastructure within their country. Through the regional networks, the IAEA is able to identify and, with our very limited resources, support the development of the necessary transport regulatory infrastructure. However, a major objective we have in forming and supporting the regional networks is to encourage the sharing and support between countries within the region. For example one country may have a strength in a particular transport area that can be shared and that country
can provide support to a neighboring country. The transport areas could include: the national legislation that establishes the regulatory regime for oversight of radioactive material transport, national regulations that establish the rules and requirements for transport, and the national program for review and/or inspection of transport. Through the regional networks we encourage the countries to engage and support each other with the mutual and common goal of achieving safe transport within their region and for transport through all the countries in the region.

I realize these are high, but not lofty unachievable goals. With the support of each of you, I am confident that we collectively can achieve these goals and objectives for the regional networks.

One additional initiative we have underway that I want to mention is our development of the “core model” for transport. We have found through our work with the regional networks that there are varying needs among Member States for the development of a national regulatory infrastructure for transport. We have developed a model that has multiple levels of a national transport regulatory infrastructure depending on the scope of a country’s needs. Some countries have only a need for transport of radioactive materials to support medical and industrial applications, while other countries may have a domestic/national industry that includes design and approval of transport packages, or has a nuclear power plant, or multiple plants and research facilities, or a complete or partial nuclear fuel cycle industry. Our planned development of the core model will provide an outline of the radioactive material regulatory infrastructure that would meet the needs of each level or scope of a Member State’s transport program requirements. This concept is still in the early stages of development and time permitting during this Technical Meeting, we are asking one of the Working Groups to provide us input and comment on its further development.

Let me now at this point conclude my opening remarks and turn the meeting over to Bill Brach who will Chair this meeting and lead us in our final review and consideration of the transport safety recommendations that resulted from the October 2011 international transport conference. Bill has the background and experience to help guide us in this undertaking having served as Chair of the TRANNSC committee and he participated in the 2011 conference and all the subsequent follow up Technical Meetings.

I again Thank You for your participation in this meeting. I look forward to your recommendations for actions that we should consider to achieve closure on the outcome and recommendations resulting from the October 2011 conference.
Annex 3

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Opening Remarks by TM Chair
I want to “Thank” Mr. Hahn for opening our final Technical Meeting to follow up on the outcome of the October 2011 International Conference on the Safe and Secure Transport of Radioactive Material.

Let me also add my welcome to all our meeting participants and visitors. Some of you here today were also participants in the October 2011 international transport conference and some of you also participated in all or some of the previous Technical Meetings to follow up on the 2011 conference that were held in March 2012, April 2013, and March 2014.

I want to “Thank” the IAEA for asking me to Chair this meeting. It is indeed an honor for me to have this opportunity to work with you in this very important undertaking this week.

We are being asked by the IAEA to review the recommendations that resulted from the October 2011 transport conference and to review the current status of IAEA and Member State actions to address and implement these recommendations. Over the past few years, multiple Technical meetings have addressed the outcome and recommendations resulting from the 2011 conference. There are four remaining primary recommendations that we will address at this meeting. Mr. Hahn listed the four topical areas for our focus in his opening remarks.

Specifically we are being asked at this Technical meeting to address the remaining recommendations that pertain to “transport safety.” Recommendations pertaining to transport security are being addressed in a different venue. While many of the transport safety recommendations have been implemented, there are remaining recommendations that are in various stages of being implemented. This latter category of recommendations; that is, those recommendations that have not been fully implemented will be our focus this week. I anticipate that we may conclude some of the remaining recommendations may no longer be needed based on developments during the past four years. While for other recommendations, I anticipate that we will provide the IAEA our recommendation for actions the IAEA should consider to finalize and to complete the IAEA’s response to the 2011 transport Conference President’s Findings and conference outcomes.
The Secretariat has been very busy preparing for this meeting. To help guide our deliberations the Secretariat has provided copies of the October 2011 Conference President’s Findings, the reports from the previous Technical Meetings, and other background materials. Our plan is to break after this plenary meeting session into four working groups to separately address the remaining conference recommendations. We may reconvene plenary on Thursday morning to review the working group recommendations and see if we can reach a plenary consensus on the recommendations to provide to the IAEA. On Friday we will then hopefully, review and approve the report of this technical Meeting.

The Secretariat will discuss shortly the detailed plans for the conduct of this meeting and will provide additional background information to support our deliberations. So let me now conclude my opening remarks by again welcoming you to our meeting and challenging you to actively engage in our plenary and working group deliberations. Each of you brings a wealth of experience and expertise, and often you will bring a unique or different view point to our deliberations that collectively will help us develop sound recommendations to provide to the IAEA.

Thank you.

Now let’s move to agenda item 1.3
Annex 4

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

List of Attendees
# NOTIFICATION OF AN AGENCY MEETING

**Department of:** Nuclear Safety and Security  
**Division / Section of:** NSRW – Regulatory Infrastructure and Transport Safety Section  
**Issue No.:** 2  
**Issue Date:** 26 March 2015  
**J3-TM-49609**

**Title of meeting:** Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

| Begin Date: 2015-03-23 | End Date: 2015-03-27 | Meeting Room: VIC C0213  
Side Rooms: C0217, 19 & 21 | Ext.: | Convening Time: 13:00 |
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<tr>
<td>Romania</td>
<td>Mr</td>
<td>Georgescu Marius Dumitru</td>
<td>National Commission for Nuclear Activities Control (CNCAN)</td>
<td>2015-03-23</td>
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<td>P.O. Box 4-5, 14, Libertatii Bulevard Sector 5 050706 Bucharest</td>
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<td>Tel: 0040 21 3162754 Fax: 0040 21 3161436 Email: <a href="mailto:georgescudumitru@cn-can.ro">georgescudumitru@cn-can.ro</a></td>
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<tr>
<td>Russian Federation</td>
<td>Ms</td>
<td>Dedova Maria</td>
<td>State Corporation ROSATOM Moscow</td>
<td>2015-03-23</td>
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<td>Tel: 0074999492231 Email: <a href="mailto:mddedova@rosatom.ru">mddedova@rosatom.ru</a></td>
<td>2015-03-27</td>
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<tr>
<td>Russian Federation</td>
<td>Mr</td>
<td>Ershov Vladimir N.</td>
<td>Emergency Response Center (ERC)</td>
<td>2015-03-23</td>
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<td>Minatom of Russia 3rd Verhny Pereulok, 2 194292 St Petersburg</td>
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<td>Tel: 007(921) 3353869 Tel.: 007(812)2977310 Email: <a href="mailto:ershov@nwatom.ru">ershov@nwatom.ru</a></td>
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<tr>
<td>Slovakia</td>
<td>Ms</td>
<td>Bujnova Alena</td>
<td>Ministry of Transport, Construction and Regional Development</td>
<td>2015-03-23</td>
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<td>Namestie Slobody 6 81005 Bratislava</td>
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<td>Tel: 00421918825079 Email: <a href="mailto:alena.bujnova@mindop.sk">alena.bujnova@mindop.sk</a></td>
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<tr>
<td>Slovakia</td>
<td>Ms</td>
<td>Pistekova Zuzana</td>
<td>Bajkalska 27 P.O.Box 24 82007 Bratislava</td>
<td>2015-03-23</td>
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<td>Tel: 00421 258221165 Email: <a href="mailto:zuzana.pistekova@ujd.gov.sk">zuzana.pistekova@ujd.gov.sk</a></td>
<td>2015-03-27</td>
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<tr>
<td>Slovakia</td>
<td>Mr Vaclav</td>
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<td>Nuclear Regulatory Authority of the Slovak Republic (UJD SR)</td>
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<td>Tel: 00335991390 Email: <a href="mailto:Juraj.Vaclav@ujd.gov.sk">Juraj.Vaclav@ujd.gov.sk</a></td>
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<td>South Africa</td>
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<td>National Nuclear Regulator (NNR)</td>
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<td>Eco Glade Office Park, Eco Glade Office 2, Block 6 Witch Hazel Avenue, PO Box 7106 0046 Centurion</td>
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<td>Tel: 0027 84 828 2317 Fax: 0027 126635513 Email: <a href="mailto:Phinrich@nnr.co.za">Phinrich@nnr.co.za</a></td>
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<td>Trinidad &amp; Tobago</td>
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<td>First Engineer Battalion Cumuto Barracks, Arima</td>
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<tr>
<td>United States of America</td>
<td>Mr Brach</td>
<td>E.William, <a href="mailto:ewbrach@gmail.com">ewbrach@gmail.com</a></td>
<td>4600 Jasmine Drive 20853 1737 Rockville, MD</td>
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<td>International Civil Aviation Organization</td>
<td>Ms Rooney</td>
<td>Katherine, <a href="mailto:krooney@icao.int">krooney@icao.int</a></td>
<td>Cargo Safety Section International Civil Aviation Organization (ICAO) 999 Robert Bourassa Boulevard Montréal, Québec H3C 5H7 Canada</td>
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<td>Tel: 001 5149548099 Email: <a href="mailto:krooney@icao.int">krooney@icao.int</a></td>
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</tbody>
</table>
| International Federation of Air Pilots Association | Mr Lempiäinen  
Timo,  
timo.lempiainen@fpapilots.fi | The International Federation of Air Line Pilots' Association (IFALPA)  
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2015-03-27 |

Division of Radiation, Transport & Waste Safety  
Regulatory Infrastructure and Transport Safety Section  
Transport Safety Unit

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Ms Nancy Capadona, Transport Safety Specialist (N.Capadona@iaea.org)  
Mr Chris Bajwa, Transport Safety Specialist (C.Bajwa@iaea.org)  
Mr Loris Rossi, Consultant (L.Rossi@iaea.org)  
Ms Vangeline Parami, Consultant (V.Parami@iaea.org)  
Ms Lynn Gewessler, Team Assistant (L.A.Gewessler@iaea.org)
Annex 5

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Final Agenda
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material,

TM-49609

Room C0213

IAEA Headquarters, Vienna

23 to 27 March 2015

FINAL AGENDA
1.0 OPENING
   1.1. Division of Radiation, Transport & Waste Safety/Transport Safety Unit - Opening
   1.2. Chair Opening
   1.3. Introductions/Meet and Greet/Group Picture
   1.4. Administrative Arrangements
   1.5. Review of Agenda
   1.6. Review of Terms of Reference
   1.7. Conduct of the Meeting
2.0 PRESENTATION OF HISTORICAL INFORMATION
   2.1. Review of Conference President’s Findings, and Conclusions, and Recommendations of previous TMs
   2.2. Transport Safety Work Plan – Development of Plan and Use in March 2012 TM
   2.3. Transport Safety Work Plan - Current Status and Update
   2.4. Update on IAEA activities related to Findings of 2011 Conference
   2.5. General Outcomes for Working Groups (WGs)
   2.6. Terms of Reference for WGs
3.0 DISCUSSION/WORKING GROUPS
   3.1. Working Group (WG) Logistics
   3.2. Dismissal from Plenary to Working Groups
   3.3. Working Group Discussions
   3.4. Reconvene Plenary (If needed)
       3.4.1. Information Presentations and WG updates
   3.5. Dismiss Plenary - Return to Working Groups
   3.6. Reconvene Plenary
   3.7. Working Group Reports
   3.8. Concluding Discussion
4.0 REPORT AND CLOSING
   4.1. Plenary – review of draft report
   4.2. Approval of Draft Report
   4.3. Closing
       4.3.1. TSU Unit Head
       4.3.2. TM Chair

Meeting Chair: E. Brach
Scientific Secretary:  Mr. Chris Bajwa

Schedule*:
Monday: 13:00 start
Tuesday - Thursday: 9:00 start
Friday: 10:00 start, conclude by Lunch time

*Schedule is at the Chair’s discretion and may be modified.

Breaks: mid-morning and mid-afternoon approx. 20 min
       Lunchtime 60-90 minutes
### Monday 23 March

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<th>Topic</th>
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<tr>
<td><strong>1.0 Opening Session</strong></td>
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<tr>
<td>13.00–13.30</td>
<td>1.1, 1.2 Opening Remarks:</td>
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<tr>
<td></td>
<td>• Mr Pil-Soo Hahn, Division of Radiation, Transport and Waste Safety (NSRW)</td>
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<td></td>
<td>• Mr Stephen Whittingham, Transport Safety Unit (TSU)</td>
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<td>• Mr Bill Brach, Meeting Chair</td>
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<td>1.3 Introductions, Meet and Greet, Group Picture</td>
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<td>1.4 Administrative Arrangements</td>
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<td>1.5 Review of Agenda</td>
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<td>1.6 Review of Terms of Reference</td>
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<td>1.7 Conduct of the Meeting</td>
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<tr>
<td>13.30–15.00</td>
<td><strong>2.0 Presentation of Historical Information</strong></td>
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<td>2.1 Review of Conference President’s Findings, and Conclusions, and Recommendations of previous TMs</td>
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<td>2.2 Transport Safety Work Plan – Development of Plan and Use in March 2012 TM</td>
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<td>2.3 Transport Safety Work Plan - Current Status and Update</td>
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<td>2.4 Update on IAEA activities related to Findings of 2011 Conference</td>
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<td>2.5 General Outcomes for Working Groups (WGs)</td>
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<td>2.6 Terms of Reference for WGs</td>
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<tr>
<td>15.00-15.30</td>
<td>Break</td>
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<tr>
<td><strong>3.0 Discussion/Working Groups</strong></td>
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<tr>
<td>15.30-17.00</td>
<td>3.1 Working Group (WG) Logistics</td>
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<td>Working group side rooms: C-0221, C-0219, C-0217</td>
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<td>3.2 Dismissal from Plenary to Working Groups</td>
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<td>3.3 Working Group Discussions</td>
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<td>17.00</td>
<td>Welcome Drinks outside C0213</td>
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### Tuesday 24 March

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<td>09.00-10.30</td>
<td>3.3 Working Group Discussions</td>
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<tr>
<td>10.30-11.00</td>
<td>Coffee and Tea</td>
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<td>11.00-13.00</td>
<td>3.3 Working Group Discussions, cont.</td>
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<tr>
<td>13.30 - 14.30</td>
<td>Lunch</td>
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<tr>
<td>15.30-16.00</td>
<td>Coffee and Tea</td>
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<td>16.00-17.30</td>
<td>3.3 Working Group Discussions, cont.</td>
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### Wednesday 25 March

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<td>09.00-10.30</td>
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<td>10.30-11.00</td>
<td>Coffee and Tea</td>
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<td>11.00-13.00</td>
<td>3.3 Working Group Discussions, cont.</td>
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<td>13.00-14.00</td>
<td>Lunch</td>
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<td>14.00-15.30</td>
<td>3.3 Working Group Discussions, cont.</td>
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<td>15.30-16.00</td>
<td>Coffee and Tea</td>
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<td>16.00-17.30</td>
<td>3.3 Working Group Discussions, cont.</td>
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### Thursday 26 March

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<td>3.3 Working Group Discussions, cont.</td>
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<td>10.30-11.00</td>
<td>Coffee and Tea</td>
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<tr>
<td>11.00-13.00</td>
<td>3.4 Reconvene Plenary (Subject to the Call of the Chair)</td>
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<td>3.4.1 Information Presentations and WG updates</td>
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<td>3.5 Dismiss Plenary -Return to Working Groups</td>
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<tr>
<td>13.00-14.00</td>
<td>Lunch</td>
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<td>14.00-15.30</td>
<td>Working Group Discussions, cont.</td>
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<tr>
<td>15.30-16.00</td>
<td>Coffee and Tea</td>
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<td>16.00-17.30</td>
<td>Working Groups to conclude discussions and finalize WG reports.</td>
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### Friday 27 March

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<td>10.00-11.30</td>
<td>3.6 Reconvene Plenary</td>
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<td>3.7 Working Group Reports</td>
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<td>3.8 Concluding discussion</td>
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### 4.0 REPORT AND CLOSING

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<tr>
<td>11.30-12.00</td>
<td>4.1 Plenary –Review of report</td>
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<tr>
<td>12.00-12.30</td>
<td>4.2 Approval of draft report</td>
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<td>4.3 Closing</td>
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<td>TSU Unit Head</td>
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<td>TM Chair</td>
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Annex 6

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Terms of Reference for TM
TM-49609 - Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

IAEA Headquarters, Vienna
23 – 27 March 2015

TERMS OF REFERENCE

For reasons of economy, this document will not be available at the meeting. Participants are kindly asked to bring their copies to meetings and not to request additional copies.
Terms of Reference

A. Background:

To mark the fiftieth anniversary of the issue of its first Regulations for the Safe Transport of Radioactive Materials in 1961, the International Atomic Energy Agency (IAEA) held the International Conference on the Safe and Secure Transport of Radioactive Material: The Next Fifty Years of Transport — Creating a Safe, Secure and Sustainable Framework (Transport Conference), in Vienna in October 2011.

The President's findings from the Transport Conference were considered in a March 2012 Technical Meeting (TM-43650) which produced a report of recommended activities to address the President's findings. The outline of work prepared for the Technical Meeting (TM) summarized the President's findings under eight topical areas including: harmonization, denials of shipment, basis of provisions, Safety Requirements and security recommendations, national implementation and industry compliance, emergency response, communications, and regional considerations. A ninth topic in the Transport Conference President's findings on liability was not addressed by the Technical Meeting because that topic had been assigned to the International Expert Group on Nuclear Liability (INLEX) for consideration.

The topic of safety and security interface is presently being addressed by the IAEA in the broader context of all Safety Requirements and Nuclear Security Recommendations, including a review of the IAEA’s safety and security committee structures; and, as a result, this topic will not be reviewed further in this TM.

In April 2013, TM-44897 was held to follow up on Transport Conference recommendations involving possible changes to the transport regulations. This TM provided input to the 2013 IAEA biennial review cycle for considering changes to the Regulations for the Safe Transport of Radioactive Material (SSR-6). A third meeting (TM-47137) held in April 2014, focused on the implications of the President's findings from the 2011 conference and the recommendations from the March 2012 TM and April 2013 TM for the specific areas of denial of shipment, communication, and harmonization.

Therefore, this fourth and final meeting to follow up on the 2011 Transport Conference will specifically focus on the remaining recommendations identified at the March 2012 TM-43650 related to: 1) the basis of the regulatory provisions, 2) regulatory implementation and industry compliance, 3) emergency response, and 4) regional considerations (including a focus on regional networks).

B. Summary of Previous Recommendations

The President’s Findings from the October 2011 International Conference on the Safe and Secure Transport of Radioactive Material can be found here.

The findings and recommendations resulting from the March 2012 first Technical Meeting (TM-43650) to follow up on the outcome of the October 2011 international transport conference can be found here.

The findings and recommendations for possible changes to the transport regulations resulting from the April 2013 second Technical Meeting (TM-44897) to follow up on the outcome of the October 2011 international transport conference can be found here.
The findings and recommendations on the topics of denial of shipment, communication and harmonization resulting from the April 2013 third Technical Meeting (TM-47137) to follow up on the outcome of the October 2011 international transport conference can be found here.

The recommendations on the four remaining topics: 1) the basis of the regulatory provisions, 2) regulatory implementation and industry compliance, 3) emergency response, and 4) regional considerations (including focus on regional networks) to be addressed in the March 2015 Technical Meeting (TM-40609) are identified in Annex I to the report of the March 2012 Technical Meeting (TM-43650), here, and have been summarized here.

C. Work to be done
The participants of this Technical Meeting (TM) are asked to:

1) Review the President's findings from the 2011 Transport Conference and the recommendations from the subsequent TMs 43650, 44897 and 47137 in the areas of the basis of the regulatory provisions, regulatory implementation, compliance, emergency response, and regional considerations. Refer to the President's Findings for the International Conference on the Safe and Secure Transport of Radioactive Materials October 2011, here, and the reports of the three follow up TMs found here, here, and here.

2) Review the recommendations related to all of the areas mentioned above. Assess whether those recommendations have been completed, are currently being implemented, or have not been implemented, keeping in mind that some recommendations may be out of date or no longer relevant.

3) Consider if any of the recommendations may be offered as a proposal for change as part of the ongoing review cycle for SSR-6 or a proposed change to any of the six associated transport Safety Guides.

4) Prepare a report on the outcomes of this meeting.

D. Expected Output
The expected output from the TM is the following:

1) A summary of the status of the reviewed recommendations for each of the four areas listed above.

2) Consolidated/revised recommendations based on the review of previous recommendations for each of the four areas.

3) A list of the consolidated/revised recommendations that may be offered as a proposal for change as part of the current review cycle for SSR-6 or a proposed change to any of the six associated transport Safety Guides, along with a recommended sponsor for the proposal.

4) A report which summarizes the work that has been done to date on the recommendations from the 2011 Transport Conference, reports on the accomplishments in relation to implementation of those recommendations, reports which recommendations remain to be implemented, and that looks forward to future trends in the area of transport safety.
Annex 7

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Terms of Reference for Working Groups
TM-49609
Third Technical Meeting on Integration into the
Transport Safety Standards of the Results of the
2011 International Conference on the Safe and
Secure Transport of Radioactive Material

IAEA Headquarters, Vienna
23 to 37 March 2015

FINAL TERMS OF REFERENCE
for Working Group #1 on Basis of the Provisions
Terms of Reference for Working Group #1

A. Background:
To mark the fiftieth anniversary of the issue of its first Regulations for the Safe Transport of Radioactive Materials in 1961, the International Atomic Energy Agency (IAEA) held the International Conference on the Safe and Secure Transport of Radioactive Material: The Next Fifty Years of Transport — Creating a Safe, Secure and Sustainable Framework (Transport Conference), in Vienna in October 2011.

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B. Work to be done
The participants of this Working Group (WG) are asked to:

1) Review the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Basis of the (Regulatory) Provisions.

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

4) Review the current draft of the “Technical Basis Document” and report updating current status and provide feedback on the content and format of the document as it currently stands. Provide recommendations on how the document might be made available to a wider audience (i.e., how might the document be more widely
C. Expected Output

A working group report will be drafted and will include details on the work completed in the areas of work highlighted in Section B above. This report should be written in accordance with a template (to be provided) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and as needed, notes and/or revised recommendations, on the table provided, is also expected.
TM-49609
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

IAEA Headquarters, Vienna
23 to 37 March 2015

FINAL TERMS OF REFERENCE for Working Group #2 on Regulatory Implementation and Industry Compliance
Terms of Reference for Working Group #2

A. Background:
To mark the fiftieth anniversary of the issue of its first Regulations for the Safe Transport of Radioactive Materials in 1961, the International Atomic Energy Agency (IAEA) held the International Conference on the Safe and Secure Transport of Radioactive Material: The Next Fifty Years of Transport — Creating a Safe, Secure and Sustainable Framework (Transport Conference), in Vienna in October 2011.

The President's findings from the Transport Conference were considered in a March 2012 Technical Meeting (TM-43650) which produced a report of recommended activities to address the President's findings. The outline of work prepared for the Technical Meeting (TM) summarized the President's findings under eight topical areas including: harmonization, denials of shipment, basis of provisions, Safety Requirements and security recommendations, national implementation and industry compliance, emergency response, communications, and regional considerations. A ninth topic in the Transport Conference President's findings on liability was not addressed by the Technical Meeting because that topic had been assigned to the International Expert Group on Nuclear Liability (INLEX) for consideration.

In April 2013, TM-44897 was held to follow up on Transport Conference recommendations involving possible changes to the transport regulations. This TM provided input to the 2013 IAEA biennial review cycle for considering changes to the Regulations for the Safe Transport of Radioactive Material (SSR-6). A third meeting (TM-47137) held in April 2014, focused on the implications of the President’s findings from the 2011 conference and the recommendations from the March 2012 TM and April 2013 TM for the specific areas of denial of shipment, communication, and harmonization.

B. Work to be done
The participants of this Working Group (WG) are asked to:

1) Review the President's Findings and Recommendations from the 2012 follow-up TM in the area of Regulatory Implementation and Industry Compliance.

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

Further, in considering the mechanisms used by the IAEA to help Member States adopt regulations, assess their adoption of regulations, provide training on regulations, and effectively implement the regulations, complete the following:

For reasons of economy, this document will not be available at the meeting. Participants are kindly asked to bring their copies to meetings and not to request additional copies.
4) Review and report on the usefulness of a) TS-G-1.5 (on Compliance Assurance) for the Regulator and b) TS-G-1.4 (on Management Systems) for the industry.

5) Review and discuss the period of validity of certificates (for packages), as well as how different countries handle amendments to certificates and renewals of certificates. Report on best practices and provide recommendations for implementation.

6) Review the European Association of Competent Authorities (EACA) guidance on inspections, and provide general recommendations on inspection (verification) activities related to transport of radioactive material.

7) Prepare a brief questionnaire for Member States on difficulties/experiences with implementation of the regulatory requirements.

C. Expected Output

A working group report will be drafted and will include details on the work completed in the areas of work highlighted in Section B above. This report should be written in accordance with a template (to be provided) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the table provided, is also expected.
TM-49609
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

IAEA Headquarters, Vienna
23 to 37 March 2015

FINAL TERMS OF REFERENCE
for Working Group #3 on Emergency Response
Terms of Reference for Working Group #3

A. Background:
To mark the fiftieth anniversary of the issue of its first Regulations for the Safe Transport of Radioactive Materials in 1961, the International Atomic Energy Agency (IAEA) held the International Conference on the Safe and Secure Transport of Radioactive Material: The Next Fifty Years of Transport — Creating a Safe, Secure and Sustainable Framework (Transport Conference), in Vienna in October 2011.

The President's findings from the Transport Conference were considered in a March 2012 Technical Meeting (TM-43650) which produced a report of recommended activities to address the President's findings. The outline of work prepared for the Technical Meeting (TM) summarized the President's findings under eight topical areas including: harmonization, denials of shipment, basis of provisions, Safety Requirements and security recommendations, national implementation and industry compliance, emergency response, communications, and regional considerations. A ninth topic in the Transport Conference President's findings on liability was not addressed by the Technical Meeting because that topic had been assigned to the International Expert Group on Nuclear Liability (INLEX) for consideration.

In April 2013, TM-44897 was held to follow up on Transport Conference recommendations involving possible changes to the transport regulations. This TM provided input to the 2013 IAEA biennial review cycle for considering changes to the Regulations for the Safe Transport of Radioactive Material (SSR-6). A third meeting (TM-47137) held in April 2014, focused on the implications of the President’s findings from the 2011 conference and the recommendations from the March 2012 TM and April 2013 TM for the specific areas of denial of shipment, communication, and harmonization.

B. Work to be done
The participants of this Working Group (WG) are asked to:

1) Review the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Emergency Response.

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

During Transport. Based on your review of these documents, provide the following:

a. Provide general feedback/recommendations related to the updating of TS-G-1.2, and any needed revisions to the DPP (including the schedule).

b. An update of the TS-G-1.2 document (as time allows) beginning with updating references in the document. Word version of this document here.

c. Recommendations on the interface between the TS-G-1.2 and the draft EPR guidance (i.e., where should one document “end” and where should the other one “begin”?)

C. Expected Output

A working group report will be drafted and will include details on the work completed in the areas of work highlighted in Section B above. A portion of the report addressing the recommendations from the 2011 transport conference should be written in accordance with a template (to be provided) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the table provided, is also expected.
TM-49609
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

IAEA Headquarters, Vienna
23 to 37 March 2015

FINAL TERMS OF REFERENCE for Working Group #4 on Regional Considerations

For reasons of economy, this document will not be available at the meeting. Participants are kindly asked to bring their copies to meetings and not to request additional copies.
Terms of Reference for Working Group #4

A. Background:
To mark the fiftieth anniversary of the issue of its first Regulations for the Safe Transport of Radioactive Materials in 1961, the International Atomic Energy Agency (IAEA) held the International Conference on the Safe and Secure Transport of Radioactive Material: The Next Fifty Years of Transport — Creating a Safe, Secure and Sustainable Framework (Transport Conference), in Vienna in October 2011.

The President's findings from the Transport Conference were considered in a March 2012 Technical Meeting (TM-43650) which produced a report of recommended activities to address the President's findings. The outline of work prepared for the Technical Meeting (TM) summarized the President's findings under eight topical areas including: harmonization, denials of shipment, basis of provisions, Safety Requirements and security recommendations, national implementation and industry compliance, emergency response, communications, and regional considerations. A ninth topic in the Transport Conference President's findings on liability was not addressed by the Technical Meeting because that topic had been assigned to the International Expert Group on Nuclear Liability (INLEX) for consideration.

In April 2013, TM-44897 was held to follow up on Transport Conference recommendations involving possible changes to the transport regulations. This TM provided input to the 2013 IAEA biennial review cycle for considering changes to the Regulations for the Safe Transport of Radioactive Material (SSR-6). A third meeting (TM-47137) held in April 2014, focused on the implications of the President’s findings from the 2011 conference and the recommendations from the March 2012 TM and April 2013 TM for the specific areas of denial of shipment, communication, and harmonization.

B. Work to be done
The participants of this Working Group (WG) are asked to:

1) Review the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Regional Considerations.

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

4) After presentation of the IAEA region-based approach for transport safety and development of regional networks, provide feedback and recommendations on the regional approach and the planned Agency implementation.
5) Upon reviewing the Agency “Core Model” for regulatory oversight of the transport of radioactive material, provide feedback and recommendations on the further development and dissemination of the “Core Model” to regional transport networks.

C. Expected Output

A working group report will be drafted and will include details on the work completed in the areas of work highlighted in Section B above. This report should be written in accordance with a template (to be provided) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the table provided, is also expected.
Annex 8

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Working Group Reports
Annex 8.1 Working Group 1 Report
Third Technical Meeting on Integration into
The Transport Safety Standards of the Results of the
2011 International Conference on the Safe and
Secure Transport of Radioactive Material

TM-49609

Room C0213
IAEA Headquarters, Vienna
23 to 27 March 2015

REPORT OF WORKING GROUP No. 1 –
Basis of the Provisions
1. WORKING GROUP MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paul Hinrichsen</td>
<td>South Africa</td>
<td>National Nuclear Regulator</td>
</tr>
<tr>
<td>(Working Group Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingo Reiche</td>
<td>Germany</td>
<td>Federal Office for Radiation Protection</td>
</tr>
<tr>
<td>(Working Group Secretary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nikolai Todorov</td>
<td>Bulgaria</td>
<td>Nuclear Regulatory Agency</td>
</tr>
<tr>
<td>Katherine Rooney</td>
<td>ICAO</td>
<td>ICAO</td>
</tr>
<tr>
<td>Betty Bonnardel-Azzarelli</td>
<td>WNTI</td>
<td>WNTI</td>
</tr>
</tbody>
</table>

The Working Group convened Tuesday morning, 24 March 2015, and deliberated according to the Terms of Reference Provided.

2. TERMS OF REFERENCE

The terms of reference for this WG were as follows;

A. Background:

To mark the fiftieth anniversary of the issue of its first Regulations for the Safe Transport of Radioactive Materials in 1961, the International Atomic Energy Agency (IAEA) held the International Conference on the Safe and Secure Transport of Radioactive Material: The Next Fifty Years of Transport — Creating a Safe, Secure and Sustainable Framework (Transport Conference), in Vienna in October 2011.

The President's findings from the Transport Conference were considered in a March 2012 Technical Meeting (TM-43650) which produced a report of recommended activities to address the President's findings. The outline of work prepared for the Technical Meeting (TM) summarized the President's findings under eight topical areas including: harmonization, denials of shipment, basis of provisions, Safety Requirements and security recommendations, national implementation and industry compliance, emergency response, communications, and regional considerations. A ninth topic in the Transport Conference President's findings on liability was not addressed by the Technical Meeting because that topic had been assigned to the International Expert Group on Nuclear Liability (INLEX) for consideration.

In April 2013, TM-44897 was held to follow up on Transport Conference recommendations involving possible changes to the transport regulations. This TM provided input to the 2013 IAEA biennial review cycle for considering changes to the Regulations for the Safe Transport of Radioactive Material (SSR-6). A third meeting (TM-47137) held in April 2014, focused on the implications of the President’s findings from the 2011 conference and the recommendations from the March 2012 TM and April 2013 TM for the specific areas of denial of shipment, communication, and harmonization.
B. Work to be done

The participants of this Working Group (WG) were asked to:

1) Review the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Basis of the (Regulatory) Provisions.

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, and any additional recommendations developed by the WG, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

4) Review the current draft of the “Technical Basis Document” and report updating current status and provide feedback on the content and format of the document as it currently stands. Provide recommendations on how the document might be made available to a wider audience (i.e., how might the document be more widely disseminated?)

3. EXPECTED OUTPUT

A working group report will be drafted and will include details on the work completed in the terms of reference highlighted in Section 2 above. This report should be written in accordance with a template (this report) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the table provided, is also expected.

4. APPROACH TAKEN BY THE WORKING GROUP

In order to address the terms of reference, the Working Group first considered it necessary to clearly define the purpose of the following documents:

- The Regulations – SSR-6
- The Advisory Material – SSG-26
- The Technical Basis Document (TBD)

Understanding these defined purposes would help define how these documents should be reviewed/revised as a set.

The WG then gave consideration to the mechanics and timing of the review/revision of these documents.

5. DOCUMENTS REVIEWED BY THE WORKING GROUP
The following documents were reviewed by the working group:

1) Technical Basis for the IAEA Regulations for the Safe Transport of Radioactive Material (SSR-6) – 15 September 2014.
2) SSR-6 Regulations for the Safe Transport of Radioactive Material, 2012 Edition
   • The Working Group did not interpret the task at hand as requiring a detailed technical review of the content of the Technical Basis Document (TBD) other than what might be required in order to make the document more user-friendly.
   • The WG felt that these items have been addressed in Addenda 1 & 2 as attached.
   • The WG was of the opinion that there were no issues related to the Basis of the Provisions.
   • The WG was of the opinion that there were no issues related to the Basis of the Provisions.
   • The WG was of the opinion that there were no issues related to the Basis of the Provisions.

6.0 SUMMARY OF DISCUSSIONS

6.1 Review the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Basis of the (Regulatory) Provisions.

See Addenda 1 & 2.

6.2 Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

See Addenda 1 & 2.

6.3 Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, and any additional recommendations developed by the WG, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to
each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

See Addenda 1 & 2.

6.4 User Friendliness

Review the current draft of the “Technical Basis Document” and report updating current status and provide feedback on the content and format of the document as it currently stands. Provide recommendations on how the document might be made available to a wider audience (i.e., how might the document be more widely disseminated?)

6.4.1 Status of the Technical Basis Document (TBD)

The WG feels that the TBD is a very useful document for the transport community and the authors of the document should be lauded on their work.

The TBD in its current state is seen as to cover all necessary areas. It is structured first by those areas of the regulations covering general information (history, general considerations). Following these general considerations it goes to the basis for single topics (tests, requirements).

The TBD has been developed especially for collecting all the historical information so as not to lose this important background information. At the same time it has led to a large database containing all these historical documents for reference.

But the TBD has not yet been synchronized with the other documents presenting the regulations for the transport of radioactive material, and the mechanism for updating the TBD has not yet been defined.

6.4.2 Roles of the Documents

The Working Groups discussions commenced with an expression of the need to clarify the roles and contents of the following related documents:

<table>
<thead>
<tr>
<th>Document</th>
<th>Purpose</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSR-6</td>
<td>Regulations</td>
<td>Regulations</td>
</tr>
<tr>
<td>SSG-26</td>
<td>Advisory Material</td>
<td>Advisory Material explaining how to apply the Regulations, including that basic information on the technical basis that is necessary for correct application</td>
</tr>
<tr>
<td>TBD</td>
<td>Technical Basis Document</td>
<td>The document where all the technical background is collected. It should explain why the regulations are as they are, describing the whole history leading to the current regulations, the basis for all current requirements and also pointing to related research results.</td>
</tr>
</tbody>
</table>
The TBD would be useful

- For drafting and supporting a proposal to change the regulations,
- For explaining the safety provided by the regulations.

**Principle:**

- The paragraphs of SSR-6 say **what** to do,
- the corresponding numbers of SSG-26 describe **how** to do it
- and the TBD explains **why** to do it.

It was felt that this Principle would provide a basis for identifying which text belongs in which document. As a next step the contents of the three documents would need to be compared as described below. This would assist in making SSG-26 and the TBD more efficient and facilitate the review/revision cycle for these documents.

**The WG believes that this Principle should be put to TRANSSC for their consideration.**

**6.4.3 Improving User Friendliness of the TBD and initial synchronization between SSR-6, SSG-26 and the TBD**

With regards to recommendations on improving the user friendliness of the document, the WG proposed, as a tool, the development of the following Look-Up Table which would assist in the process of connecting the relevant paragraphs in the three documents SSR-6, SSG-26 and the TBD:

<table>
<thead>
<tr>
<th>SSR-6 para.</th>
<th>SSG-26</th>
<th>TBD chapter</th>
<th>Short Description</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>632</td>
<td>632.1 to 632.7</td>
<td>10.7</td>
<td>Uranium hexafluoride package tests</td>
<td>UF6, ISO7195, Structural Tests</td>
</tr>
</tbody>
</table>

This Look-Up Table would permit users when looking at any given paragraphs of SSR-6, to focus in on the relevant paragraphs of SSG-26 as well as the related text in the TBD.

The printed version would have a short description in column 4 which would guide the reader to the correct line in the Table.

The electronic version of the Table would contain a Search facility on “Keywords” the result of which would populate the other columns with the appropriate document references.
For the production of at least the printed version of the Look-Up Table, Working Group 1 proposes to call for a CSM.

It should be kept in mind that there is not 100% correspondence between SSR-6 paragraphs and the TBD. The TBD contains some extra information not directly related to single paragraphs of SSR-6. On the other hand, due to the way it has been created the TBD may currently contain gaps where the technical basis for some SSR-6 paragraphs is missing. Therefore the table would at the same time help to identify gaps and overlaps in the TBD and SSG-26 so that these could be addressed in future work.

At the end of this phase

- The TBD would be more user-friendly,
- It would be identified for which paragraph of the SSR-6 there is no relevant technical basis identified in the TBD, which explanatory text containing technical basis information from SSG-26 could be moved or copied to the TBD thus providing the missing technical basis and for which requirement of the SSR-6 there would be a need to initiate new investigations for completing the technical basis.
- The SSG-26 would be more user-friendly by providing only the essential explanatory text required for SSR-6. An additional benefit would be a more efficient updating of SSG-26.
- The basis for an effective update process (see below) would be provided.

### 6.4.4 Review/Update Mechanism

The WG felt there was a need to recommend a mechanism and/or timetable for the update of the TBD in relation to both the Regulations and to the Advisory Material.

The WG did not wish to burden TRANSSC with the need to review/revise in the TBD in parallel with the following documents;

- SSR-6
- SSG-26
- SSG-33

It was the clear consensus of the group to update SSG-26 together with SSR-6 during each revision cycle, but to postpone the update of the TBD to a time after the revision cycle. The TBD document by its nature contains paragraphs or sections addressing whole areas of the regulations. An update of the TBD would require the addition of text summarizing the reasons for the revisions and therefore should be done after completion of the revision cycle.

At the end of a given Review/Revision cycle, TRANSSC should have a standing Agenda item to consider the need to make additions to the TBD and decide on the forum for such an update (e.g. working group at next TRANSSC, TM, CM).
If a revision to SSR-6 is recommended then TRANSSC should decide on the information to be added to the TBD.

If no revision to SSR-6 is recommended, TRANSSC may still decide that new information needs to be added to the TBD if this new information was used as the basis for not revising SSR-6. For example a study or research project which concludes that there is no need to strengthen a particular aspect of SSR-6.

The schedules (SSG-33) should be updated after a revision cycle of the SSR-6 as well.

7 FINDINGS, RECOMMENDATIONS AND IMPLEMENTATION

7.1 Recommendation 1

Principle underlying the roles of the primary transport documents:

- The paragraphs of SSR-6 say what to do,
- The corresponding numbers of SSG-26 describe how to do it
- And the TBD explains why to do it.

The WG recommends that this Principle should be put to TRANSSC for their consideration.

Priority – Moderate

7.2 Recommendation 2

Improving User-Friendliness of the TBD and initial synchronization between SSR-6, SSG-26 and the TBD

The WG recommends the development of a Look-Up Table. For the production of the printed version of the Table, Working Group 1 proposes that a CSM should be convened to create the Table.

Priority – High

7.3 Recommendation 3

Review/Update mechanism for the TBD

The WG recommends that at the end of a given Review/Revision cycle, TRANSSC should have a standing Agenda item to consider the need to make additions to the TBD and decide on the forum for such an update (e.g. working group at next TRANSSC, TM, CM).

Priority – High

8 CONCLUSION
The WG sees the TBD as an extremely useful and important document. We commend the establishment of the document as the central source for technical basis information and see the very real need for a mechanism to regularly update the TBD. We also see the usefulness of the TBD as a training and information tool and in this regard there is a very real need to make the TBD user-friendly and available to as wide an audience as possible. The WG believes the Presidents Finding requiring the development of a technical basis document has been addressed.
## ADDENDUM 1: 2012 Technical Meeting Recommendations Table

<table>
<thead>
<tr>
<th>Topic Area</th>
<th>Recommendations</th>
<th>Status</th>
<th>Priority</th>
<th>Notes and/or Revised Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Basis of the Provisions</strong></td>
<td>1) Continue with transport safety work plan</td>
<td>Ongoing w/TRANSSC</td>
<td></td>
<td>See Addendum 2 for specific recommendations</td>
</tr>
<tr>
<td></td>
<td>• The capability to implement the activities depends on the support of MS</td>
<td></td>
<td></td>
<td>The roles of the documents should be clarified: SSR-6 is the regulations. SSG-26 should be the advisory</td>
</tr>
<tr>
<td></td>
<td>• Future considerations include new technologies such as new generation power</td>
<td></td>
<td></td>
<td>material explaining how to apply the regulations. The technical basis document (TBD) should explain</td>
</tr>
<tr>
<td></td>
<td>reactors and Transportable Nuclear Power Plants (TNPP)</td>
<td></td>
<td></td>
<td>why the regulations are as they are, describing the whole history leading to the current regulations</td>
</tr>
<tr>
<td></td>
<td>• Importance of simultaneous update to safety requirements and guides (TS-G-1.1</td>
<td></td>
<td></td>
<td>and also pointing to recent research results.</td>
</tr>
<tr>
<td></td>
<td>and TS-G-1.6) should be noted</td>
<td></td>
<td></td>
<td>The mechanism for updating the TBD should be clearly defined. There are two sources of new information.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>At first, during every revision of the regulations the TBD should be updated. The information is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>contained in the change proposals. Second, new results research should be referenced in the TBD.</td>
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<td></td>
<td>This means, that</td>
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<td></td>
<td>• After every review cycle a decision should be made in TRANSSC if there is new information to be</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>included in the TBD.</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>• After every revision of the regulations in any case the TBD needs updating. This update should</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>be initiated by TRANSSC after the</td>
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</tbody>
</table>
### Revision Cycle

It was the clear consensus of the group to update SSG-26 together with SSR-6 inside each revision cycle, but to postpone the update the TBD to the time after the revision cycle. The TBD document is not and shall not be organized by single regulation paragraphs but covers whole areas. An update of the TBD requires summarizing revisions by experts and therefore should be done after finishing the revision cycle.

The updating of SSG-26 and the TBD will be facilitated by moving the technical basis information currently contained in SSG-26 to the TBD (see paragraph 9 below).

The schedules should be updated after a revision cycle of the SSR-6 as well.

<table>
<thead>
<tr>
<th>2) Continue with ISC action plan via proposed new UN inter-agency committee</th>
<th>Ongoing w/IAG</th>
<th>The TBD is seen as a valuable document for understanding the safety basis of the regulations for transport of radioactive material. Therefore the TBD should be actively promoted to all relevant organizations and stakeholders like the IAG and the regional networks of all the international organizations.</th>
</tr>
</thead>
</table>
| 3) Enhance regional networks and use them to assist states developing and implementing requirements in transport safety and security – in particular considering international | Ongoing w/TSU | The TBD is seen as a valuable document for understanding the safety basis of the regulations for transport of radioactive material. Therefore the TBD should be
<table>
<thead>
<tr>
<th>Harmonisation</th>
<th>Actively promoted to all relevant organizations and stakeholders like the IAG and the regional networks.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4) Consider providing guides to developing and implementing harmonized regulations in safety and security focusing on small countries with limited programmes</td>
<td>Not in scope of TM</td>
</tr>
<tr>
<td>5) Revisit threshold values for security, in particular for transport, and consider consistency of the interface between facility and transport security</td>
<td>Not in scope of TM</td>
</tr>
<tr>
<td>6) Develop a separate security guidance document for TNPP</td>
<td>Not in scope of TM</td>
</tr>
<tr>
<td>7) Consider risk analysis to provide comparative risks to guide priorities, not to assess overall safety</td>
<td>The concept of risk has implicitly always been considered for developing regulations, and is somehow reflected in the TBD. If risk analysis is used as a new argument leading to changes to SSR-6 requirements it would be reflected in the TBD by the mechanism described above.</td>
</tr>
<tr>
<td>8) Examine and promote development of dispersion modelling for emergency preparedness and response, including safety and security considerations</td>
<td>Emergency preparedness considerations if leading to changes to SSR-6 requirements would be reflected in the TBD in the same way other changes to regulations would be, see above. Lead on this question should be by the working group 3.</td>
</tr>
<tr>
<td>9) Complete review and documentation of technical basis for safety regulations</td>
<td>Ongoing w/TSU Technical</td>
</tr>
<tr>
<td></td>
<td>It is proposed to make the TBD more user friendly by creating a reference table (columns: para. in SSR-6, number in SSG-</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td></td>
<td>• Ensure training is provided – especially to states not currently involved in development of IAEA requirements</td>
</tr>
<tr>
<td></td>
<td>• Ensure the process remains dynamic</td>
</tr>
<tr>
<td></td>
<td>• Make the documentation as widely available as possible</td>
</tr>
<tr>
<td>10)</td>
<td>Ensure technical basis for security recommendations are also recorded</td>
</tr>
<tr>
<td>11)</td>
<td>Review interface between transport safety and security</td>
</tr>
<tr>
<td></td>
<td>• Identify conflicts e.g. hazard communication, information etc.</td>
</tr>
<tr>
<td></td>
<td>• Consider cross cutting issues related to package design (e.g. influence of new security features on safety and vice versa)</td>
</tr>
<tr>
<td></td>
<td>• Involve NSGC and TRANSSC</td>
</tr>
</tbody>
</table>
## ADDENDUM 2: 2012 Recommendations Table -

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Status</th>
<th>Priority</th>
<th>Notes and/or Revised Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct biennial review of SSR-6 to assure continued adequacy of regulations,</td>
<td>Ongoing</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>and to incorporate experiences and advances in technology.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review adequacy of regulations/guidance for authorising transport of large</td>
<td>Not yet implemented</td>
<td>L</td>
<td>Check with Canada</td>
</tr>
<tr>
<td>components and special arrangements.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compile record/library of technical basis for SSR-6 requirements.</td>
<td>Work has been done.</td>
<td>H</td>
<td>Recommendations of the WG for use of the TBD see Meeting Report</td>
</tr>
<tr>
<td>Review adequacy of regulations/guidance for LSA.</td>
<td>Ongoing</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Increase sharing/learning from transport operational experience and</td>
<td>Ongoing</td>
<td>M</td>
<td>Standing Agenda item for Transsc</td>
</tr>
<tr>
<td>international events impacting transport.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review requirements for low dispersible materials, Type C and other</td>
<td>Not yet implemented</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>and other requirements to determine if requirements are overly restricting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>transport.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review adequacy of regulations/guidance for next generation reactors, new</td>
<td>Not yet implemented</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>fuel designs, new material types, and small transportable power reactors.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Annex 8.2  Working Group 2 Report
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

TM-49609

Room C0213
IAEA Headquarters, Vienna
23 to 27 March 2015

REPORT OF WORKING GROUP No. 2 – Regulatory Implementation and Industry Compliance
Final Report of Working Group No. 2 – Regulatory Implementation and Industry Compliance

The working group (WG) convened Tuesday morning, 24 March 2015, and deliberated according to the terms of reference provided.

1. WORKING GROUP MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeff Ramsay</td>
<td>Canada</td>
<td>Canadian Nuclear Safety Commission (CNSC)</td>
</tr>
<tr>
<td>Tsutomu Baba</td>
<td>Japan</td>
<td>Nuclear Regulation Authority (NRA)</td>
</tr>
<tr>
<td>Vladimir Ershov</td>
<td>Russia</td>
<td>Emergency Response Centre of the State Corporation ROSATOM</td>
</tr>
<tr>
<td>Maria Dedova</td>
<td>Russia</td>
<td>State Corporation ROSATOM</td>
</tr>
<tr>
<td>Zuzana Pistekova</td>
<td>Slovakia</td>
<td>Nuclear Regulatory Authority</td>
</tr>
<tr>
<td>Alena Bujnova</td>
<td>Slovakia</td>
<td>Ministry of Transport, Construction and Regional Development</td>
</tr>
<tr>
<td>Woo Young Choi</td>
<td>Republic of Korea</td>
<td>Korea Hydro &amp; Nuclear Power Co., Ltd.</td>
</tr>
<tr>
<td>Thierry Miquel</td>
<td>France</td>
<td>EDF-UTO</td>
</tr>
<tr>
<td>Muhammad Muneer</td>
<td>Pakistan</td>
<td>Pakistan Nuclear Regulatory Authority (PNRA)</td>
</tr>
<tr>
<td>Anis Mustafa</td>
<td>Pakistan</td>
<td>Directorate General of Safety</td>
</tr>
<tr>
<td>Dante Lantin</td>
<td>Philippines</td>
<td>Department of Transportation and Communications</td>
</tr>
<tr>
<td>Zsofia Szepes</td>
<td>Hungary</td>
<td>Hungarian Atomic Energy Authority (HAEA)</td>
</tr>
<tr>
<td>Marius Georgescu</td>
<td>Romania</td>
<td>National Commission for Nuclear Activities Control (CNCAN)</td>
</tr>
<tr>
<td>Mohamed Badr</td>
<td>Egypt</td>
<td>Egyptian Nuclear and Radiological Regulatory Authority</td>
</tr>
<tr>
<td>Friedrich Kirchnawy</td>
<td>Austria</td>
<td>Federal Ministry for Transport, Innovation and Technology</td>
</tr>
<tr>
<td>Noviyanti Noor</td>
<td>Indonesia</td>
<td>Nuclear Energy Regulatory Agency (BAPETEN)</td>
</tr>
<tr>
<td>Chris Bajwa</td>
<td>IAEA</td>
<td></td>
</tr>
<tr>
<td>Bill Brach</td>
<td>IAEA</td>
<td></td>
</tr>
</tbody>
</table>
2. TERMS OF REFERENCE

The terms of reference for this WG were as follows;

1) Review the President’s Findings and Recommendations from the 2012 follow-up technical meeting (TM) in the area of National Implementation and Industry Compliance (see Addendum 1).

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, and any additional recommendations developed by the WG, keeping in mind the current resources and tools available to the Agency and Member States (MS) for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

Further, in considering the mechanisms used by the IAEA to help MS adopt regulations, assess their adoption of regulations, provide training on regulations, and effectively implement the regulations, complete the following:

4) Review and report on the usefulness of a) TS-G-1.5 (on Compliance Assurance) for the Regulator and b) TS-G-1.4 (on Management Systems) for the industry.

5) Review and discuss the period of validity of certificates (for packages), as well as how different countries handle amendments to certificates and renewals of certificates. Report on best practices and provide recommendations for implementation.

6) Review the European Association of Competent Authorities (EACA) guidance on inspections, and provide general recommendations on inspection (verification) activities related to transport of radioactive material.

7) Prepare a brief questionnaire for MS on difficulties/experiences with implementation of the regulatory requirements.

3. EXPECTED OUTPUT

A working group report will be drafted and will include details on the work completed in the terms of reference highlighted in Section 2 above. This report should be written in accordance with a template (this report) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the table provided, is also expected.
In addition, as per the general terms of reference provided for this TM, the WG should provide the following:

1. A summary of the status of the reviewed recommendations for each of the terms of reference in Section 2 above.
2. Consolidated/revised recommendations based on the review of previous recommendations.
3. A list of the consolidated/revised recommendations that may be offered as a proposal for change as part of the current review cycle for SSR-6 or a proposed change to any of the six associated transport Safety Guides, along with a recommended sponsor for the proposal.
4. A report which summarizes the work that has been done to date on the recommendations from the 2011 Transport Conference, reports on the accomplishments in relation to implementation of those recommendations, reports which recommendations remain to be implemented, and that looks forward to future trends in the area of transport safety.

4. APPROACH TAKEN BY THE WORKING GROUP

In order to address the terms of reference, the working group took the following approach:

- Reviewed and discussed applicable issues from relevant documents
- Identified items requiring further elaboration by the secretariat
- Received elaboration from Mr. Bajwa and Mr. Brach
- Discussed and agreed on items that addressed the elements of the terms of reference

5. DOCUMENTS REVIEWED BY THE WORKING GROUP

The following documents were reviewed by the working group:

6. SUMMARY OF DISCUSSIONS

6.1 Review of the President’s Findings and Recommendations from the 2012 follow-up TM in the area of National Implementation and Industry Compliance (Terms of Reference 1, 2 and 3)

The findings and recommendations from the 2012 follow-up TM were reviewed and commented on as noted in Addendum 1. Several recommendations came out of the discussions as noted in section 7.1.

6.2 Review and report on the usefulness of a) TS-G-1.5 (on Compliance Assurance) for the Regulator and b) TS-G-1.4 (on Management Systems) for the industry (Terms of Reference 4)

**TS-G-1.4, The Management System for the Safe Transport of Radioactive Material**

This document was not used by most of the WG participants. It was agreed, however, that the document does provide useful information specific to Class 7 materials, although the majority of the requirements are similar, if not identical to ISO standard requirements for management systems.

In many countries, many companies follow ISO standards, so would not benefit from this document. Companies that do not follow ISO standards, however, could benefit from this document, as it provides good general guidance and excellent examples for developing an adequate quality management system.

The references in the document do not refer to the most recent versions of some documents. It should also be noted that older versions of the IAEA Regulations refer to Quality Assurance programs, rather than Management Systems, which could be confusing.

**TS-G-1.5, Compliance Assurance for the Safe Transport of Radioactive Material**

MS who already have comprehensive compliance programs may not require this document. For MS who are in the process of developing and establishing their compliance programs, however, this document provides valuable guidance. Several MS participating in the WG are currently using this document to develop or more firmly establish their programs.

Similar to TS-G-1.4, the references in the document do not refer to the most recent versions of some documents.

After review of these two documents, the WG had two recommendations as listed in section 7.2.

6.3 Review and discuss the period of validity of certificates (for packages), as well as how different countries handle amendments to certificates and renewals of certificates. Report on best practices and provide recommendations for implementation (Terms of Reference 5)
All WG participants agreed that adding some guidance in this area to the Advisory Material (SSG-26) would be helpful. The following points were noted by the WG:

- MS typically issue certificates anywhere up to 5 years.
- Some MS do not change the expiry date of the certificate for an amendment, while others may sometimes extend the expiry date depending on the safety significance of the change. Generally small changes on the certificate would not affect the expiry date, but a significant redesign would.
- In Russia, certificates for new package designs are issued with a shorter expiry date (1 year for air and 3 years for other modes of transport) than for a renewal (3 years for air and 5 years for other modes of transport).
- In France, certificates were initially issued for 3 years, but due to a number of factors, primarily the workload imposed on the regulator, this was extended to 5 years.
- In Hungary, certificates are issued every 3 years to ensure consistency of requirements with ADR/ADN which have a 2 year review cycle.
- The period of validity should and often does depend on the complexity of the design. Packages such as the Dual Purpose Cask (DPC) require special consideration, which is currently being reviewed by an IAEA WG.
- Endorsements are generally issued with the same expiry date as on the certificate of the country of origin.
- The period of validity for certificates may be driven by other factors, such as the resources available to the regulator, including the availability of contractors, commitments with industry, and the design life of the package.

As a result of these discussions, the WG had one recommendation as listed in section 7.3.

6.4 Review the European Association of Competent Authorities (EACA) guidance on inspections, and provide general recommendations on inspection (verification) activities related to transport of radioactive material (Terms of Reference 6)

The EACA document is focused mainly on inspections, but also provides some good guidance on enforcement. The European MS in the WG are using this document to prepare inspection checklists that will be consistent across the European Union. Such consistent requirements makes it easier for consignors, carriers, and others handling radioactive material to conform to requirements.

This document includes more detailed inspection checklists than the IAEA TS-G-1.4 and TS-G-1.5 management system and compliance documents. Based on this, the WG had one recommendation as listed in section 7.4.

6.5 Prepare a brief questionnaire for Member States on difficulties/experiences with implementation of the regulatory requirements (Terms of Reference 7)

A draft questionnaire was prepared by the WG for further development, as presented in Addendum 2. This task was considered the same as task 7 listed in Addendum 1 from the 2012 follow-up recommendations. The task from the 2012 follow-up recommendations
specified only to draft a questionnaire for industry, but the scope was expanded to include regulators in order to cover this task.

7. FINDINGS, RECOMMENDATIONS AND IMPLEMENTATION

7.1 Review of the President’s Findings and Recommendations from the 2012 follow-up TM in the area of National Implementation and Industry Compliance (Terms of Reference 1, 2 and 3)

Recommendations from Item 1 a) of the Table in Addendum 1; Development of new safety guide to provide framework for common/consistent MS review of transport applications. The guide should be short and aimed at achieving broader international consistency

1) Recommendation - Industry and NGOs should be involved in the development of the new safety guide to provide framework for common/consistent MS review of transport applications.

   Priority – Moderate

2) Recommendation - The IAEA should consider review guides and application guides already made publicly available by many MS in the development of the new safety guide.

   Priority – Moderate

3) Recommendation - The size of the safety guide should be a secondary consideration after completeness and clarity.

   Priority – Low

Recommendations from Item 1 b) of the Table in Addendum 1; Increase sharing/learning from transport operational experience and international events impacting transport. Learning from experience should be incorporated in training, consider TC (technical cooperation) funding (or Nuclear Security funding for security equivalent)

4) Recommendation - The IAEA could recommend how often training programs are to be revised to ensure operational experience is captured in a timely way.

   Priority – Low

5) Recommendation – The IAEA should promote the practice of maintaining databases to track and resolve events to facilitate sharing of operational experience, including classification and the sharing of unusual events and near misses.

   Priority – Low
Recommendations from Item 1 d) of the Table in Addendum 1; Encourage MS to offer opportunity to other MS to observe transport inspections and other transport activities such as package design reviews

6) **Recommendation** - The IAEA could use TRANSSC and TranSAS, as well as the regional networks, as forums to develop relationships between MS to facilitate MS offering opportunities to other MS to observe transport inspections and other transport activities such as package design reviews.

**Priority** – Low

7) **Recommendation** - The IAEA should inform MS of the national competent authority (CA) list, the web sites of the CA, and keep them up to date.

**Priority** – Moderate

Recommendations from Item 1 e) of the Table in Addendum 1; Compile a list of variations in national regulations and review for implications for TRANSSC and TS-R-1 (now SSR-6)

8) **Recommendation** - The IAEA could start with a list of which MS apply which version of the IAEA regulations, as well as which other transport regulations they follow, prior to developing a full list of MS variations to the Regulations. A format similar to that currently used by ICAO for presenting and posting variations to their regulations, could be used by the IAEA for their listings as well.

**Priority** – Low

Recommendations from Item 6 of the Table in Addendum 1; Reduced TranSAS based on mutual support, not pass or fail

9) **Recommendation** – The IAEA should clarify (in their documentation and in their promotion of IRRS activities) that a transport review must be specially requested as part of an IRRS mission.

**Priority** – Moderate

10) **Recommendation** – The IAEA should consider periodic Independent reviews of transport regulatory programs, such as TranSAS, but ensure the review is scaled to the needs of the MS and that the review is performed through mutual support rather than through pass or fail criteria.

**Priority** – Moderate
7.2 Review and report on the usefulness of a) TS-G-1.5 (on Compliance Assurance) for the Regulator and b) TS-G-1.4 (on Management Systems) for the industry (Terms of Reference 4)

11) **Recommendation** – TS-G-1.4 and TS-G-1.5 could be revised to update referenced regulations and incorporate any changes in the requirements for management systems and compliance assurance.

**Priority – Low**

12) **Recommendation** - The Advisory Material (SSG-26) should be updated to explain that whereas the current version refers to Management Systems, which is consistent with TS-G-1.4, older versions of the IAEA Regulations refer to Quality Assurance programs.

**Priority – Moderate**

7.3 Review and discuss the period of validity of certificates (for packages), as well as how different countries handle amendments to certificates and renewals of certificates. Report on best practices and provide recommendations for implementation (Terms of Reference 5)

1) **Recommendation** – Advisory Material (SSG-26) should be added to recommend a period of validity for package certificates and to discuss the many variables that must be considered in issuing, amending and revalidating package certificates, as well as for other design type certificates.

**Priority – Moderate**

7.4 Review the European Association of Competent Authorities (EACA) guidance on inspections, and provide general recommendations on inspection (verification) activities related to transport of radioactive material (Terms of Reference 6)

13) **Recommendation** – If and when TS-G-1.4 and TS-G-1.5 are reviewed, the IAEA should consider including some of the information contained in the EACA guidance document on inspections.

**Priority – Low**

7.5 Prepare a brief questionnaire for Member States on difficulties/experiences with implementation of the regulatory requirements (Terms of Reference 7)

14) **Recommendation** – The IAEA should further develop the questionnaire drafted by the WG (Addendum 2).

**Priority – Moderate**
8. CONCLUSION

The WG reviewed, discussed and provided recommendations on all of the items identified in the terms of reference. A summary of the status and priority of the reviewed items, including the resulting recommendations, is provided in this report. The WG made 14 recommendations (8 Moderate and 6 Low).

Most of the actions from the 2011 Transport Conference and subsequent follow-up TMs are either complete, have been transferred to other organizations (TRANSSC, IAG), or were not in the scope of this TM.

There are two actions where work has not yet been started; compiling a list of variations in MS regulations and initiating a reduced TranSAS based on mutual support. For these actions, the WG has recommended a possible way to carry these items forward.

After the WG review, there were no changes proposed as part of the current review cycle for SSR-6 or a proposed change to any of the six associated transport Safety Guides. Recommendations were made by the WG for consideration when and if the Advisory Material (SSG-26), TS-G-1.4, or TS-G-1.5 may be revised in the future. A brief questionnaire for MS on difficulties/experiences with implementation of the regulatory requirements was also drafted by the WG for future development by the IAEA.
## ADDENDUM 1: 2012 Recommendations Table

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Status</th>
<th>Priority</th>
<th>Notes and/or Revised Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Continue transport safety work plan</td>
<td></td>
<td></td>
<td>The following 7 items (a to g) were recommendations from the transport safety work plan discussed by the WG.</td>
</tr>
<tr>
<td>a) Development of new safety guide to provide framework for common/consistent MS</td>
<td>Ongoing w/TRANSSC</td>
<td>M</td>
<td>- This guide would benefit MS in developing consistent and harmonized review procedures.</td>
</tr>
<tr>
<td>review of transport applications. The guide should be short and aimed at achieving</td>
<td></td>
<td></td>
<td>- Harmonization is needed across MS to ensure consistency in reviews for endorsements.</td>
</tr>
<tr>
<td>broader international consistency.</td>
<td></td>
<td></td>
<td>- Guide would also help applicants better understand what is required and how the application will be reviewed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Recommend industry and NGO should be involved in the development.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Many regulators already make their review or application guides publicly available. The IAEA should consider these guides in the development of the IAEA guide.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- The size of the guide should be a secondary consideration after completeness and clarity. If it is too short it could lack sufficient detail to be of use.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The WG made 3 recommendations from these discussions, as listed in section 7.1.</td>
</tr>
<tr>
<td>b) Increase sharing/learning from transport operational experience and international</td>
<td>Ongoing</td>
<td>M/L</td>
<td>- Operational experience (OPEX) is already shared fairly widely among many countries. Generally, this OPEX is considered when training programs are revised.</td>
</tr>
<tr>
<td>events impacting transport. Learning from experience should be incorporated in training</td>
<td>TC funding approved w/TRANSSC</td>
<td></td>
<td>- The revision cycle for training programs is variable (annually to 5 years or longer), so it could take some time for OPEX to be incorporated into some training programs. The IAEA could recommend how often training programs are to be revised to ensure OPEX is captured in a timely way.</td>
</tr>
<tr>
<td>Consider TC (technical cooperation) funding (or Nuclear Security funding for security equivalent)</td>
<td></td>
<td></td>
<td>- Important to incorporate OPEX from all organizations involved in transport into training (regulators, industry, customs, RPOs, etc.)</td>
</tr>
</tbody>
</table>
Sharing of international experiences is important since many similar low level incidents occurring in many countries could be an indication of a larger problem that would not be noticed otherwise.
- International experience is also important to countries where there are not many events or inspectors.
- Not all countries maintain databases to track and resolve events. The IAEA should promote this practice to facilitate sharing of OPEX.
  - Classification of events is important to ensure the most important OPEX is being shared and incorporated into training.
  - It is important to not only share OPEX of events, but also of unusual situations that are not necessarily non-conformances, as well as near misses.

The WG made 2 recommendations from these discussions, as listed in section 7.1.

| c) Support application of IAEA transport safety standards in MS | Ongoing w/TRANSSC | M | All MS support the application of the IAEA transport safety standards and approve of supporting other MS. |
| d) Encourage MS to offer opportunity to other MS to observe transport inspections and other transport activities such as package design reviews | Ongoing w/TRANSSC | M/L | - Many MS offer opportunities to other MS to observe safety and security activities.  
- The IAEA is in a position to facilitate the contact between countries directly and through the regional networks.  
- The IAEA could use TRANSSC and TranSAS as forums to develop such relationships between MS.  
- The IAEA should inform MS of the national competent authority (CA) list, the web sites of the CA, and keep them up to date.  

The WG made 2 recommendations from these discussions, as listed in section 7.1.
<table>
<thead>
<tr>
<th>Task</th>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
</table>
| e) Compile a list of variations in national regulations and review for implications for TRANSSC and TS-R-1 (now SSR-6) | Not yet started | - all participants agreed that a list of variations would be useful  
- ICAO has a list of country variations to their regulations on their website; (http://www.icao.int/safety/DangerousGoods/Pages/StateVariationPage.aspx). A similar format for presenting and posting the variations could be used by the IAEA.  
- Most MS must adhere to many different transport regulations (ADR, ADN, IMO, ICAO, etc.).  
- MS use different versions of the IAEA regulations.  
- It may require a lot of resources for some MS to determine the variations.  
- Keeping the list up to date may require a lot of resources.  
- Recommend that the IAEA start with a list of which MS apply which version of the IAEA regulations, as well as which other transport regulations they follow. |
| f) Provide self-assessment tools for regulators                          | Complete | -                                                                      |
| g) Revise TS-G-1.6 (now SSG-33) to provide new schedules and guidance to implement TS-R-1 2009 and 2012 Editions | Complete | -                                                                      |
| 2) Continue ISC action plan via proposed new UN inter-agency committee | Ongoing w/IAG  | -                                                                      |
| 3) Continue to conduct needs assessments dealing with regulations and operator security | Not in scope of TM | -                                                                      |
| 4) Develop model regulations for RAM security transport to enhance implementation | Not in scope of TM | -                                                                      |
5) Provide RAM transport security assistance in MS where appropriate (based on requested assessment mission)  
Not in scope of TM  
6) Reduced TranSAS based on mutual support / not pass or fail  
Not yet started.  

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Last TranSAS (Transport Safety Appraisal Services) was performed in 2005 (Japan). Subsequent transport reviews have been part of IRRS missions and have to be requested by the MS.

- TranSAS is a 2 week detailed review of transport activities, while the IRRS transport review is a one or two day review.
- Several MS participating in the meeting have IRRS missions scheduled in the near future, with some including transport.
- Many countries have a small number of regulatory staff for transport and so a 2 week review may be too much.
- The IRRS affects many organizations and requires a lot of resources, both from the IAEA and the MS. A TranSAS may be more economical if scaled to the needs of the MS.
- Some MS were not aware that a transport review had to be specially requested as part of the IRRS. This is not clear on the IRRS web site information. Recommend the IAEA clarify this in their documentation and in their promotion of the IRRS.
- Mutual support is somewhat preferable to a pass/fail audit. Either way a set of recommendations for improvement is produced, so the outcome is the same.
- Recommend the IAEA should consider periodic independent reviews of transport regulatory programs, such as TranSAS, but ensure the review is scaled to the needs of the MS and that the review is performed through mutual support rather than through pass/fail criteria.

The WG made 2 recommendations from these discussions, as listed in section 7.1.
<p>| | | |</p>
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<tbody>
<tr>
<td>7) IAEA with ISC to develop questionnaire which industry, through broader NFP base, will complete to provide information about difficulties faced related to different regulatory requirements in different MS</td>
<td>Draft questionnaire completed</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>The WG completed a draft questionnaire (see Addendum 2) as per Terms of Reference #7 (see Section 2) for further development</td>
<td></td>
</tr>
<tr>
<td>8) Look at transport safety/security synergies (e.g. trusted shippers – ensure it is not a recommendation of some specific companies, certified professionals)</td>
<td>Not in scope of TM</td>
<td>-</td>
</tr>
<tr>
<td>9) Dialogue with MS to inform them of assistance available in security</td>
<td>Not in scope of TM</td>
<td>-</td>
</tr>
</tbody>
</table>
**ADDENDUM 2: Draft Questionnaire**

**Questionnaire for Problems in the Transport of Radioactive Material Related to Differing Regulatory Requirements in Member States**

### General Information

<table>
<thead>
<tr>
<th>Name (optional)</th>
<th>Title</th>
</tr>
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<tbody>
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</table>

Address/Contact Information (optional):

<table>
<thead>
<tr>
<th>Function:</th>
<th>Regulator □ Designer □ Manufacturer □ User □ Handler □ Consigner □ Carrier □ Consignee □ Other</th>
</tr>
</thead>
</table>

IAEA Regulations (Edition) in use:

Other International Regulations in use (if applicable):

### Details of the Problem

<table>
<thead>
<tr>
<th>Date when problem occurred:</th>
<th>Place where problem occurred:</th>
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</table>

Parties involved in the problem: (carrier, port, customs, others):

Problem is related to:

- safety □ security □ design approval □ manufacturing □ transport index □ criticality safety index □ shipping documentation □ radiation protection □ criticality safety □ marking and labelling □ conformity of the vehicle □ training □ other

Brief description of the problem:

Did the problem occur in the approval for transport or in the transport itself?

### Regulations Associated with the Problem

Applicable National Regulations:

<table>
<thead>
<tr>
<th>Paragraphs of the IAEA Regulations and/or Other International Regulations:</th>
</tr>
</thead>
</table>
**Package Description**

<table>
<thead>
<tr>
<th>Package model/type:</th>
<th>Certificate number and expiry date (if applicable):</th>
<th>Mode of transport:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contents:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Problem Resolution**

<table>
<thead>
<tr>
<th>Was the problem resolved?</th>
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<table>
<thead>
<tr>
<th>If yes, how was it resolved?</th>
</tr>
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<tr>
<th>If no, what is the status?</th>
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**Other Information (attach if required):**

**Suggestions for improvements to the regulations or general recommendations:**
Annex 8.3 Working Group 3 Report
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

TM-49609

Room C0219
IAEA Headquarters, Vienna
23 to 27 March 2015

REPORT OF WORKING GROUP No. 3 – Emergency Response
Draft Report of Working Group No. 3 – Emergency Response

The working group convened Tuesday morning, 24 March 2015, until Thursday afternoon, 26 March 2015, and deliberated according to the Terms of Reference Provided.

1. WORKING GROUP MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guy Lourtie (Working Group Chair)</td>
<td>Belgium</td>
<td>Federal Agency for Nuclear Control</td>
</tr>
<tr>
<td>Akiko Konnai (Working Group Secretary)</td>
<td>Japan</td>
<td>National Maritime Research Institute</td>
</tr>
<tr>
<td>Juraj Vaclav</td>
<td>Slovakia</td>
<td>Nuclear Regulatory Authority of the Slovak Republic</td>
</tr>
<tr>
<td>Nik M.F. Khairuddin</td>
<td>Malaysia</td>
<td>Atomic Energy Licensing Board</td>
</tr>
<tr>
<td>Velibor Cukovic</td>
<td>Bosnia and Herzegovina</td>
<td>State Regulatory Agency for Radiation and Nuclear Safety</td>
</tr>
<tr>
<td>Slavko Radonjic</td>
<td>Montenegro</td>
<td>Agency for Environmental Protection (EPA)</td>
</tr>
<tr>
<td>Aida Avetisyan</td>
<td>Armenia</td>
<td>Armenian Nuclear Regulatory Authority</td>
</tr>
<tr>
<td>Zakaria Yameogo</td>
<td>Burkina Faso</td>
<td>Autorité Nationale de Radioprotection et de Sûreté Nucléaire</td>
</tr>
<tr>
<td>Rustem Paci</td>
<td>Albania</td>
<td>Radiation Protection Office</td>
</tr>
<tr>
<td>Zayda Haydeé Amador Balbona</td>
<td>Cuba</td>
<td>Centro de Isótopos</td>
</tr>
<tr>
<td>Hany Amer</td>
<td>Egypt</td>
<td>Egyptian Nuclear &amp; Radiological Regulatory Authority</td>
</tr>
<tr>
<td>Andrzej Grzegrzolka</td>
<td>Poland</td>
<td>Radioactive Waste Management Plant</td>
</tr>
<tr>
<td>Betty Bonnardel-Azzarelli (part-time)</td>
<td></td>
<td>World Nuclear Transport Institute</td>
</tr>
<tr>
<td>Timo Lempiäinen</td>
<td></td>
<td>The International Federation of Air Line Pilots’ Association</td>
</tr>
</tbody>
</table>

2. TERMS OF REFERENCE
The terms of reference for this WG are in addendum 1.

3. EXPECTED OUTPUT

A working group report will be drafted and will include details on the work completed in the terms of reference highlighted in addendum 1. This report should be written in accordance with a template (this report) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the table provided, is also expected.

4. APPROACH TAKEN BY THE WORKING GROUP

In order to address the terms of reference, the working group agrees on the agenda in addendum 2.

5. DOCUMENTS REVIEWED BY THE WORKING GROUP

The following documents were reviewed by the working group:

1) President’s Findings for the International Conference on the Safe and Secure Transport of Radioactive Materials October 2011.
3) Current version of TS-G-1.2, *Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material*
4) Document Preparation Profile (DPP) for DS469
5) Current draft of the EPR Guidance document *Emergency Preparedness and Response for Radiation Emergencies During Transport*
6. SUMMARY OF DISCUSSIONS

6.1 Review of the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Emergency Response (Work to be done 1 in WG3 Terms of Reference)

The working group reviews these two documents.

6.2 Make note in the table with the recommendations: partially or fully implemented / no longer applicable and develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions (Work to be done 2 and 3 in WG3 Terms of Reference)

The working group reviews the table, makes note (status and priority) and revises the recommendations in these table, see addendum 3.

6.3 Review the current version of TS-G-1.2, Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material, the Document Preparation Profile (DPP) for DS469 and the current draft of the EPR Guidance document Emergency Preparedness and Response for Radiation Emergencies During Transport (Work to be done 4 in WG3 Terms of Reference)

The working group reviews these 3 documents and finds some similarity in the draft of the EPR Guidance document in comparison with the current TS-G-1.2.

To clarify the objective of EPR Guidance document, as requested by the working group, a representative from IEC, Mr Mark Breitinger, joins the discussion to explain the scope and objective of EPR Series. The EPR Publication is a practical guidance not subjected to the same approval process as a Specific Safety Guide.

The working group discuss also the interface between the “new” TS-G-1.2 and the current draft EPR Guidance document.

The working group agrees to have a clear objective for each document (“new” TS-G-1.2 and EPR Publications) and not to duplicate.

The working group reviews and amends the objectives of the “new” TS-G-1.2 and of the future EPR Publications. The working group agrees that the “new” TS-G-1.2 should take into account all events (event (no safety significance), incident, accident) related to transport of radioactive material (see also INES scale). The working group proposes to clarify the objective of the guidance material as follows:

- Objective of the “new” TS-G-1.2:

  The objective of this Specific Safety Guide is to provide guidance to the state authorities and others (including consignors, carriers, consignees and emergency responders) who are responsible for developing, establishing and implementing emergency...
arrangements for dealing effectively and safely with transport events involving radioactive material. It may assist those concerned with establishing the capability to respond to such transport events. It provides guidance to establish Emergency and Response Plan or to update the existing one. This Specific Safety Guide is neither a collection of rules nor a list of approved steps and actions.

- Objective of the future EPR Publications:

  The objective of this publication is to provide practical guidance for specific team (to be identified) to conduct specific task (to be identified) in response to nuclear or radiological emergency related to transport.

The working group reviews the contents of these two documents and provides a content for the “new” TS-G-1.2 including input from the current draft EPR Guidance document. More detail can be found in addendum 4.

The working group reviews the DPP for DS469 and makes some comments on the table of 28 lessons learned from Fukushima Daiichi accident with IAEA Transport Safety Standard and the proposed actions (see annex 1 of the DPP for DS469 approved by TRANSSC25).

The recommendations from the working group to deal with the 28 lessons learned from Fukushima accident related to transport of radioactive material are summarized in addendum 5.

The working group proposes to continue the revision process of TS-G-1.2 as soon as possible according to the revised DPP for DS469 (see addendum 6).
7. FINDINGS, RECOMMENDATIONS AND IMPLEMENTATION

7.1 Review of the President’s Findings and Recommendations from the 2012 follow-up TM in the area of National Implementation and Industry Compliance and Make note in the table with the recommendations: partially or fully implemented / no longer applicable and develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions (Work to be done 1, 2 and 3 in WG3 Terms of Reference)

1) **Recommendation** – update **TS-G-1.2**

Update of the TS-G-1.2 is necessary including lessons learned:
- In the area of transport, from Fukushima accident
- From events related to transport of radioactive material

**Priority – High**

2) **Recommendation** – **Training**

Training material already exists but should be developed in some areas, i.e.:
- For awareness of some involved parties/personnel not familiar with transport of radioactive material
- For the first responder’s teams including the use of the instrumentation
- For the emergency management

**Priority – High**

3) **Recommendation** – **coastal state concerns**

- To respond in part to coastal state concerns about lack of information in case of accident:
  - the role of the NFP “denial of shipment” is very important and the list of NFP is still existing on the IAEA web site;
  - some appointed NFP always work together;
  - the regional network may be a platform to deal on these coastal state concerns.
- To review the conclusion of CS-42274 (May 2011)

**Priority – Medium**

4) **Recommendation** – **simple emergency response information for significant packages**

To develop a template to collect simple emergency response information for significant packages (type B, C and containing fissile material) and after to make available on IEC web page for appropriate personnel (limited access)

**Priority – Medium**
7.2 Review the current version of TS-G-1.2, the Document Preparation Profile (DPP) for DS469 and the current draft of the EPR Guidance document *Emergency Preparedness and Response for Radiation Emergencies During Transport* (Work to be done 4 in WG3 Terms of Reference)

1) **Recommendation** – update TS-G-1.2.

To have a clear objective for each guidance material (“new” TS-G-1.2 and EPR Publications) and not to duplicate:

- Content of the “new” TS-G-1.2: “principles” for planning, preparedness and response to transport events
- Content of the EPR Publication(s): practical guidance for specific team (to be identified) to conduct specific task (to be identified)
- A proposal of content for the “new” TS-G-1.2 is provided by the Working Group in the revised DPP for DS469 taking into account inputs from the draft of the EPR Guidance document

**Next steps:**
1. “new” TS-G-1.2
2. Identify the need for EPR Publication(s) in some areas/topics, i.e.:
   - Examples of response to transport events
   - Example of equipment kit for a radiation protection team
   - Guidance on emergency response for carriers
   - Emergency response guides for first responders
   - etc.
3. Develop EPR Publication(s)

**Priority – High**

The working group doesn’t deliberately review the schedule of the DPP for DS469 in the absence of a clear view of the IAEA review process and of the workload of the secretariat.

8. **CONCLUSION**

The working group recommends for revision of TS-G-1.2 and the current draft of EPR Guidance document:

- To have each a clear objective and not to duplicate documents.
- To have one Specific Safety Guide (“new” TS-G-1.2) including some items from the draft of the EPR Guidance document.
- To identify and, if needed, develop EPR Publication as practical guidance for specific team (to be identified) to conduct specific task (to be identified).

The working group proposes in the revised DPP for DS469 a content of the “new” TS-G-1.2 taking into account inputs from the draft of the EPR Guidance document (see addendum 6).
ADDENDUM 1: Terms of reference for WG #3 on Emergency Response

IAEA
International Atomic Energy Agency

TM-49609
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

IAEA Headquarters, Vienna
23 to 37 March 2015

PROVISIONAL TERMS OF REFERENCE for Working Group #3 on Emergency Response
Terms of Reference for Working Group #3

A. Background:

To mark the fiftieth anniversary of the issue of its first Regulations for the Safe Transport of Radioactive Materials in 1961, the International Atomic Energy Agency (IAEA) held the International Conference on the Safe and Secure Transport of Radioactive Material: The Next Fifty Years of Transport — Creating a Safe, Secure and Sustainable Framework (Transport Conference), in Vienna in October 2011.

The President's findings from the Transport Conference were considered in a March 2012 Technical Meeting (TM-43650) which produced a report of recommended activities to address the President's findings. The outline of work prepared for the Technical Meeting (TM) summarized the President's findings under eight topical areas including: harmonization, denials of shipment, basis of provisions, Safety Requirements and security recommendations, national implementation and industry compliance, emergency response, communications, and regional considerations. A ninth topic in the Transport Conference President's findings on liability was not addressed by the Technical Meeting because that topic had been assigned to the International Expert Group on Nuclear Liability (INLEX) for consideration.

In April 2013, TM-44897 was held to follow up on Transport Conference recommendations involving possible changes to the transport regulations. This TM provided input to the 2013 IAEA biennial review cycle for considering changes to the Regulations for the Safe Transport of Radioactive Material (SSR-6). A third meeting (TM-47137) held in April 2014, focused on the implications of the President's findings from the 2011 conference and the recommendations from the March 2012 TM and April 2013 TM for the specific areas of denial of shipment, communication, and harmonization.

B. Work to be done

The participants of this Working Group (WG) are asked to:

1) Review the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Emergency Response.

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a “high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).
4) Review the current version of TS-G-1.2, *Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material*, the Document Preparation Profile (DPP) for DS469 and the current draft of the EPR Guidance document *Emergency Preparedness and Response for Radiation Emergencies During Transport*. Based on your review of these documents, provide the following:

a. Provide general feedback/recommendations related to the updating of TS-G-1.2, and any needed revisions to the DPP (including the schedule).

b. An update of the TS-G-1.2 document (as time allows) beginning with updating references in the document. Word version of this document [here](#).

c. Recommendations on the interface between the TS-G-1.2 and the draft EPR guidance (i.e., where should one document “end” and where should the other one “begin”?)

C. Expected Output

A working group report will be drafted and will include details on the work completed in the areas of work highlighted in Section B above. A portion of the report addressing the recommendations from the 2011 transport conference should be written in accordance with a template (to be provided) so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the [table](#) provided, is also expected.
ADDENDUM 2: Agenda for the WG3

24 March 2015
9:00 – 10:30
1. Review the President’s findings and Recommendations from the 2012 follow-up TM in the area of Emergency Response
2. Make note in the table with the recommendations: partially or fully implemented / no longer applicable
10:30 – 11:00 coffee break
11:00 – 13:00
3. Develop a roadmap for implementation of the recommendations that have not yet been completed with priority (high – need to be implemented / medium – should be implemented / low – could be implemented)
13:00 – 14:00 lunch
14:00 – 15:30
4. Review the current version of TS-G-1.2, the DPP for DS469 and the EPR publication
   4.1. General feedback/recommendations related to the updating of TS-G-1.2 and revisions of DPP
   4.2. Update of TS-G-1.2 (as time allows)
   4.3. Recommendations on interface between TS-G-1.2 and the draft EPR publication (i.e. where should one document “end” and where should the other “begin”)
15:30 – 16:00 coffee break
16:00 – 17:30
4. Review the current version of TS-G-1.2, the DPP for DS469 and the EPR publication, cont.

25 March 2015
9:00 – 10:30
4. Review the current version of TS-G-1.2, the DPP for DS469 and the EPR publication, cont.
10:30 – 11:00 coffee break
11:00 – 13:00
4. Review the current version of TS-G-1.2, the DPP for DS469 and the EPR publication, cont.
13:00 – 14:00 lunch
14:00 – 15:30
4. Review the current version of TS-G-1.2, the DPP for DS469 and the EPR publication, cont.
15:30 – 16:00 coffee break
16:00 – 17:30
4. Review the current version of TS-G-1.2, the DPP for DS469 and the EPR publication, cont.
26 March 2015

9:00 – 10:30
5. Preparation of WG update for plenary
10:30 – 11:00 coffee break
11:00 – 13:00
6. Reconvene Plenary
13:00 – 14:00 lunch
14:00 – 15:30
7. WG discussions
15:30 – 16:00 coffee break
16:00 – 17:30
8. WG report
## ADDENDUM 3: 2012 Recommendations Table

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Status</th>
<th>Priority</th>
<th>Notes and/or Revised Recommendations</th>
</tr>
</thead>
</table>
| 1) Continue with transport safety work plan | Ongoing w/TRANSSC | High | - TS-G-1.2 ongoing Recommendations how to take into account lessons learned from Fukushima accident  
- Guidance for coastal/overflight states’ response to maritime/air emergencies => review conclusion of CS-42274 (May 2011)  
- Self-assessment tools for regulators, done |
| Fukushima review will need to be considered  
Revise TS-G-1.2 to provide new guidance for Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material  
Develop new guidance for coastal/overflight states’ response to maritime/air emergencies  
Provide self-assessment tools for regulators | Medium | / |
| 2) Continue ISC action plan via inter-agency committee | Ongoing w/IAG | Medium | Continue the work within IAG |
| 3) To respond in part to coastal state concerns about lack of information encourage dialogue on awareness of RAM uses, packagings, regulatory requirements, shipping practices, etc. rather than information on specific shipments | Ongoing | High | Some general information (paper, film) on transport of RAM already exists.  
The WG recommends to develop awareness training material, not only for the Regulators but also for the other authorities (port, custom, …).  
The role of the NFP “denial of shipment” is very important and IAEA should encourage the appointment of a NFP in each state. |
| 4) Response needs to be based on the emergency, but should be cognisant of the potential for a crime scene investigation, therefore closer collaboration on response is needed between safety, security and IEC | Not yet started | High | Some recommendations to be developed in TS-G-1.2 or EPR publication:  
- Cooperation between authorities and different teams  
- Appointment of a coordinator at state level  
- Emergency response for transport “accident” is part of the national emergency plan and depends on the origin of “accident” |
- Saving lives is the number one priority and attention to evidence on crime scene should also be taken into account

5) Consider legitimate protest extending beyond acceptable bounds to be possibly confused with terrorist activities – interface with law enforcement

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Status</th>
<th>Priority</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Not in scope of TM</td>
<td>Started</td>
<td>Medium</td>
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6) Examine response needs for transport

- Ensure that existing networks such as the Response and Assistance Network (RANET) can provide the transport response if requested

- Ensure ICAO/IMO frameworks are considered

<table>
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<tr>
<th>Task Description</th>
<th>Status</th>
<th>Priority</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Started</td>
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<td>High</td>
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</table>
| IAEA to encourage Member States to join Emergency Conventions and RANET Member States to disseminate feedback on use of the RANET
| Some rescue teams are not aware of radiological consequences. Training can help to improve this situation. |

7) Examine and promote development of dispersion modelling for emergency preparedness and response, including safety and security considerations including transport specific issues (e.g. water pathway modelling)

<table>
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<tr>
<th>Task Description</th>
<th>Status</th>
<th>Priority</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Not yet started</td>
<td>Medium</td>
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<tr>
<td>Some dispersion modelling already exists (e.g. ARGOS). To be considered taken into account the results and conclusions of Transport WG on scenario’s accidents</td>
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8) Emergency response should consider IMO/ICAO search and rescue convention

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<th>Task Description</th>
<th>Status</th>
<th>Priority</th>
<th>Notes</th>
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<tr>
<td>To be considered in TS-G-1.2 or EPR publication</td>
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9) Provide simple emergency response information for significant packages at IEC for use in emergency and make available on IAEA web page

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<tr>
<th>Task Description</th>
<th>Status</th>
<th>Priority</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Not yet started</td>
<td>Medium</td>
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</tbody>
</table>
| Resources/information on packages available on IEC website
| Significant packages to be clarified? => type B or C packages or containing fissile material
<p>| Develop a template to collect this type of response information on significant packages |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>10) Examine lessons learned from non-radioactive incidents where the system did not work as well as expected</td>
<td>Started</td>
<td>Medium</td>
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<tr>
<td></td>
<td></td>
<td>A project is started at UN for the transport of dangerous goods but the present status should be communicated to IAEA Member States. Lessons learned and return of experience should be shared at national level.</td>
</tr>
<tr>
<td>11) Examine lessons learned from Fukushima that could relate to transport (e.g. search and response capability)</td>
<td>Ongoing</td>
<td>High</td>
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<tr>
<td></td>
<td></td>
<td>See DPP (DS469) to review TS-G-1.2</td>
</tr>
<tr>
<td>12) Enhance regional network membership to assist in achieving international harmonization in the area of transport safety and security</td>
<td>Not in scope of TM</td>
<td>/</td>
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ADDENDUM 4: Comparison content TS-G-1.2 vs. draft EPR guidance document

Comparison table of TS-G-1.2 and the current draft of the EPR document

<table>
<thead>
<tr>
<th>TS-G-1.2</th>
<th>SSG</th>
<th>The current draft of the EPR document</th>
<th>Other doc</th>
<th>Where to add</th>
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<td>1. INTRODUCTION</td>
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<td>Background (1.1–1.7)</td>
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<td>Objective (1.8–1.10)</td>
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<td>Scope (1.11–1.13)</td>
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<td>Structure (1.14–1.16)</td>
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<td>2. FRAMEWORK FOR PLANNING AND PREPARING FOR</td>
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<td>2. INTERFACES WITH SAFETY AND SECURITY</td>
<td>For SSG</td>
<td>SSG New Appendix IV</td>
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<td>RESPONSE TO ACCIDENTS IN THE TRANSPORT OF</td>
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<td>RADIOACTIVE MATERIAL (2.1–2.7)</td>
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<td>2.1. Safety Considerations for transport emergency preparedness and response</td>
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<td>2.2. SECURITY CONSIDERATIONS FOR</td>
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<td>TRANSPORT EMERGENCY PREPAREDNESS AND</td>
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<td>RESPONSE</td>
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<td>3. RESPONSIBILITIES FOR PLANNING AND PREPARING</td>
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<td>3. ELEMENTS FOR EMERGENCY PREPAREDNESS</td>
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<td>Sec. 3</td>
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<td>FOR RESPONSE TO ACCIDENTS IN THE TRANSPORT</td>
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<td>AND RESPONSE DURING TRANSPORT</td>
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<td>3.2–3.5</td>
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<td>OF RADIOACTIVE MATERIAL</td>
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<td>3.1. ROLES AND RESPONSIBILITIES IN</td>
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<td>3.2. RESPONSIBILITIES OF INTERNATIONAL</td>
<td>To SSG</td>
<td>Sec. 2</td>
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<td>AND RESPONSE</td>
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<td>3.3. HAZARD ASSESSMENT</td>
<td>Principles to SSG</td>
<td>Sec. 4</td>
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<td>3.4. PROTECTION STRATEGY FOR AN</td>
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<td>3.5. MANAGING EMERGENCY RESPONSE</td>
<td>To SSG</td>
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<td>OPERATIONS</td>
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<td>3.6. IDENTIFYING AND NOTIFYING A</td>
<td>To SSG</td>
<td>2.6 (Cat. 4)</td>
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<td>AND ACTIVATING AN EMERGENCY RESPONSE</td>
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<td>3.7. TAKING MITIGATORY ACTIONS</td>
<td>To SSG</td>
<td>Sec. 4</td>
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<td>3.8. TAKING URGENT PROTECTIVE ACTIONS</td>
<td>Principles to SSG</td>
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<td>AND OTHER RESPONSE ACTIONS</td>
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<td>3.9. PROVIDING INSTRUCTIONS, WARNINGS</td>
<td>To SSG</td>
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<td>3.10. PROTECTING EMERGENCY WORKERS AND HELPERS IN AN EMERGENCY</td>
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<td>3.11. MANAGING THE MEDICAL RESPONSE IN A NUCLEAR OR RADIOLOGICAL EMERGENCY</td>
<td>To SSG + ref to existing EPR Doc</td>
<td>3.11</td>
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<td>3.12. COMMUNICATING WITH THE PUBLIC THROUGHOUT A NUCLEAR OR RADIOLOGICAL EMERGENCY</td>
<td>To SSG + ref to existing EPR Doc</td>
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<td>3.13. TAKING EARLY PROTECTIVE ACTIONS AND OTHER RESPONSE ACTIONS</td>
<td>To § 3.9 EPR doc</td>
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<td>3.15. MITIGATING NON-RADIOLOGICAL CONSEQUENCES OF A NUCLEAR OR RADIOLOGICAL EMERGENCY AND EMERGENCY RESPONSE</td>
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<td>3.16. REQUESTING, PROVIDING AND RECEIVING INTERNATIONAL ASSISTANCE FOR EMERGENCY PREPAREDNESS AND RESPONSE</td>
<td>Principles to SSG</td>
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<td>3.18. ANALYSING THE EMERGENCY AND THE EMERGENCY RESPONSE</td>
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<td>3.19. AUTHORITIES FOR EMERGENCY PREPAREDNESS AND RESPONSE</td>
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<td>3.20. ORGANIZATION AND STAFFING FOR EMERGENCY PREPAREDNESS AND RESPONSE</td>
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<td>3.22. PLANS AND PROCEDURES FOR EMERGENCY RESPONSE</td>
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<td>3.23. LOGISTICAL SUPPORT AND FACILITIES FOR EMERGENCY RESPONSE</td>
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<td>3.24. TRAINING, DRILLS AND EXERCISES FOR EMERGENCY PREPAREDNESS AND RESPONSE</td>
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<td>3.25. QUALITY MANAGEMENT SYSTEM FOR</td>
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5.92–5.94 and Appendix VI

3.16–3.19

/ 5.92–5.94

/ 5.92–5.94

/ Sec. 4

/ Sec. 4

Principles to SSG ERNET should be replaced by RANET

/ Sec. 4

Principles to SSG Sec. 3

Principles to SSG Sec. 3

Principles to SSG Sec. 3

To SSG 5.71–5.88

To SSG Sec. 3
### 4. PLANNING FOR RESPONSE TO ACCIDENTS IN THE TRANSPORT OF RADIOACTIVE MATERIAL

- General (4.1–4.3)
- Emergency planning and preparedness (4.4–4.13)

### 5. PREPARING FOR RESPONSE TO ACCIDENTS IN THE TRANSPORT OF RADIOACTIVE MATERIAL

- General (5.1–5.3)
- Phases of response for transport accidents (5.4)
- Phases of response for road transport accidents (5.5–5.60)
- Special considerations relating to transport by other modes (5.61–5.70)
- Training for emergency response in transport accidents (5.71–5.79)
- Emergency drills and exercises for response to transport accidents (5.80–5.88)
- Review of transport emergency plans (5.89–5.91)
- Public information and communication (5.92–5.94)

<table>
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<tr>
<th>4. ELEMENTS FOR ROAD TRANSPORT EPR</th>
<th>Principles to SSG</th>
<th>Sec. 5</th>
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<td>Sec. 5</td>
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<td>6. ELEMENTS FOR AIR TRANSPORT EPR</td>
<td>Principles to SSG</td>
<td>Sec. 5</td>
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<tr>
<td>7. ELEMENTS FOR MARITIME TRANSPORT EPR</td>
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<td>Sec. 5</td>
</tr>
<tr>
<td>8. ELEMENTS FOR INLAND WATERWAY TRANSPORT EPR</td>
<td>Principles o SSG</td>
<td>Sec. 5</td>
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</table>

Take into account specific requirements from the modal organizations/codes.
| APPENDIX I: FEATURES OF THE TRANSPORT REGULATIONS INFLUENCING EMERGENCY RESPONSE TO TRANSPORT ACCIDENTS | OK | Specific matrix for each mode | NEW |
| APPENDIX II: PRELIMINARY EMERGENCY RESPONSE REFERENCE MATRIX | OK | | |
| APPENDIX III: GUIDE TO SUITABLE INSTRUMENTATION | OK | | |
| APPENDIX IV: OVERVIEW OF EMERGENCY MANAGEMENT FOR A TRANSPORT ACCIDENT INVOLVING RADIOACTIVE MATERIAL | OK | To EPR doc | |
| APPENDIX V: EXAMPLES OF RESPONSE TO TRANSPORT ACCIDENTS | OK | To EPR | |
| APPENDIX VI: EXAMPLE EQUIPMENT KIT FOR A RADIATION PROTECTION TEAM | OK | To EPR | |

REFERENCES

ANNEX I: EXAMPLE OF GUIDANCE ON EMERGENCY RESPONSE TO CARRIERS | To EPR |

ANNEX II: EMERGENCY RESPONSE GUIDES | To EPR |

BIBLIOGRAPHY

CONTRIBUTORS TO DRAFTING AND REVIEW BODIES FOR THE ENDORSEMENT OF SAFETY STANDARDS

REFERENCES

CONTRIBUTORS TO DRAFTING AND REVIEW

The meaning of “High lights” in the contents of EPR document are:
- Yellow: Not existing in TS-G-1.2.
- Gray: could be merged into other item in the EPR guidance.
(OIL): already existing in TS-G-1.2
ADDENDUM 5: Recommendations related to the appendix 1 “28 lessons learned from Fukushima Daiichi accident with IAEA Transport Safety Standard” of the DPP for DS469

The reference from the table with the 28 lessons Learned from Fukushima accident are identified by the reference number in brackets.

1. (1) Natural phenomena/events are not fully covered by the existing regulations for the design of packages.
   Risk assessment based on occurrence frequency and consequence events could be difficult taken into account the international aspect of transport.

   If natural phenomena/events are occurred and/or forecasted, the transport should be stopped or the route should be changed.

   This issue on natural phenomena/events has been discussed in the TM-44891 on the Transport Environment (2013). The conclusion on conditions and scenario’s accidents/test requirements is “Current accident tests and requirements are appropriate but recommends emergency planning may be improved.”

2. (5) Accident Management Measures

3. (6) Other events should be taken into account simultaneously with transport accidents.

4. (8) Other risks should be taken into account in the planning and preparing of response.

5. (11) The emergency centre is known in advance but a local centre can be located near the accident scene to manage the different response teams.

6. (12) Take the reference level of GS-R part 3 (BSS) during planning for response to the accident scenario.

7. (13) The guidance should consider given example of severe accidents: transport of spent fuel, transport of RTEG (Sr-90), etc.

8. (15) Material and equipment should be listed in the guidance document also training how to use it and management system (quality assurance/control, calibration, etc.).
9. (16), see 3 (6)

10. (20) Check the mechanism for notification of accident with radiological consequences outside the country to the neighbouring countries and/or to IAEA, see INFCIRC/335 Convention on Early Notification of a Nuclear Accident (Article 5).

11. (21) Communication should come from the country where the accident occurs

12. (22) The WG agrees that practical guidelines and working procedures are needed and should be incorporated in TS-G-1.2.
ADDENDUM 6: Revised DPP fo DS469

Document Preparation Profile (DPP)
DS469 August 2012

1. IDENTIFICATION
Working ID: DS469
Proposed Title: Planning and Preparing for Response to Transport Events Involving Radioactive Material, TS-G-1.2
Proposed Action: Revision of a document
Review Committee(s) or Group: TRANSSC, NSGC, IEC
Technical Officer(s): K.K. Varley; NSRW

2. BACKGROUND/RATIONALE
(Describe, for a proposed new publication, the rationale for covering an additional topic not yet addressed by existing publications, as identified through a gap analysis. For the revision of an existing publication, describe briefly the previous publication and provide a summary of the relevant experience feedback from its use including feedback from Member States and IAEA services. Mention the feedback analysis report attached to the DPP.

Radioactive material is an integral part of modern life and used extensively in medicine, industry, agriculture, research, consumer products and electrical power generation. Globally, tens of millions of packages containing radioactive material are transported each year. To ensure the safety of people, property and the environment, national and international transport regulations have been developed. Stringent measures are required in these regulations to ensure adequate containment, shielding and the prevention of criticality in the event of a transport accident by all modes of transport. Despite the extensive application of safety controls, transport accidents involving packages containing radioactive material have occurred and will occur. Whenever a transport accident involving radioactive material occurs, and although many will pose no radiation safety problem, emergency response actions are required to ensure that radiation safety is maintained. If a transport accident occurs that results in a significant release of radioactive material, loss of shielding or loss of criticality control, the consequences should be controlled or mitigated by proper emergency response actions. Historically, there have been no reported transport accidents involving radioactive materials that have resulted in serious radiological consequences. Despite this excellent safety record, plans should be developed, responsibilities should be defined and preparedness actions should be taken to ensure that an adequate emergency response capability is available when transport accidents involving radioactive material do occur. TS-R-4SSR-6, GS-R Part 7-2 and interface with Modal documents will be taken into account.)
3. OBJECTIVE

(Describe the objective of the document in terms of what it is expected to achieve. It should focus on the proposed document rather than on the topic)

The objective of this Specific Safety Guide is to provide guidance to the public state authorities and others (including consignors, carriers, consignees and authorities involved in emergency preparedness and response emergency responders) who are responsible for developing and establishing and implementing emergency arrangements for dealing effectively and safely with transport events involving radioactive material. It will also provide guidance on establishing the capability to respond to such transport accidents. It provides guidance for those States whose involvement with radioactive material is just beginning. It also provides guidance for those States that have already developed their radioactive material industries and the attendant emergency plans but that may need to review and improve these plans to establish Emergency and Response Plan or to update the existing one.

The Specific Safety Guide shall define different terms, i.e.: event, incident and accident.

4. JUSTIFICATION

(For addressing a new topic, provide a summary of a review of existing publications in terms of current coverage and develop the added value expected for, and impact on the target users of, the coverage of the additional topic. For a new publication, justify in particular that the topic could not be addressed through the revision of, or an addendum to, an existing publication. For a revision of an existing publication or an addendum to an existing publication, provide a justification in terms of timeliness for this action, considering the date of the previous publication and the added value expected for, and impact on the target users of, the coverage of the additional topic).

Current version of Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material, (TS-G-1.2) was published in 2002. Technical Meeting in 2009, tasked to identify changes necessitating publication of a new edition of safety guide TS-G-1.2 recommended a revision. Expert consultants meeting March 2012 discussed the lessons learnt from the Fukushima Accident and their Relationship with the IAEA Safety Standards and Guides in the area of transport. This meeting recommended that TS-G-1.2 be revised to incorporate the lessons learned from the Fukushima accident and other transport accidents in the current revision process.

Amongst others, need for transport risk assessment, severe accident management guidelines, response to multi-site issues, subsidiary risk issues of UF₆ and environmental issues. Details are highlighted in Annex 1. Inclusion of more detailed emergency response measures, national/international framework to cope with transport accidents and communications. Consultation and coordination with Incident and Emergency Centre and Nuclear Safety and Nuclear Security is a prerequisite in producing a good revision of the guide.

The working group 3 of the TM-49609 recommends:

- To have for each documents (“new” TS-G-1.2 and EPR Guidance document) a clear objective and not to duplicate.
- To have one Specific Safety Guide (“new” TS-G-1.2) including some items from the draft of the EPR Guidance document.
- To identify and, if needed, develop EPR Publication as practical guidance for specific team (to be identified) to conduct specific task (to be identified).
5. PLACE IN THE OVERALL STRUCTURE OF THE RELEVANT SERIES AND INTERFACES WITH EXISTING AND/OR PLANNED PUBLICATIONS

(Identify the place of the proposed document in the overall structure of the relevant series and summarize the relationships between the document and other publications or documents in preparation).

- Safety Committees: TRANSSC will co-ordinate the review process;
- Other Safety Series and Safety Standards Series documents that have a direct interface with TS-G-1.2 are:
  - TS-G-1.5 “Compliance Assurance for the Safe Transport of Radioactive Material” (2009)
- Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards (Interim Edition), GSR Part 3
- Preparedness and Response for Nuclear or Radiological Emergency (GS-R Part 7.2)
- Arrangements for Preparedness and Response for Nuclear or Radiological Emergency (GS-G-2.1)
- Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency (GSG-2)
- Method for Developing Arrangements for Response to a Nuclear or Radiological Emergency
  - updating IAEA-TECDOC-953
- Interfaces also exist with all Member States and with relevant international organizations. Documents from:
  - Member States: Requests for proposals for change, and a summary of proposed changes are sent to all Member States. The Member States then have the opportunity to participate in the review process through TRANSSC and provide further support through related Technical Meetings and Consultant Services.
  - International Organizations: Liaison with other organizations for the development of TS-G-1.2 include:
    - United Nations Economic and Social Council (UN/ECOSOC)
    - International Civil Aviation Organization (ICAO)
    - International Maritime Organization (IMO)
    - UN/ECE/Inland Transport Committee’s International Regulations Concerning the Carriage of Dangerous Goods by Rail (RID), European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR), and European Agreements on the International Carriage of Dangerous Goods by Inland Waterways (ADN\textsuperscript{k})
    - MERCOSUR/MERCOSUL Agreement of Partial Reach to Facilitate the Transport of Dangerous Goods - Signed by the Governments of Argentina, Brazil, Paraguay and Uruguay.
    - International Federation of Airline Pilots Associations (IFALPA)
    - International Air Transport Association (IATA)
6. OVERVIEW

(Describe expected general content of the document, such as summary of the scope, structure and any other points to take into account when drafting. Attach any detailed information, e.g. outline of chapter heading, table of contents with details expected in each section, etc. For revision of, or addendum to existing publications it is expected to contain more details than for new proposed publications)

1. INTRODUCTION

Background
Objective
Scope
Structure
Definitions

2. FRAMEWORK FOR PLANNING AND PREPARING FOR RESPONSE TO ACCIDENTS EVENTS IN THE TRANSPORT OF RADIOACTIVE MATERIAL

Responsibilities of international organizations in emergency preparedness and response
Requesting, providing and receiving international assistance for emergency preparedness and response

3. RESPONSIBILITIES FOR PLANNING AND PREPARING FOR RESPONSE TO EVENTS ACCIDENTS IN THE TRANSPORT OF RADIOACTIVE MATERIAL

General
Responsibilities of the national co-ordinating authority
Responsibilities for notification and communication (including INES identification)
Responsibilities of governments
Responsibilities of consignors and carriers
Responsibilities of the radiation protection team
Quality management system for emergency preparedness and response

4. PLANNING FOR RESPONSE TO EVENTS ACCIDENTS IN THE TRANSPORT OF RADIOACTIVE MATERIAL

General
Emergency planning and preparedness
(managing radioactive waste in a nuclear or radiological emergency / taking mitigatory actions)

5. PREPARING FOR RESPONSE TO ACCIDENTS EVENTS IN THE TRANSPORT OF RADIOACTIVE MATERIAL

General
Phases of response for transport accidents events
Phases of response for road transport accidents events
Special considerations relating to transport by other modes
Training for emergency response in transport
Emergency drills and exercises for response to transport events
Review of transport emergency plans
Public information and communication

APPENDIX I: FEATURES OF THE TRANSPORT REGULATIONS INFLUENCING EMERGENCY RESPONSE TO TRANSPORT ACCIDENT EVENTS

APPENDIX II: PRELIMINARY EMERGENCY RESPONSE REFERENCE MATRIX

APPENDIX III: GUIDE TO SUITABLE INSTRUMENTATION

APPENDIX IV: OVERVIEW OF EMERGENCY MANAGEMENT FOR A TRANSPORT ACCIDENT EVENT INVOLVING RADIOACTIVE MATERIAL

APPENDIX V: INTERFACES WITH SAFETY AND SECURITY DURING TRANSPORT
APPENDIX VI: INTERNATIONAL NUCLEAR EVENTS SCALE (INES)

APPENDIX V: EXAMPLES OF RESPONSE TO TRANSPORT ACCIDENTS
APPENDIX VI: EXAMPLE EQUIPMENT KIT FOR A RADIATION PROTECTION TEAM

REFERENCES
INES manual

ANNEX I: EXAMPLE OF GUIDANCE ON EMERGENCY RESPONSE TO CARRIERS
ANNEX II: EMERGENCY RESPONSE GUIDES

BIBLIOGRAPHY
CONTRIBUTORS TO DRAFTING AND REVIEW
BODIES FOR THE ENDORSEMENT OF SAFETY STANDARDS

Indicate if the publication is expected to be co-sponsored by other organizations and the interactions envisaged with these organizations).

7. PRODUCTION SCHEDULE: Provisional schedule for preparation of the document, outlining realistic expected dates for (fill the column corresponding to your proposed document and delete the other columns):

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparing a DPP</td>
<td>April 2012</td>
</tr>
<tr>
<td>2</td>
<td>Approval of DPP by the Coordination Committee</td>
<td>August 2012</td>
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<td>3</td>
<td>Approval of DPP by the Safety Standards Committees or the relevant group where appropriate</td>
<td>October 2012</td>
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<td>4</td>
<td>Approval of DPP by the CSS</td>
<td>June 2013</td>
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<td>5</td>
<td>Preparing the draft</td>
<td>December 2013</td>
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<td>6</td>
<td>Approval of draft by the Coordination</td>
<td>April 2014</td>
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<td>Committee</td>
<td>Date</td>
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<td>STEP 7: Approval by the Safety Standards Committees</td>
<td>July 2014</td>
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<td>for submission to Member States for comments or the relevant group where</td>
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<td>appropriate</td>
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<tr>
<td>STEP 8: Soliciting comments by Member States</td>
<td>December 2014</td>
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<td>STEP 9: Addressing comments by Member States</td>
<td>April 2015</td>
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<td>STEP 10: Approval of the revised draft by the Coordination Committee</td>
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<td>Review in NS-SSCS</td>
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<td>STEP 11: Approval by the Safety Standards Committees for submission to</td>
<td>October 2015</td>
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<td>the CSS or the relevant group where appropriate</td>
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<tr>
<td>STEP 12: Endorsement by the CSS</td>
<td>November 2015</td>
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<tr>
<td>STEP 13: Establishment by the Publications Committee and/or Board of</td>
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<td>Governors (for SF and SR only))</td>
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<td>STEP 14: Target publication date</td>
<td>2015</td>
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8. **RESOURCES**

Estimated resources involved by the Secretariat (6-12 -weeks) and the Member States (number and type of meetings) 1 TM’s, 4 CSM’s
Annex 8.4  Working Group 4 Report
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

TM-49609

Room C0213
IAEA Headquarters, Vienna
23 to 27 March 2015

REPORT OF WORKING GROUP No. 4 – Regional Considerations
Draft Report of Working Group No. 4 – Regional Considerations

The working group convened Tuesday morning, 24 March 2015, and deliberated according to the Terms of Reference Provided.

1. WORKING GROUP MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muzna Assi (Working Group Chair)</td>
<td>Lebanon</td>
<td>Lebanese Atomic Energy Commission</td>
</tr>
<tr>
<td>Lt. Col. Kester D Weekes (Working Group Secretary)</td>
<td>Trinidad and Tobago</td>
<td>Trinidad and Tobago Defense Forces</td>
</tr>
<tr>
<td>Brig. Gen. Hassan Al-Nasef</td>
<td>Qatar</td>
<td>National Committee for Prohibition of Weapons (NCPW)</td>
</tr>
<tr>
<td>1st Lt. Ali Almuhannadi</td>
<td>Qatar</td>
<td>National Committee for Prohibition of Weapons (NCPW)</td>
</tr>
<tr>
<td>Opar John Otieno</td>
<td>Kenya</td>
<td>Radiation Protection Board - Ministry of Health</td>
</tr>
</tbody>
</table>

2. TERMS OF REFERENCE

The terms of reference for this WG were as follows;

1) Review the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Regional Considerations.

   1.1. Provide updated training materials, including web availability
   1.2. Make available and provide training on “e-schedules”
   1.3. Encourage MS to offer opportunity to other MSs to observe transport inspections and other transport activities such as package design reviews
   1.4. Provide technical cooperation assistance
   1.5. Hold denial of shipment regional workshop
   1.6. Coordinate regional networks and develop targeted training packages
   1.7. Provide transport safety film for training and public awareness

2) Make note in the table provided, of recommendations that have already been implemented (partially or fully) as well as recommendations that may no longer be applicable (given current transport conditions).

3) Develop a roadmap for implementation of the recommendations that have not yet been completed, including any recommendations with partially implemented actions, keeping in mind the current resources and tools available to the Agency and Member States for implementation. Please highlight which recommendations are most urgent by applying a
“high”, “medium” or “low” rating to each recommendation (High – need to be implemented, Medium – should be implemented, and Low – could be implemented).

4) After presentation of the IAEA region-based approach for transport safety and development of regional networks, provide feedback and recommendations on the regional approach and the planned Agency implementation.

5) Upon reviewing the Agency “Core Model” for regulatory oversight of the transport of radioactive material, provide feedback and recommendations on the further development and dissemination of the “Core Model” to regional transport networks.

3. EXPECTED OUTPUT

The working group report has been drafted including details on the work completed in the terms of reference highlighted in Section 2 above. This report has been written in accordance with a template provided so that it may be inserted into a report on the actions taken following the 2011 Transport Conference.

Completion of the columns for recommendation status, priority, and, as needed, notes and/or revised recommendations, on the table provided, has also been done.

4. APPROACH TAKEN BY THE WORKING GROUP

In order to address the terms of reference, the working group took the following approach:

- Reviewed documents provided on the website related to their field of work
- Searched and reviewed other related documents referenced in the documents provided
- Discussed the applicable issues in the documents in line with the terms of reference in Section 2
- Received guidance during discussions from Mr. Bajwa, Mr. Brach, and Dr. Rossi
- Agreed on all recommendations and comments on items listed in the terms of reference

5. DOCUMENTS REVIEWED BY THE WORKING GROUP

The following documents were reviewed by the working group:


5) TRANSSC 28 Meeting Report, June 2014
6) TRANSSC 29 Meeting Report, November 2014
8) IAEA Safety Standards Publication No. SSR 6: "Regulations for the Safe Transport of Radioactive Material"
9) IAEA Safety Standards Publication No. TS-G-1.1: "Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material"
10) IAEA Safety Standards Publication No. TS-G-1.2: "Planning and Preparing for Emergency Response to Transport Accidents Involving Radioactive Material"
11) IAEA Safety Standards Publication No. TS-G-1.3: "Radiation Protection Programmes for the Transport of Radioactive Material"
12) IAEA Safety Standards Publication No. TS-G-1.4: "Radiation Protection Programmes for the Transport of Radioactive Material"
13) IAEA Safety Standards Publication No. TS-G-1.5: "Compliance Assurance for the Safe Transport of Radioactive Material"

6. SUMMARY OF DISCUSSIONS
Revising the documentation provided, the working group carried out discussions on different topics highlighted in the 2012 report, in line with the president's findings in 2011. The WG also looked into and discussed the different other relevant documents and presentations related to "Regional Considerations".

"Regional considerations" terminology could be more linked to regions of newly emerging competent authorities with basic or no legislative systems for the safe transport of RAM. These countries, though coming from different regions, have common interest and certain needs. The main concern is to develop regulations for the safe transport of RAM. Though the core model provided could be considered a guidance for preparing regulations or applying IAEA recommendations, it is insufficient. There is a need to have a simpler document for "Model Regulations" that could be prepared in the "School of Drafting" tailored to the level of these countries.

It would also be beneficial to develop an assessment questionnaire (Addendum 2) which could be a one page document based on TSA7 and that helps in classifying countries according to their different transport operations. This is vital in specifying their needs in the training area as well as in the interaction between similar countries from different regional networks. These countries also share the need for raising the level of awareness as well as educating their CA staff or concerned radiation workers through the use of the different training tools that could be provided by the IAEA including, but not limited to, training courses, workshops, e-learning, etc...

In this respect, the cooperation and coordination, whether regional or interregional, could be beneficial in the areas of training, inspection visits, as well as sharing of knowledge and expertise. Information technology could also aid in giving more utility to these networks where websites could be developed and used, and where e-learning could serve as an efficient tool in training personnel.
These issues, and more, were discussed in details during group meetings, and the following items have been selected from the discussions of the terms of reference and the table of recommendations.

6.1 Review of the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Regional Considerations (Terms of Reference 1.1, 1.6)

6.1.1. Provide updated training materials, including web availability
A map for different training packages is needed to identify not only the most urgently needed training, but also the timeframe which specifies when these courses could be prepared. Training material already prepared need also to be made available on the web.

6.1.2. Coordinate regional networks and develop targeted training packages
More encouragement for coordination among networks is recommended. Also homogeneity among countries of different networks could bring them together for the exchange of experience especially when they have similar programs but different regulatory capabilities. This classification could be done through leveling of these countries by reviewing responses to the assessment questionnaires (Addendum 2). Moreover, classification of the countries, with respect to transport operations, could help identify their needs and also to avoid redundancy in preparation of targeted training packages especially among networks. This classification could based on import/export of RAM operations, packages maintenance, packages manufacture, packages design or transport of fissile materials. Attention should be paid to those countries that do not use fissile material but who could transit them.

6.2 After presentation of the IAEA region-based approach for transport safety and development of regional networks, provide feedback and recommendations on the regional approach and the planned Agency implementation. (Terms of Reference 4)

In addition to the discussion about regional networks cooperation and coordination mentioned in 6.1.2, the issue of funding was raised due to the fact that in a year's time, it is expected that some networks may not receive any more funding. The fact that for some regional networks, it is not possible to provide any other resources for their activities, and since periodical meetings and discussions are vital for the continuity of these networks, the issue of websites development under the IAEA main website was raised. These websites could serve as a common forum for the regional and interregional collaboration, and could provide the tool for virtual meetings. They could also serve as a functional tool for dissemination of information and sharing of experience and knowledge. This could be very helpful, especially, if scheduled coordinated video conferences according to a predefined agenda are done periodically.

6.3 Upon reviewing the Agency “Core Model” for regulatory oversight of the transport of radioactive material, provide feedback and recommendations on the further development and dissemination of the “Core Model” to regional transport networks (Terms of Reference 5)

Serving as a guidance that "introduces key practical elements which provide the starting point of regulatory control for the transport of radioactive material", the core model, with some modifications, could be a tool for transport operations especially for countries having transport operations and no regulations. However, discussion on the content of the core
model was whether this tool, as is, could be the base for developing regulations for the countries. This model has been discussed in depth from the content and structure perspectives. Different remarks were also made on its level of complexity and whether it could be simplified for emerging countries. The understanding of the core model is hard to be accomplished except if the publications SSR-6 and TS-G-1.5 are thoroughly understood in some parts. For this, and since the adoption of this guidance is meant to "enable a framework for regulatory control of transport to be implemented in a short timescale", it has been examined whether this is possible. Also it has been considered whether SSR-6 could be the aid for developing simpler model regulations for MS, through encouraging this through the school of drafting. In section 7, the output of these discussions will be expanded.

6.4 Consider regional pre-meetings before TRANSSC and regional feedback from TRANSSC meetings (Recommendation 3 from Table of Recommendations)

Due to the fact that some countries are not represented in TRANSSC, and sometimes, none from a certain region attends, it has been discussed how to get these countries involved in TRANSSC findings and also how to submit their demands to TRANSSC. It has also been suggested that it is vital for TRANSSC members or IAEA staff to participate in the regional networks’ meetings. The frequency of these meetings has also been discussed.

7. FINDINGS, RECOMMENDATIONS AND IMPLEMENTATION

7.1 Review of the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Regional Considerations (Terms of Reference 1.1, 1.2, 1.3, 1.4, 1.6, 4)

1.1) Finding: Regarding training material, there is one course that is available but not on web
Recommendation - Make updated training materials available on the web and develop other specific material according to CA needs.
Priority – High
Implementation –
- IAEA would assign someone to do the electronic work for material that is already prepared
- Assess the countries’ training needs according to a classification scheme for transport activities in the different countries
- Prepare set of training material according to the CA needs to build up on the material which is already prepared in modular approach

1.2) Finding: “e-schedules” have been prepared but not available on web yet.
Recommendation - Make “e-schedules” available on web and provide training
Priority – Moderate
1.3) Finding: Some MS have to offer opportunity to other MSs to observe transport inspections and other transport activities
Recommendation - Encourage more MS to offer opportunity to other MSs to observe transport inspections and other transport activities
Priority – Moderate
Implementation – Less developed MS should be given opportunities to visit more developed MB for transport operations inspections and this could be done within the same region or among networks of different regions.

1.4) Finding: IAEA is providing technical cooperation assistance to some regions
Recommendation - Work with TC to provide technical cooperation assistance to all countries in need
Priority – High

1.6) Finding: Regional networks are present, and some of them are developing targeted & training packages. The work of network is about how the cooperation and
4) coordination is carried out on regional and interregional scale.
Recommendation - Coordinate regional networks and develop targeted training packages: Encouragement of more regional networks according to needs of specific countries and provision of targeted training packages. Develop a simple assessment questionnaire (Addendum 2) (based on the contents RASIMS related section) for countries to specify the level of complexity of their transport related activities. IAEA assistance in developing websites for networks on IAEA website for virtual meetings.
Priority – High
Implementation –
• IAEA would develop an assessment questionnaire (Addendum 2)
• Based on the feedback from countries of different networks, classification of countries would be done according to level of transport activities they execute in their countries
• Countries of the same level, not necessarily in same region, could then coordinate to exchange expertise and assist each other to avoid redundant work in training packages for example.

7.2 Review of the President’s Findings and Recommendations from the 2012 follow-up TM in the area of Regional Considerations (Terms of Reference 5)

Finding: A draft of the "core model" has been prepared, but not yet distributed. The objective of this guidance is to assist MS to perform their transport operations in line with IAEA recommendations, and also to be able to prepare their own regulations for safe transport.
Recommendation - The "core model" should be revised and improved. Developing of model regulations is highly recommended as it is not in the capabilities of emerging countries to prepare their own based on IAEA publications
Priority – High
Implementation – Addendum 3
7.3 Update of Recommendation Table Provided in Addendum 1 (Topic Area 3)

**Finding:** Not all the regions are having regional pre-meetings before TRANSSC meetings, and, as a result, they are not in complete view of TRANSSC recommendations. On the other hand, their demands are not reaching TRANSSC due to the fact they do not have members represented or their members are not attending the TRANSSC meetings.

**Recommendation** - Encourage regional pre-meetings with the involvement of IAEA/TRANSSC representatives/members in regional pre-meetings

**Priority** – **Medium**

**Implementation** – Regional pre-meetings should be carried out one month prior to TRANSSC meeting with the participation of a TRANSSC member that could update them about TRANSSC meetings and also to submit their demands and remarks to TRANSSC meetings.

7.4 Update of Recommendation Table Provided (Topic Area 4)

**Finding:** Some MS are in need of assistance in developing their transport safety regulations

**Recommendation** - The TS-G-1.6 could serve as a tool to develop simpler model regulations

**Priority** – **Medium**

**Implementation** – Encourage (school of drafting) preparation of model regulations tailored according to the level of transport activities starting with the less developed - simple questionnaire for classifying the levels (Addendum 2).

7.5 Update of Recommendation Table Provided (Topic Area 5)

**Finding:** Deficiencies in training on transport operations in developing countries

**Recommendation** - Industry regional outreach can provide an important training tool for developing countries

**Priority** – **Low**

**Implementation** –

- Encourage the industry regional outreach to assist some countries in preparing their regulations (as a starting point in these countries that have no regulations)
- Encourage MS to participate through their regulatory bodies in practical training offered by other agencies as IATA, etc...

7.6 Update of Recommendation Table Provided (Topic Area 7)

**Finding:** Insufficiency in training programs as a whole on safe transport in some MS

**Recommendation** - Provide regional training courses

**Priority** – **Low**

**Implementation** – Provide more targeted regional training courses according to the needs of regions as requested
7.7 Update of Recommendation Table Provided  (Topic Area 9)

Finding: Regions as Pacific Islands, Latin America, Africa, Europe and Asia receive assistance from TC projects.
Recommendation - IAEA should keep supporting these regions and start supporting the others
Priority – High

8. CONCLUSION

"Regional Considerations" are of a big concern for emerging countries with newly established or no legislative system. These countries require assistance in developing regulations which preferably done by providing them with model regulations. There is also a need for raising the effectiveness of networks cooperation and coordination within the same region and among different regions. This report considers the steps that could be taken to accomplish this. The recommendations were kept as much as possible in line with the 2011 conference findings and other recommendations provided in the area. Other complementary recommendations made were, in most instances, essential suggestions to support the basic ones. The WG members concluded that the recommendations submitted would improve efficiency in the work of CAs to follow the guidance of IAEA.
## ADDENDUM 1: 2012 Recommendations Table

<table>
<thead>
<tr>
<th>Topic Area</th>
<th>Recommendations</th>
<th>Status</th>
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<th>Notes and/or Revised Recommendations</th>
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<tr>
<td><strong>Regional Considerations</strong></td>
<td>1) Continue transport safety work plan- Seven related tasks:</td>
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<tr>
<td></td>
<td>1. Provide updated training materials, including web availability</td>
<td>1. One course is available but not on web</td>
<td>H</td>
<td>1- Make updated training materials available on the web and develop other specific material according to CA needs</td>
</tr>
<tr>
<td></td>
<td>2. Make available and provide training on “e-schedules”</td>
<td>2. Not distributed yet</td>
<td>M</td>
<td>2- Make “e-schedules” available on web and provide training</td>
</tr>
<tr>
<td></td>
<td>3. Encourage MS to offer opportunity to other MSs to observe transport inspections and other transport activities such as package design reviews</td>
<td>3. Done in some cases</td>
<td>M</td>
<td>3- Encourage more MS to offer opportunity to other MSs to observe transport inspections and other transport activities</td>
</tr>
<tr>
<td></td>
<td>4. Provide technical cooperation assistance</td>
<td>4. Available but not for all</td>
<td>H</td>
<td>4- Work with TC to provide technical cooperation assistance to all countries in need</td>
</tr>
<tr>
<td></td>
<td>5. Hold denial of shipment regional workshop</td>
<td>5. NA</td>
<td>-</td>
<td>5- NA</td>
</tr>
<tr>
<td></td>
<td>6. Coordinate regional networks and develop targeted training packages</td>
<td>6. On going</td>
<td>H</td>
<td>6- Encouragement of more regional networks according to needs of specific countries and provision of targeted training packages. Develop a simple assessment questionnaire (based on the contents RASIMS related section) for countries to specify the level of complexity of their transport related activities. IAEA assistance in developing websites for</td>
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<tr>
<td>7. Provide transport safety film for training and public awareness</td>
<td>7. Done</td>
<td><strong>H</strong></td>
<td>7- Distribute the film(s) to all countries</td>
</tr>
<tr>
<td>2) Consider regional meeting of TRANSSC</td>
<td>Not accepted by TRANSSC</td>
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<tr>
<td>3) Consider regional pre-meetings before TRANSSC and regional feedback from TRANSSC meetings</td>
<td>Not Done</td>
<td><strong>M</strong></td>
<td>Encourage regional pre-meetings. Involvement of IAEA/TRANSSC representatives/members in regional pre-meetings</td>
</tr>
<tr>
<td>4) Consider review of TS-G-1.6 in developing simpler model regulations for Member States</td>
<td>Not done</td>
<td><strong>M</strong></td>
<td>Encourage (school of drafting) preparation of model regulations tailored according to the level of transport activities starting with the less developed (simple questionnaire for classifying the levels).</td>
</tr>
<tr>
<td>5) Industry regional outreach can provide an important training tool for developing countries</td>
<td>Not Done</td>
<td><strong>L</strong></td>
<td>Encourage the industry regional outreach to assist some countries in preparing their regulations (as a starting point in countries that have no regulations). Encourage MS to participate through their regulatory bodies in practical training offered by other agencies as IATA, etc...</td>
</tr>
<tr>
<td>6) Continue with ISC action plan via proposed new UN inter-agency committee</td>
<td>Ongoing w/IAG and IAEA has taken actions</td>
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<tr>
<td>7) Provide regional training courses</td>
<td>On going</td>
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<tr>
<td>Provide more targeted regional training courses according to the needs of regions as requested</td>
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<tr>
<td>8) Provide regional specific security training (e.g. uranium ore specific issues)</td>
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<tr>
<td>9) TC regional assistance projects should be supported</td>
<td>On-going in Pacific Islands, Latin America, Africa, Europe and Asia</td>
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<tr>
<td>Encourage support for TC regional projects on Transport</td>
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<tr>
<td>10) Efforts should be made to overcome barriers at the IAEA and elsewhere in creating joint safety and security networks and collaboration should continue to be encouraged</td>
<td>On going</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Efforts should be made to overcome barriers at the IAEA and elsewhere in creating joint safety and security networks and collaboration should continue to be encouraged</td>
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<tr>
<td>11) Consider use of industry information on best practices in IAEA transport security work (ensure separation of nuclear safety standards and nuclear security series documents from Nuclear Energy Series (NE) documents)</td>
<td>Not in scope of TM</td>
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<tr>
<td>12) Enhance regional network membership to assist in achieving international harmonization in the area of transport safety and security</td>
<td>Not in scope of TM</td>
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</tbody>
</table>
ADDENDUM 2: Assessment Questionnaire

- It is a one page, simple and comprehensive questionnaire
- It includes a list of statements where the MSs could mark what applies to their transport activities
- Statements could be based on previous detailed questionnaires as the TSA7, but with less details
- The contents would reflect the type of transport activities carried out in the country whether import/export of RAM, maintenance, manufacture or design of packages, transit, import or export of fissile materials
- Assessment should be carried out based on the feedback received from the MSs
- Classification of these countries could then be done on level basis which could be 3 or 5 levels
- Countries would be notified about the level of their activities and be made aware of countries with similar programs
- A stage two questionnaire could be prepared as to the expertise each country could deliver to country of the same level based on the status of legislative system in this country
- This questionnaire could serve as a tool in assessing the common interests of countries of the same region or from different regions and how they can cooperate and coordinate to benefit from each other. A direct advantage of such cooperation could be to avoid redundancy in preparation of different training packages which they can share among each other.
ADDENDUM 3: Core Model Modifications

The "core model" modifications were made to the last power point presentation provided which is entitled "CAs Activities March 15 REV 2.0". This file has two presentations. The modification done on the first one which is entitled "Addendum to Core Model for Regulatory Oversight of Transport of Radioactive Material" has been done for the content and structure in note format on the presentation itself and is being provided in Addendum 4. Whereas the modifications suggested for the second presentation entitled "Regional Workshop on the Establishment of Compliance Assurance Regime for Transport Safety of Radioactive Material" are listed as follows referring to the section numbers in some cases and kept general in others.

Modifications Suggested:

1) Include in core model countries that do not have fissile material, but carries out transit operations for such materials

2) Provide training for technical aspects of transport operations such as packaging in countries where the CA provides such services

3) Include in the definition of the "core model" that it is a guidance

4) Instead of classifying countries according to their uses, classify them according to their transport activities as well

5) Consider sensitive operations in critical situations where transparency could lead to major accidents that could compromise safety

6) In the definition of "Transport" referred to in (SSR-6 para 106), include "packaging" just before "preparation"

7) in b.1, include bullet v as follows:
   
   v. Is there a written agreement with the supplier for a return of the RAM/other special arrangements for historical sources?

8) in b.2, include bullet v as follows:

   v. Carry out inspection for the validation of information provided

9) in b.3, include bullet iii as follows:

   iii. Keep a registry for inventory and maintain it periodically

10) in c, and whenever the three transport operations are mentioned, add "domestic transport"
11) in c.1, include bullet v as follows:
   
v: Adopt mechanism for approval of packages

12) in c.2, add the following:
   
   • Competence of workers
   • Material safety datasheet (MSDS)

13) in e.3, add the following:
   
   • Monitoring of personnel

14) in g.1, note that first responders are not limited to the three mentioned organizations, so should add etc...

15) in g.1, provide specialized training for carrying out some transport activities for CA in MS where the CA executes such services

16) in g.1, provide training for involved personnel in the transport operation where these persons are not classified as radiation workers e.g. drivers, etc...

17) in h, include national level exercises

18) in i, include "exercises on different scenarios of transport operations"

19) Add to strategy p. 89, coordinate with regional partners towards implementing the strategy

20) Consider translation of the core model once complete into different languages
ADDENDUM 4: Modifications for "Regional Workshop on the Establishment of Compliance Assurance Regime for Transport Safety of Radioactive Material"

Please refer to powerpoint presentation provided under the file name "Core Model Mod by WG4"
Annex 9

Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 Conference on the Safe and Secure Transport of Radioactive Material

Presentation on Working Group Chair’s Review of Common Recommendations
Third Technical Meeting on Integration into the Transport Safety Standards of the Results of the 2011 International Conference on the Safe and Secure Transport of Radioactive Material

TM-49609

Room C0213
IAEA Headquarters, Vienna
23 to 27 March 2015

Priority Common Recommendations

Prepared by:

Guy Lourtie
Ingo Reiche
Jeff Ramsay
Muzna Assi
Paul Hinrichsen
Priority Common Recommendations

As an initiative by the chair of working group 4, an ad-hoc meeting took place to discuss high priority recommendations that need immediate action due to its safety significance to some member states.

The participants discussed and agreed on the following table which presents these recommendations with the timeframes indicated. However, note that these do not include all the recommendations, even those with high priority, that were listed in groups reports.

They also agreed to present this for feedback from all the TM participants and the Secretariat at the closure meeting of the TM.

The participants all agreed that a technical/consultancy meeting is required to address these issues within the IAEA framework.
<table>
<thead>
<tr>
<th>Topic Area</th>
<th>Recommendations</th>
<th>Status</th>
<th>Notes /Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Regulations</td>
<td>A Tecdoc of Model regulations for emerging MS with no legislative system should be tailored to meet their needs by the school of drafting</td>
<td>Not Done</td>
<td>Establish Model Regulations for Safe Transport Completion/ Q1 2016</td>
</tr>
<tr>
<td>Core Model</td>
<td>Serving as a guidance that &quot;introduces key practical elements which provide the starting point of regulatory control for the transport of radioactive material&quot;, the core model, with some modifications, could be a tool for transport operations especially for countries having transport operations and no regulations.</td>
<td>Under Revision</td>
<td>Revise and improve the core model in order to distribute it to emerging countries with new or no legislative systems Completion/ Q4 2015</td>
</tr>
<tr>
<td>Regional Networks</td>
<td>More encouragement for coordination among networks is recommended. Also homogeneity among countries of different networks could bring them together for the exchange of experience especially when they have similar programs but different regulatory capabilities. (Assessment Questionnaire for classification could be a starting point; develop website)</td>
<td>On going</td>
<td>Assessment Questionnaire and Classification Completion/ Q3 2015 Development of Websites Completion/Q4 2015</td>
</tr>
<tr>
<td>Training</td>
<td>A map for different training packages is needed to identify not only the most urgently needed training, but also the timeframe which specifies when these courses could be prepared.</td>
<td>On going</td>
<td>Training Package Modules Definition Completion/Q1 2016</td>
</tr>
<tr>
<td>Revision of Documents</td>
<td>Revision of TS-G-1.2</td>
<td>On going</td>
<td>Revise the document according to the proposal of WG 3 Completion/Q2 2016</td>
</tr>
<tr>
<td>Topic Area</td>
<td>Recommendations</td>
<td>Status</td>
<td>Notes /Time frame</td>
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<tr>
<td>Revision of Document</td>
<td>Revision of TS-G-1.3</td>
<td>On going</td>
<td>Needs to be brought in line with GSR 3</td>
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<td>Completion/Q2 2016</td>
</tr>
<tr>
<td>Technical/Consultancy Meeting</td>
<td>Technical Meeting to discuss the following topics:</td>
<td>To be done</td>
<td>Suggested Timeframe</td>
</tr>
<tr>
<td></td>
<td>• Training packages modules</td>
<td></td>
<td>One week in Q4/2015 or Q1/2016</td>
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<td>• Model Regulations for Emerging Countries</td>
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<td>• Core Model</td>
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<td></td>
<td>• Regional Networks Sustainability</td>
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