EMERGENCY PREPAREDNESS AND RESPONSE STANDARDS COMMITTEE
(EPReSC)

Report of the Eighth Meeting of EPReSC

25 June to 27 June 2019

International Atomic Energy Agency
Vienna

Approved by the Ninth Meeting of EPReSC on XX-12-2019
INTRODUCTION

The eighth meeting of the Emergency Preparedness and Response Standards Committee (EPReSC) was conducted from 25 June to 27 June 2019 in Vienna. It was attended by 36 representatives from 30 Member States and 4 representatives from 4 International Organizations (IOs). Additionally, 4 representatives from Member States attended through WebEx service.

EP1: GENERAL

EP1.1: Opening remarks

Ms. Buglova, Head of the Incident and Emergency Centre (IEC), welcomed the attendees. She highlighted the importance of the points to be discussed in the Agenda including discussion of the potential future safety standards within the framework of the roadmap and the recent report on the attributability of radiation exposure effects. Ms. Buglova stressed that the outcome of both these discussions would be an important reference for the IEC.

EP1.2: EPReSC Chair remarks

In her opening remarks, Ms. Heinrich welcomed both the new and returning members to this meeting. She spoke about the great deal of work accomplished by the Committee since its creation in 2015. This work would not be possible without the diligent work of EPReSC members before, during, and after the meetings. One highlight for this Committee meeting is the discussion and revision of the roadmap. Ms. Heinrich stated that we are continuing to reap the benefits from the International Symposium on Communicating Nuclear and Radiological Emergencies to the Public, which took place between 1 and 5 October of 2018. Looking to the agenda for the week, the Committee will have its first joint session with the Radiation Safety Standards Committee (RASSC) and presentations on the national EPR systems of both Canada and the United States of America (USA). Regarding draft Safety Standards (SS) to be discussed in EPReSC-8 for approval, Ms. Heinrich recalled that EPReSC members are empowered to request clarification on resolution of the comments they have raised to ensure that EPR issues are dealt with acceptably.

EP1.3: Logistics and administration

Mr. De la Vega, EPReSC Scientific Secretary, presented the logistics and administrative arrangements including the RASSC meeting in the afternoon.

EP1.4: Adoption of the Agenda of the eighth EPReSC meeting
A review of the Agenda yielded no questions or comments. Ms. Heinrich noted that there would be flexibility in the order of the Agenda items based off availability of presenters. The Agenda was approved without modification.

**EP1.5: Approval of the Report of the seventh EPReSC meeting**

The draft report of the last EPReSC-7 meeting was presented for approval, comments to the initial draft which was posted were received from EPReSC representatives of Australia and WNTI, accepted and included in this draft EPReSC-7 Report. No additional comments were received, and the EPReSC-7 Report was approved.

**EP1.6: Update on Activities stemming from the 45th meeting of the CSS**

This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER2.1

**EP1.7: Update on the NSS-OUI IT Platform**

This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER2.2.

**EP2: REVIEW OF IAEA SAFETY STANDARDS (Under the lead of other SSCs)**

**EP2.1: DS494 – Protection against Internal Hazards in the Design of Nuclear Power Plants**

Mr. Amri delivered a presentation on this draft safety guide (SG), which was presented at Step 11. He summarized the reasons for the revision of the existing SG based on the publication of the new SSR-2/1 (Rev.1) and the plan to merge the four existing safety guides on internal and external hazards to two safety guides on each of these topics (internal and external hazards). He explained the comments received from the MSs, ENISS, and WNA have been resolved and that the most recent draft had one comment from EPReSC, which was rejected because of the links in place between the document and GSR Part 7.

Ms. Heinrich clarified that the document had been submitted for approval before technical editing. The presenter confirmed this.

ENISS commented that the Document Preparation Profile (DPP) was presented before EPReSC was created, and the creation of EPReSC stemmed from dealing with Emergency Preparedness and Response (EPR) across the Agency activities. He continued that the safety standards are to prevent accidents from happening, and that the emergency plans created address the potential consequences. For emergency planning, the hazard analysis provides a basis for what we should cover in emergency arrangements. The role of EPReSC is to review the entirety of the process for a document. He wondered whether a better method exists for tracking comments and
changes which are made at each stage of the process of each Safety Standards. If we
track comments from the beginning, when the document comes to Step 11, we have
a detailed list of them from DPP to completion.

ENISS clarified that these suggestions be used internally within EPreSC for future
documents where it can be resolved at the DPP stage. Ms. Heinrich responded that
the number of documents which will come to EPreSC at later steps in the process is
continually decreasing.

Belgium asked about the difference between Operating Procedures and Severe
Accident Management Programmes. This was explained by Dominique Delattre.

Australia asked about the changes made in paragraph 6.97. The presenter clarified
this point.

Belgium asked about the possibility of adding GSR Part 7 to the list of reference
documentation. Mr. Amri replied that including this reference changes the scope of
the document.

United Arab Emirates asked about the expected changes taking places in the technical
editing process that the draft should undergo. Mr. Amri clarified that no relevant
changes were expected to take place in this process.

Ms. Heinrich stated that the EPreSC committee would get back to Mr. Amri after
further discussion on the use of a GSR Part 7 footnote.

Following the end of the presentation, text was suggested jointly by Belgium and
Australia that could be added to this revised document. This text was discussed by
Ms. Heinrich and Mr. de La Vega in a subsequent parallel meeting with
representatives of NUSSC and NUSSC representatives and Division of Nuclear
Installations Safety (NSNI), namely: the Technical Officer Mr. Amri, Section Head of
the NSNI – Safety Assessment Section Ms. Cornelia Spitzer, NUSSC Chair, Mr.Phil
Webster, NUSSC Scientific Secretary, Mr. Miroslav Svab and Director of, Mr. Greg
Renztkowski. Based on the rationale explained below, these comments were
discussed and decided that Mr. Spitzer would explain to EPreSC the rationale for not
being included.

Ms. Spitzer came before EPreSC with the NUSSC thoughts on the addition of these
comments. She commented that Safety guides relating to safety features, which when
they fail may lead to emergency response. When we propose including reference to
EPR in this document on internal hazards, inconsistency arises as no recently
published Nuclear Power Plants’ design safety guide includes this reference. She
indicated that if EPreSC insists on having text inserted into the document, then it will
have to send it back to committee and to Member States.
ENISS, asked that if we don’t add EPR now, it should be explained when we can we add it. If we state the integration into documents in the future, then it’s fine. Ms. Heinrich replied that it should be acknowledged that inserting this comment into this document is a bit late, although we are after the DPP, we did have a chance at Step 7 to submit these comments. She went on that there are currently three safety guides at Step 5 which this would be our next opportunity to have an impact on design documents.

Canada commented that the reasonable approach is that we have to have an entry point into the process. Not for this document, but for the next document in Step 5. The definition of hazard assessment that they are using in their document is not consistent with the Safety Glossary. Ms. Heinrich replied that different definition of the term hazard assessment was an issue and should be noted for future discussions.

ENISS suggested that this is a good opportunity to talk about the direct interface between design and EPR as well as a bit of very real integration between the two topics. Ms. Heinrich replied that these two topics are not in full integration, and we can improve the cross-referencing and understanding between these groups so EPR information is pointed to in these design safety guides at earlier stages.

After this discussion, it was agreed not to include the above referred comments in the document and APPROVE the draft for submission to the Commission of Safety Standards (CSS) for endorsement.


This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER3.2

EPReSC APPROVED the draft for submission for comments to MS

**EP2.3: DS513 DPP – Leadership, Management and Culture for Safety**

This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER4.1

EPReSC APPROVED the draft DPP for submission to CSS for endorsement

**EP2.4: DS521 DPP – Radiation Protection Programmes for the Transport of Radioactive Material (Revision of TS-G-1.3)**

This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER4.2
EPReSC REJECTED the proposed DPP, which should be revised for submission to next round of SSC meetings for approval

EP2.5: DS524 DPP – Radiation Protection Aspects of Design for NPPs (Revision of NS-G-1.3)"

This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER4.3

EPReSC APPROVED the draft DPP for submission to CSS for endorsement


Mr. Reber gave a presentation on this draft DPP, which is a revision of TS-G-1.5 to account for the recent changes in different requirements applicable (namely SSR-6) and the consideration of the safety/security interface. He summarized the planned development of the revision and its scope.

Ms. Heinrich expressed that the DPP was coming to the EPReSC Committee after it had been approved by the CSS, without being submitted prior for EPReSC approval. Including this in the Agenda of EPReSC was a non-standard procedure to catch up on the missed step in the approval path of the document.

Ms. Heinrich clarified that EPReSC would have an opportunity to make comments and proposed two weeks under a silence procedure to do so on the DPP. After the two weeks, if no comments are received then the draft DPP would be accepted without changes, should comments be raised the Technical Officer of the DPP should address these comments as appropriate. Canada asked if Compliance Assurance is the same as "Radiation Protection Programme"? Mr. Reber answered negatively.

EP3: REVIEW OF AND INFORMATION ON IAEA SAFETY STANDARDS (Under the lead of EPReSC)

EP3.1: DS469 – Preparedness and Response for an Emergency during the Transport of Radioactive Material

This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER3.1

In addition to this, since the draft was pending of technical editing, EPReSC decided that after this editing process was completed, the draft would be posted for a silence procedure in order EPReSC members be able to check the final version to be submitted to CSS.

With this clarification, EPReSC APPROVED the draft for submission to CSS for endorsement.
EP4: REVIEW OF AND INFORMATION ON DRAFT NUCLEAR SECURITY GUIDANCE DOCUMENTS


Mr. Horvath delivered a presentation on this draft Nuclear Security document at Step 11, summarizing the content, drafting process, and comment resolutions. The scope of the document was extended to include insider threats, computer related threats, and blended attacks. Three comments were received from EPReSC concerning the Emergency Response Organization and GSR Part 7 quotations and were accepted.

United Arab Emirate (UAE) asked about the difference between the emergency plan and the contingency plan. In addition, he asked about how was insured that Emergency Action Levels will drive the emergency response and whether these plans would work together in a consistent fashion. Mr. Horvath replied that harmonizing the response to both security threats and emergencies was the goal, with the understanding that security has its own role to play. There were multiple references to response organization in the document, which Mr. Horvath stated only relates to the security side of the response.

Since the definition of the term Emergency Response Organization could be not well understood in the context of the draft, Mr. de La Vega suggested a footnote to address which emergency response organization is being referenced and clarifying the meaning of "Emergency Response Organization" according to GSR Part 7.

The draft was CLEARED by EPReSC for submission to DDG-NS for approval.

EP5: EPR Series AND OTHER PUBLICATIONS UNDER DEVELOPMENT

EP5.1: Revision of EPR Exercise (2005)

Mr. Daniels gave a presentation summarizing the objective, scope, content, and schedule for this EPR series document. This document will focus on the experience gained and changes in resources used during exercises to test emergency response plans, since the current document was published.

Finland asked on whether training materials would be developed. Mr. Daniels answered positively, indicating that a pilot training event on the new document will be organized in 2020.

"Iran (through WebeX) indicated that in EPR-IEMCOMM 2012, drill and exercise are different but in EPR-EXERCISE 2005, drill is a type of exercise and asked about how this matter will be dealt with in the revision the about the difference between exercises and drills. Also Iran asked about the reason not considering response in the
title of this document. Mr. Daniels clarified that normally drills have limited scope and exercises are testing the plans in a more comprehensive fashion. Regarding second question, Mr. Daniels mentioned response can be considered in the title too. Mr. De la Vega clarified as well that drills are also addressed in the document."

France asked about exercises on security related emergencies and whether a specific chapter will be devoted. Mr. Daniels replied that this type of exercise would be addressed, but not necessarily in a separate chapter, in order to ensure proper integration of security related topics.

Japan asked about availability of training materials. Mr. Daniels answered that once published they would be publicly available.

Japan asked as well about the support to train appropriate trainers to teach the materials. Mr. Daniels replied that a train the trainers’ approach would be considered.

UK indicated that GS-G-2.1, currently being revised, will provide some guidance on this topic, but it won’t be finished by the time the EPR Series is published. Mr. Daniels indicated that the developments made in GS-G-2.1 would be taken into account, but in any case, the document was about more detailed guidance than is normally provided in SS.

ENISS asked about specific aspects of the content of the document. Mr. Daniels clarified those points.

Russian Federation asked about the Exercise Program required by GSR Part 7 and how this was going to be addressed by the document. Mr. Daniels explained that this was considered already in the first CS and an Appendix including a Sample Exercise Program was under development.

New Zealand asked about the possible use of radioactive sources in exercises. Mr. Daniels replied that this point would be addressed in the document.

United Arab Emirates asked about evaluation of exercises and in particular about how the Manual for First Responders included a chapter on evaluation of exercises and whether consistency would be ensured between both documents. Mr. Daniels clarified that the document would provide guidance on this point ensuring this consistency but taking into account that it was about a broader type of exercises than those addressed by the Manual for First Responders.

NEA asked about how exercises on transboundary emergencies would be considered. Mr. Daniels replied that at this stage this topic was not expected to be dealt with in detail.
Ms. Heinrich asked about next CS for the development of the document. Mr. Daniels provided the dates and Mr. De la Vega clarified that any interested MS was entitled to appoint cost-free experts for this CS.


Ms. Assi delivered a presentation on this document, with the scope, methodology for the revision, and the special considerations. These special considerations include coordination with other NS divisions on areas of common concern, especially nuclear security.

Slovakia asked if EPR Method would be updated to include protection strategy, since as of now, it only includes the basic structure for the National Emergency Plan. Ms. Assi replied that this aspect will be considered for this document.

Mr. de La Vega stated that the interface between nuclear safety and security would be handled in this document. In addition, there is still a possibility for having a joint document with nuclear security. The tentative planned start date for the consultancies is quarter 1 of 2020.

**EP5.3: Revision of EPR Medical (2005)**

Mr. de La Vega delivered a presentation on behalf of Mr. Herrera Reyes. This presentation provided an update on multiple ongoing publications including: EPR Medical, EPR Medical Follow-up, Radiological Incidents in Chilca and Ventanilla. In addition to these documents, there was a focus on the documents for Medical Physicists to allow for them to participate in support to Medical Response. Most of these documents are co-sponsored by different international and professional organizations and are either being printed or in the submission process for the Publications committee.

Ms. Heinrich appreciated the outreach to the medical physicists’ group and the effort to bring them in to the preparedness and response stages with their valuable expertise.

Egypt asked if the EPR Medical document will provide guidance on triage for medical patients, including how to manage and treat them, and about whether it will provide more guidance on internally contaminated individuals. The presenter indicated that for internal contamination, there is an EPR Series document published in 2018. He indicated that he was not in a position to answer the question about triage. Iran (through WebEX) clarified that the EPR Medical document covers dose assessment and treatment, but not detailed guidance on triage and internal contamination.

New Zealand asked if the IAEA had reached out to medical professionals to ensure they are aware of these documents. The presenter clarified that these documents were expected to be cosponsored by WHO and PAHO. New Zealand asked about the
possibility of joint training between the WHO and IAEA with the same materials. The presenter clarified that this was not currently being considered, but it would be a good idea for future cooperation with WHO and PAHO.

Belgium asked if the concerns of medical practitioners on working with contaminated individuals would be covered. Mr. de La Vega replied that this information on this topic was included and agreed on the importance of this topic.

ENISS asked if other international organizations would be responsible for medical EPR. Ms. Heinrich replied that EPR is a cross-cutting field. Mr. de La Vega referred to the mandate of the IEC which is to cover topics of concern which arise as part of nuclear or radiological emergencies.

Finland asked about knowing the targeted readers for these EPR documents and whether this could be extended to those experts in the field who weren’t aware of this specific EPR medical guidance. The presenter indicated that, in general, the target audience for this document includes the professionals involved in medical response to nuclear or radiological emergencies. Regarding the second part of the question, the presenter acknowledged that it was a very important point but currently there are no clear plans on how to address this issue.

Australia asked how the EPR series documents could be used with the WHO’s Radiation Emergency Medical Preparedness and Assistance Network (REMPAN). The presenter replied clarifying that, since most of these documents are sponsored by WHO, the answer should be affirmative.

**EP5.4: Revision of EPR First Responders (2006)**

Ms. Arnswald presented on the ongoing work to complete the revision of the EPR manual for First Responders including the scope, activities which have taken place since the last presentation to EPReSC, and the resolution of additional comments. This included specifying upcoming events and consultancies in relation to the newly developed training materials and also about the process to address the last comments received from different stakeholders.

Sweden asked where these additional comments were received from. Ms. Arnswald replied these additional comments came from the 3rd consultancy for the document, where new experts were selected. In addition, the partnership with CTIF, WHO, and Red Cross had yielded a few new comments.

Israel asked if the draft was ready to be published and if so, if it could be disclosed. Ms. Arnswald replied that it may be possible to be shared with interested stakeholders before it goes forward for publication, but after the final internal review was completed.
United Arab Emirates asked if there was security guidance for first responders in this manual, specifically any updates on the forensic action management team. Ms. Arnswald replied that the materials have been updated with insights from nuclear security on this topic.

**EP5.5: New EPR Series “Communication with the Public in a Nuclear or Radiological Emergency” and “Method for Developing a Communication Strategy and Plan for a Nuclear or Radiological Emergency”**

Ms. Harvey presented on the review and revision of these two documents and how they will support the implementation of the new Safety Guide DS475 (designated as GSG-14). This work incorporates best practices in this rapidly developing communication field and addresses outcomes from the International Symposium on Communicating Nuclear and Radiological Emergencies to the Public held in October 2018. The expected timeline for submission for publication of these documents is Q1 2020. Ms. Harvey summarized the proposed structure, including the extensive action guides, and the creation of a separate more function-based practitioner manual.

Israel asked if plain language would be included in this document as a topic. Ms. Harvey specified that the guidance may not be the same as in the briefing package or other materials, but that the infographics can be used between both documents for improved understanding.

Egypt asked if public awareness about background and natural ionizing radiation is included in the document. Ms. Harvey listed the topics including change of perception towards the emergency and different possible channels for reaching the audience would be covered as well as other topics.

**EP5.6: Update on Coordinated Research Project (CRP) on Criteria Approaches, Criteria and Methodologies for defining Emergency Planning Zone (EPZs) for Small Modular Reactors (I3 1029)**

Mr. Vilar Welter presented on the IAEA Coordinated Research Activities (CRAs), which will be the accumulation of information from 10-15 research institutions over a three to five-year period. This new CRP would focus on EPZ’s and Distances for Small Modular Reactors (SMRs). There are some challenges in performing this work, which Mr. Vilar Welter depicted in his presentation. The end goal is to have any documents which come out of the work fit into the IAEA Safety Standards Approach, being technology neutral to the extent possible, and based on a graded approach.

New Zealand asked what the funding was like for these CRP’s for these 10-15 research institutes for 3-5 years. Mr. Vilar Welter responded that the coordinated research activities are implemented and funded by the Member States. Fund from the IAEA only cover the limited participation of certain individuals from entities belonging to countries in the Technical Cooperation Programme, after applying for these grants.
The primary goal of CRPs is to coordinate existing research on topics of common interest, but not create new research.

Iran asked how events of low probabilities influences the design of an EPZ or distance. Mr. Vilar Welter replied that within the IAEA standards, events of low-probability must be considered in the hazard assessment.

United Kingdom asked about the placement of the TECDOC based on findings from this research, since GSR Part 7 is technology neutral, while GS-G-2.1 suggests specific distances Mr. Vilar Welter replied that it is important to note the hierarchal structure of the standards. The TECDOC or EPR series document that will be published would not be a consensus-based document. This is a technical topic for which no clear consensus exists to date, and that’s why it is not developed in the frame of SSs. However, in this case, specific guidance has been requested by a number of Member States.

Finland asked if an EPR or TECDOC would be proposed while the research was ongoing and when they can expect publication. Finland is very interested in the CRP. Mr. de La Vega replied that the project should have a preliminary document, table of contents, and DPP before the end of the CRP. Member States will share results within the frame of the CRP and based on these results it is planned to have a preliminary document by the end of 2021.

Japan asked about the plans to revise GS-G-2.1, as the current version suggests sizes for EPZ/D, which may be affected by the outcome of the TECDOC or EPR series document. Mr. Vilar Welter replied that since the findings of the CRP won’t dictate what the Member States would agree to in terms of EPZ/D, this document isn’t expected to be used as an input for GSG-2.1. Mr. de La Vega provided information that the roadmap of EPResC priorities would help specify the planned placement in the hierarchy of documents and timing of this document.

ENISS asked if EPR should be considered a design issue. There exists an idea to build a nuclear facility with no emergency planning or EPZ at all, as EPR has been considered in the design and security has been considered in the level 5 of defense in depth. Mr. Vilar Welter replied that EPR deals with events beyond design, notwithstanding the fact that design features may influence EPR arrangements. Mr. de La Vega added that a Technical Meeting (Next Generation Reactors and EPR) to
further dig on these issues was scheduled for 2020, where these topics could be further discussed.


Mr. Vilar Welter presented on this topic, which encompassed the scope and expected outcomes from this CRP. As a reference to underline the importance of the topic, he referred to GSR Part 7, para. 6.20 and 6.21 of Requirement 23. Member States have commonly used these tools in the preparedness stage as part of hazard assessment and arrangement planning. Use of these tools during the response stage has varied among Member States, especially when considering the limitations of such tools. The Project at present was at the proposal stage, pending of being approved by the IAEA Committee on Coordinated Research Activities (CCRA). The objectives include identifying limitations of these models, an understanding of strengths and weaknesses of these tools, and the possible improvement of their use at both the preparedness phase and response stage. To make sure these objectives are met, multiple outputs are specified including an annual report of the CRP. Agencies and entities involving in research from all Member States are welcome to participate in this CRP. Some States affected by a nuclear or radiological emergency will be kindly requested to provide real data for benchmark analysis of different dose projects tools.

Mr. de La Vega clarified that the proposed plan had been recently approved by the Coordination Committee on Research Activities (CCRA).

Australia asked for clarification on the use of these tools during the response stage. The IEC has traditionally said no to using these tools during the response stage. Mr. Vilar Welter replied that the IEC does not recommend use of tools which haven’t been sufficiently understood during the response. For example, during the urgent response phase, these tools may be used if it doesn’t slow the use of urgent protective actions. Using these tools later in the response is feasible, especially when comparing computation results with monitoring results. Mr. Vilar Welter followed that proceeding forward with an open-mind was paramount in this CRP.

Japan asked about the Agencies long history of this kind of research after Chernobyl, including the BIOsphere Modelling and ASSessment (BIOMASS) Programme. He suggested clarifying the scope and purpose of the research on these tools. Mr. Vilar Welter replied that some words in the description of the CRP could sometimes be understood in different ways, i.e., “model” is an ambiguous term, but these comments will be considered for clarification purposes.

Canada asked if the emergency management organizations would be involved, or it would simply be the research institutions. Mr. Vilar Welter replied that the goal of the CRP includes work for both technical institutes and emergency management organizations. Mr. de La Vega clarified that the target of this CRP is a broad range of
stakeholders, and that organizations interested in specific pieces of information to
include in this CRP are welcome to participate the research activities.

United Kingdom asked about their new national regulations and the usability of them
for the Agency in pursuing for this CRP Mr. Vilar Welter welcomed any specific group
or institution in each country interested in helping the project.

Iran commented (through WebEX) that there were some risks associated with using
these tools in the urgent response phases. Mr. Vilar Welter agreed that using these
tools within the emergency plan, can lead to issues due to lack of information. Iran
asked if these tools are useful in evolving accidents. Mr. Vilar Welter replied that an
evolving accident has changing information that may make more complex the
adequate use of the tools. Iran asked when the first meeting will be called. Mr. Vilar
Welter replied that that CRP needs to be formally announced, and afterwards the first
Research Coordination Meeting (CRM) will be convened at the beginning of 2020. Mr.
de La Vega added that outreach activities for this CRM will begin soon.

France asked about the expected kind of tools which Member States will bring to use
in this research project and whether the benchmark exercise could result in “ranking”
the codes. Mr. Vilar Welter replied that Member States will bring their own
participating research institutions and codes to the CRP, with the scope they decide.
He also commented that without enough organizations participating in this
benchmark, the objective of the exercise, which is learning more about the specific
features of the codes and their better use, may not be doable. In closing, at no point
will the IAEA state one tool is superior to others.

Australia asked about other groups within the IAEA working on similar dose
projection tools. Mr. Vilar Welter explained that in addition to the IEC the
participation of other divisions of the Department was expected.

Switzerland asked about the development of recommendations based off the specific
objectives. Types of limits may intrinsically exist for each tool, making them
untestable using benchmarks. Comparing specific tools may leave some tools out
which are used in specific countries. Mr. Vilar Welter replied that the benchmarking
would not be one-member state alone performing this, rather this should be agreed
to by all participants. Mr. de La Vega clarified that every institution and member state
is free to coordinate their own research, but in the Project, it’s expected that some
joint activities will be discussed and hopefully agreed to.

Germany asked about the concept of differences in source terms. Mr. Vilar Welter
replied that the outcome of the discussions, uncertainties, and source term specifics
will be important to this research.

France commented that the Fast-Nuclear Emergency Tools (FASTNET) program
could be connected to these outcomes. Mr. Vilar Welter noted the suggestion.
**EP5.8: New Coordinated Research Project on Effective Emergency Communication in a Misinformation Environment**

Mr. Kaiser presented on the advances of machine learning, and the impact this had on journalism, including the selection of news for public users by algorithms or robots. This can lead to malicious cases, where the Artificial Intelligence (AI) selects misinformation. In a nuclear emergency this can lead to misleading the public about protective actions and about the evolution of the emergency. The CRP seeks to perform a risk assessment on this topic to strengthen EPR capacity in addressing malicious use of AI. The CRP progress is ongoing with the next steps including conclusion of the researcher agreements and development of the workplan.

United Arab Emirates asked about sharing of the developed plan and asked about the use of Meltwater services as part of this CRP. Mr. Kaiser replied that Meltwater is a method of looking for key words from known publishers. While Meltwater works, AI is better at finding content that is false, and following this content around the internet.

Mr. Blackburn asked about the objectives of the CRP and wondered whether it’s to find strategies for combatting misinformation or identifying misinformation. Mr. Kaiser specified that all options are being considered, as long as they fit into the ethical guidelines.

**EP5.9: Updates on the 2020 Revision of the INES Manual**

Mr. Kaiser delivered a presentation on this agenda item, which also had been presented to EPReSC-7. He summarized the objective and scope of the revision, focused on incorporation of changes based on the experience gained and feedback received since 2008, and outlined the different steps taken to date. A total of 324 comments had been received from National INES Coordinators of 19 MS, the INES Advisory Committee, and ENISS. After fully addressing these comments, the document underwent a blind comparison test, and in 97% of cases there was good agreement between the ranking stemming from INES 2008 and 2019 Manuals. The new revision is in the publication process, with plans to be revised by the Publication Committee in this year, and then submitted for editing, layout & printing.

Poland asked if it was possible to provide INES Officers with the current revision, and the comment resolution table. Mr. Kaiser replied he would be happy to share it.

**EP6: STRATEGIC ISSUES AND OTHER TOPICS OF INTEREST**

**EP6.1: Proposed revision of EPReSC Mid-Term Plans for Development of Safety Standards and Guidance in EPR (roadmap)**

Mr. de La Vega presented on the proposed revision of the EPReSC Roadmap, whose last update took place in November 2017. In this presentation he outlined the current SS status for EPR and proposed new SGs as well as the priorities for the upcoming
years of work of EPReSC. He provided an update of the EPR series and SGs being developed at different stages. He also raised some potential topics for new SGs to be developed under the lead of EPReSC. He clarified that with the current workforce, the Secretariat can support development of 3-4 Safety Guides simultaneously. He concluded by suggesting the creation of a working group in EPReSC, interacting by email, to discuss and make a final proposal for EPReSC approval of the revised road map.

Ms. Heinrich asked EPReSC if we should go forward and approve this plan. It will be important that 4 documents can undergo creation simultaneously. It is important to note the SPESS process, and the 12-13-year timeline proposed for revising each document.

United Kingdom asked about the survey this summer and whether it would be for GSG-2 or for the roadmap as a whole. Mr. de La Vega replied the work on GSG-2 will commence this summer starting by the submission of a survey to EPReSC members. Based on the information collected from this survey, then suggested criteria for the revision will be presented for discussion. United Kingdom asked if similar surveys for future areas of work were going to come forward and what the basis for the development is. Mr. de La Vega indicated that the criteria is mainly the need for additional guidance and the likelihood of reaching consensus in developing guidance on different topics. This should be substantiated in EPReSC-9 during the discussion of the proposal made by the working group. United Kingdom responded they would be happy to work with the Secretariat on the creation of this proposal and the process associated with the roadmap. Mr. de La Vega and Ms. Heinrich appreciated this commitment.

Australia emphasized that hazard assessment drives the planning basis and added that there is a gap on guidance for hazard assessments and how to do them for every Emergency Preparedness Category (EPC), as required in GSR Part 7. He asked if possible to provide the aspects that the Member States need since the hazard assessments may be complex. Mr. de La Vega agreed on that view and clarified that, as an example, if we are talking about hazard assessments for Nuclear Power Plants, there may be some aspects that need to be clarified, even though there are some consolidated agreements that leads to the fact that EPR arrangements for these facilities are quite reasonably similar in most of the countries. Hence, development of a Safety Guide for EPCI could be affordable based on this consensus. For other EPCs the situation could be different.

Canada asked how the distinction is made between making an EPR series document versus a Safety Guide. Mr. de La Vega replied that there are no formulas for deciding which topic should be addressed in a safety standard and which in technical guidance (EPR Series documents). One important point to consider is the maturity of the topic for reaching a consensus, which is the overriding feature of safety standards. As an example, he referred to the discussing on development of guidance on the Protection Strategy that took place in EPReSC a few years ago. There were suggestions on having
the protection strategy guidance be developed as a safety guide, but finally it was agreed that the topic was not mature enough for reaching consensus and the guidance is being developed in an EPR Series document. He stressed that EPR series documents don’t require consensus and that this allows for shorter time of completion as well, since they are not subject to the complex SPRESS process. Deciding that consensus can or cannot be made, is an important point in the definition of the type of document.

Australia asked about whether nuclear security events will be considered in the guidance under development of the Protection Strategy. Mr. de La Vega replied that hazard assessments provide the basis for protection strategy and in the hazard assessment nuclear security events should be considered. As for nuclear security related topics, we should recognize the room for improvement in the relationship between Nuclear Security and EPR.

Slovakia raised support for the SGs on basic requirements for EPC Category 1 nuclear installations and the emergency management system. He proposed a focus on the practical aspects of emergency management and the update of existing documentation. He went on to say that standardization of international assistance could be another useful topic for the development of a safety guide. Mr. de La Vega replied that assistance would be a good concept, as all the events in assistance have been compiled and consensus could be reached. Regarding the possible emergency management SG, GSR Part 2 can be considered in addition to GSR Part 7. The goal of the SG would be focused on or practical and useful guidance.

Ms. Heinrich brought attention to the proposed safety guide on leadership and culture for safety shown previously in the agenda.

Iran (via WebEX) asked why there was a decision to have no safety guide for requirement 5, protection strategy. Iran also offered to join the working group for the EPReSC roadmap. Mr. de La Vega replied that it was a decision based on a discussion years ago and this could be reverted in the future. As it pertains to EPR series document under development, it could provide useful and practical technical guidance that would have been very difficult to develop at the safety guide level.

Finland noted that protection strategy was getting the lowest Performance Indicator in EPRIMS, and that there is inherent difficulty in creating a protection strategy. Finland commented about monitoring strategy as it relates to protection strategy and suggested this for future consideration in the SGs. Finland noted that some practical guidance from the Termination SG was included in EPR-Protection Strategy. The roadmap should have the SMR EPZ/D moving forward as a safety guide, with the expectation that it comes directly from the TEC-DOC or EPR Series document. Mr. de La Vega replied that the Secretariat will take into account these considerations. However, development of a Safety Guide for SMR EPZ/D would be quite complex, since to date safety standards are technology neutral.
Japan stated that after the Fukushima-Daiichi incident, emergency workers and helpers joined in support of the emergency response. For better implementation of the GSR Part 7 requirements on emergency workers and helpers, development of additional guidance at a SG level would be useful. Japan stated as well that the specific safety guide GS-G-2.1 addresses the requirements in the early phases of the emergency while GSG-2 covers more of the long-term, existing issues. He asked about the expected outcome of developing a SG on EPCI. Mr. de La Vega replied that it would to bring together all the considerations pertaining to GSR Part 7 Requirements that could be relevant to this EPC. It should build on the aspects of GS-G-2.1, now under the revision, and GSG-2, to be revised, avoiding overlaps and including additional guidance as necessary. We must find a balance between general safety guides, as well as specific safety guides. NPP aren’t covered specifically at the safety guide level. Japan asked for the reasoning to produce a Protection Strategy EPR documents with the caveat that it may become a part of GSG-2. Mr. de La Vega replied that GSG-2 doesn’t currently have a defined structure; but may include similar information about protection strategy.

The United Kingdom as a consultant in both Protection Strategy and GS-G-2.1 welcomes all this work for EPReSC. United Kingdom asked if enough material existed for these new guides on workers and helpers. United Kingdom recognizes that the EPR series documents don’t come to EPReSC for approval but notes there could still be benefit from having EPReSC feedback on them. Protection strategy is a very useful topic and should be converted to a safety guide as feasible. Mr. de La Vega noted these comments with appreciation.

Spain asked about the difference between General Safety Guides and Specific Safety Guides, specifically how the document is decided to be one over the other Canada followed up about the difference between SGs and EPR Series being the flexibility of the latter, due to its non-consensus nature. Mr. de La Vega replied general safety guides apply to all facilities and activities, whilst specific safety guides apply only to a limited set of facilities and activities.

ENISS asked where the priorities lie with relation to explaining concepts in GSR Part 7 and about the structure and hierarchy of these documents suggested in the roadmap. ENISS asked as well if the content of GSG-2 and GS-G-2.1 should dictate which additional safety guide we first work on. He emphasized the need as well to ensure that all the guidance developed will work properly together. Mr. de La Vega replied that normally the set time for revision of a safety guide is 10 years but mentioned that the number may be closer to 13 years. The decision on which SGs to pursue is entirely up to the Committee, however, waiting could be considered not being proactive. While EPR guidance is valuable its influence is limited, as it is a publication of the Secretariat. The Committee should have a logical hierarchy of all documents which they review or to be developed as new SG. This is the goal of the Road Map.
France indicated that the already existing SGs such as GSG-2, GS-G-2.1 and the new GSG-11 should be taken into account properly in defining the proposal for future work to be done by EPReSC. France stated they would be happy to help with this roadmap process.

The European Commission (EU Commission) asked about the justification for development of safety standards and guidance. For example, the recent joint IAEA/EC meeting had the topic emergency workers and helpers, with the understanding there were some differences between the EC and IAEA. Mr. de La Vega replied that the Agency has not used any specific event for the ideas behind these documents. The purpose of IAEA Safety Standards and EC Directives are different. The differences in technical content between the EC BSS Directive and IAEA GSR Part 7 are in general minor, but GSR Part 7 includes more detailed guidance. As it pertains to implementation, different arrangements may be found in different countries but without involving significant deviations from EC and IAEA requirements.

Mr. de La Vega finalized the next step, which is the completion of a survey submitted in July, with comments compiled for EPReSC-9. In addition, the proposed electronic working group (eWG) to be created will analyze the pieces of this proposal and develop a final proposal with a strong justification for this document, to be discussed for approval at EPReSC-9.

Ms. Heinrich summarized the upcoming steps: a survey to be submitted to EPReSC members on GSG-2; and the creation of an eWG to prepare a proposal of revised EPReSC Road Map based on the preliminary draft presented. Current volunteers for the eWG: France, Iran, Japan, and United Kingdom.¹


This topic has been covered in the joint report of the EPReSC / RASSC meeting under Agenda item ER2.3.

EP6.3: Communication Related Topics: Social Media Training

Ms. Harvey opened the presentation with the importance of social media during a response. In the upcoming GSG-14, there exists a direct recommendation for strategies and clear guidelines for how to communicate with the public on social media. With over 4 billion people on the planet using some form of social media, this is a big undertaking. These efforts build as well on the outcomes of the International Symposium on Communicating Nuclear and Radiological Emergencies to the Public. Social media is a very important and challenging tool for proper crisis communication, and should be readied in the preparedness stage, through monitoring social media and the development of clear guidelines for official and

¹ After EPReSC-8 India and USA volunteered as well for this eWG
private uses of social media. Currently, a social media simulator is ongoing in use, with planned simulator supported exercises for Member States planned for Q4 of 2019. This simulator will allow each person to receive tags, info, handles of users, through a simulation deck which can be prepared before the exercise.

Ms. Heinrich stressed the importance of these efforts, and how those who have grown in the EPR field have seen a rise in new public communication systems and technologies.

Slovakia asked if through these log-in credentials, they could simulate their own language and whether it’s possible to program injects for certain time intervals. Ms. Harvey replied that yes, any language could be used in the simulator, even using Google Translate could be done in the system. Microsoft Excel can be used to create banks of tweets and posts to release during these events. The MIMIC system is pre-programmed with indexes for its usage.

Canada asked if the MIMIC simulator could respond to what players are writing to it. Ms. Harvey replied that the controllers have to react if they want to see changes made to tweets and responses to other tweets by players.

Japan agreed with Ms. Heinrich that the culture around press releases is changing and becoming more rapid. They proceeded to ask for thoughts on how nuclear emergencies play out on social media, when compared with a public health emergency. Ms. Harvey replied that nuclear is unique and use of plain language is even more important. The MIMIC program is very specific to nuclear emergencies.

France supported the usage of the MIMIC program, as most organizations aren’t accustomed to use new tools. Being proactive with information rather than reactive during the emergency will allow enhanced preparedness for nuclear or radiological emergencies.

**EP6.4: Updates on activities to support the implementation of GSR Part 7**

Ms. Kouts presented on the activities relating to implementation of GSR Part 7. She listed and briefly explained a number of activities delivered by the IEC with that purpose, such as: Workshops (WS) on Self-Assessment against the IAEA Safety Standards Series No. GSR Part 7 in EPRIMS; WSs on arrangements for termination of emergencies and WSs on the development of a protection strategy, respectively; the School of Radiation Emergency Management (SREM); Workshop on Development and Use of OILs for NPP Emergency; the joint event held between the EU Commission and the IAEA on EPR that was held at the end of 2018, allowing for an useful exchange amongst participants about comparison and good alignment between the EPR part of EU BSS Directive and GSR Parts 3 & 7.

Netherlands asked if the revision of EPRIMS training materials was available generally or only for the workshops. Ms. Kouts replied that this material will be
available generally, but it is important to note that it is working material. Mr. de La Vega clarified that some training materials are planned for publication, but others are not and will remain as working material. Netherlands asked as well about the workshop on protection strategy, noting that it was not included in the Agenda. Mr. de La Vega provided a short update on the protection strategy preliminary draft, as it is currently in the final stage of drafting before internal IEC review. The document is expected to be submitted to the Publication Committee by the end of the year.

Iran asked (through WebEX) about requirement 5 of GSR Part 7, and training materials on this specifically. Ms. Kouts replied that there are several trainings offered, including the pilot WS on Protection Strategy, which saw some adjustments to the material to improve clarity.

France asked about training on GSG-11, specifically when it’s planned to organize a WS for Europe. Mr. de La Vega replied that the training plan for next year is currently under development.

New Zealand asked about the next edition scheduled for the Asia Pacific region of the SREM, and whether the training materials were suited to the specific features of the region and the uneven level of development of EPR arrangements. Ms. Kouts replied that the training materials are standardized for SREM, and that there is a direct goal of having experts from the host country lecturing along with IAEA experts. The materials for all the events remain the same, the only change is related to the site visits arranged by the host.

Slovakia asked about the Agency system allowing more training materials to countries, since they would be useful to Member States in their own events. Ongoing updates of these materials would be understood by all using them. Mr. de La Vega replied that officially published training materials are available for countries use, whilst working materials are available on specific request by interested countries.

**EP6.5: Update on EPRIMS status and related activities**

Mr. Breitinger gave a presentation summarizing the status of the platform, with the continual improvements to the system in terms of user experience. He informed about the increase in the data uploaded to the system by Member States, the increased usage of the public member state profiles and the EPRIMS Workshops and webinars set to take place over 2020. He provided some overall statistics and trends that could be drawn from the platform, including which requirements were being rated higher than others regarding their implementation in the different countries. In closing, he specified that EPRIMS 2.1 would be coming out in Q3 2019 with some additional features to draw more information on overall trends from the dates of the platform.

United Kingdom asked about the IAEA’s use of this data, and any impact the data would have on IAEA activities. Mr. Breitinger replied that there are a variety of uses
including: different aspects related to Technical Cooperation Projects, such as Project Design, EPREV missions which use the self-assessment conducted by the host country in EPRIMS, and possibility of gleaning additional information for better understanding by IAEA experts on the situation regarding EPR of the country they are visiting.

United Kingdom asked if identifying gaps in EPRIMS is useful for deciding Agency activities and direction as it relates to regulatory review services. Mr. Breitinger replied that the Integrated Regulatory Review Service (IRRS) is not related to the information included in EPRIMS, even though some specific information could eventually be useful. The EPRIMS data is one piece of data useful for decision makers within the IAEA at all levels.

WHO asked if there were options for IAEA and WHO to work together to build synergies regarding medical aspects of nuclear or radiological emergencies, in the peer review services delivered by WHO and IAEA. New Zealand followed up asking how a country may avoid overlap, in particular the WHO Joint External Evaluation (JEE) which includes a module focused on radiation emergencies and the EPREV and whether this could be done in the future. Mr. Breitinger replied that the IAEA is in talks with WHO to better coordinate EPREV and JEE module on radiation emergencies. Mr. de La Vega provided additional information on this point.

Canada commented on the coordination of the EPREV with the JEE as well IRRS. He believes that completion of Module 19 of the JEE shouldn’t be required if an EPREV has taken place recently or is planned to take place. Mr de La Vega replied that the IAEA is in discussions with WHO on an arrangement that will help in creating these IAEA/WHO synergies and avoid unnecessary burden to MS.

ENISS asked how a holistic system like EPRIMS helps in a country. Mr. Breitinger replied that a variety of users can use EPRIMS within the country, and due to the cross-cutting nature of EPR these users comes together to create a structure that incorporates all elements. He explained how to register in EPRIMS as well.

United Arab Emirates asked about further work between the WHO’s JEE and IAEA’s EPREV missions The information covered by both the WHO JEE and IAEA EPREV is useful to the country and in the upcoming EPREV follow-up mission, UAE wanted a focus on EPC 1, since other EPC’s could be covered to some extent by the WHO JEE.

**EP6.6: Information on IAEA Activities regarding Transportable NPPs and considerations related to EPR**

Mr. de La Vega presented on the new field of Transportable NPP’s (TNPP’s), which has future perspectives of expansion after deployment of the first TNPP this summer. While the NPP is relocatable, it isn’t designed to produce energy during transportation or provide energy to transport itself. When the TNPP is at a fixed location for energy production, the considerations applicable to the TNPP have many...
similarities with land-based NPP’s, in this case Small Modular Reactors. However, the transport of these NPP’s raise different issues. At the Technical Meeting on Next Generation Reactor and Emergency Preparedness and Response (EPR), it was concluded that current EPR requirements are fully applicable to SMRs. While there will need to be further developments to specifically address the transport mode of TNPP’s, since it’s not covered by current International Maritime Organization (IMO) regulations. A Coordination Group has been set-up between the IAEA’s Nuclear Energy Department (NE) and Nuclear Safety and Security Department (NS). IEC is planning on developing EPR series documentation for guidance on EPZ for SMR’s.

New Zealand asked how the IAEA would coordinate each of the divisions for this multi-disciplinary work. Mr. De la Vega replied that the Coordination Group is the key to developing IAEA activities in this field, including technical documents and guidance which require contribution of both NE and NS. While most safety standards are developed on topics which we have years of experience in, which isn’t the case for this guidance since we are in an initial stage. In addition, safety standards are technology neutral, so in terms of specific guidance production of technical guidance documents, it could be the best way to accommodate member state requests. IMO will be a key player regarding regulations applicable to transport mode of this kind of reactors.

**EP7: PRESENTATIONS BY MEMBER STATES**

**EP7.1: Presentation of EPR Arrangements in Canada**

Mr. Ahier presented on the Arrangements for Nuclear EPR in Canada. In EPR, there are three tiers of players with different responsibilities: federal, provincial, and territorial level. Canada relies on shared roles and responsibility as part of the All-Hazards approach. It is important to note that during a nuclear emergency, provinces assume control from the start, and are the primary jurisdictional authority. While each province develops their emergency plans, the government, operating organization, and regulators must have plans to provide support to these plans as necessary. The province can request the general help of the federal government for specific support functions. At the international level, Canada is a signatory of both the Convention on Early Notification of a Nuclear Accident and Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency. There also exists various agreements between the US and Canada to deal with transboundary emergencies. Canada continues to evaluate its capabilities through drills, exercises, and external reviews, including the EPREV service with a mission recently held.

United Arab Emirates asked about the logistics of federal interaction that takes place upon request by the provincial government, and whether in a general emergency the federal level was not expected to respond at the very beginning. Mr. Ahier replied that notification is required, while the operator under the oversight of the regulator will be responsible for on-site activities, the province is responsible for managing off-site
responses. They can request assistance through previously established agreements between the provincial and federal governments.

Israel asked about the emergency plans and their total coverage of potential incidents and whether assistance could be provided between provinces (i.e. same equipment, same procedures). Mr. Ahier replied that there is a focus on EPC 1 events, but that the plans detail response to virtually any event. While provinces each have their own resources and plans, there exists a coordination between the provinces, and requests for resources from the government or through province-to-province are feasible.

Japan asked about the work done under the JEE as it relates to the recent EPREV and whether there is any advice for improving coordination between these two external review services. Mr. Ahier replied that the JEE was informed about plans for having the EPREV in the following year, but they decided to keep the module on Radiation Emergencies. Better-coordination between the international organizations would be beneficial.

Germany asked about the coordination between the US and Canada on transboundary emergencies. Mr. Ahier replied that Ontario has a community in the EPZ of a US reactor. There exists a specific agreement between the province and the state of Michigan (Fermi NPP). Canada and USA will follow their own regulations, but with strong coordination and information exchange. Concerning public communication, Canada was able to standardize communication procedures with the US. Ms. Heinrich commented that it was interesting to hear about an agreement between a state and the Canadian province due to the top-down nature of the US.

The EU Commission asked about the benefits of having the EPREV in Canada. Mr. Ahier replied that Canada had some overarching objectives going into the EPREV, including the review of the preparedness arrangements and identification of potential areas for improvement. The EPREV achieved these goals. Canada was the first G7 country to undertake an EPREV and hopes to be a stimulus for other nations to take on the EPREV in their own country.

Sweden asked how Canada was able to perform an evacuation in a timely manner. Mr. Ahier replied that two facilities were selected for a detailed site visit; Pickering and Point Lepreau. Pickering has a great number of people in its vicinity while Point Lepreau is less populated. Each one has its own method of notifying the public and evacuating, under different provincial plans which are adapted to their specific needs.

EP7.2: Presentation of EPR Arrangements in United States

Mr. Johnson presented on the role of the U.S. Nuclear Regulatory Commission (USNRC) in the Preparedness & Response arrangements for dealing with emergencies at Nuclear Facilities. The USNRC is an independent body made up of a commission of 5 representatives of the commission; all of which are confirmed by the US Senate. The primary functions of the USNRC include establishment of rules and
regulations, and oversight through inspection, enforcement, and evaluation of operational experience. Specific regulations on EP come from the Code of Federal Regulations for both the USNRC and the Federal Emergency Management Agency (FEMA). FEMA assesses the off-site response and reports to the USNRC responsible for regulations related to on-site response activities and setting the requirements for offsite response. The USNRC sets two Emergency Planning Zones (EPZ), including the 16 km (10-mile) radius for plume exposure and 80 km (50-mile) radius for ingestion exposure. The event classification has several levels which guide actions by the USNRC and the NPP Operating Organization upon the onset of the emergency.

United Arab Emirates asked why 80 km was set as the ingestion exposure pathway and whether the USNRC has the responsibility of regulating emergency workers and helpers Protection. Mr. Johnson replied that the size of the EPZ is defined by the regulations base on some assumptions, but NRC has authority for making any changes to these exposure pathway distances. During emergency response, individuals involved will follow dose limits set in the regulations and will be considered as emergency workers. United Arab Emirates asked what would happen if the USNRC disagrees with the licensee protective actions and classification. The presenter replied that the USNRC monitors the situation and would inform the local government/operator of any disagreements in assessment, classification and protective actions.

France asked about the specifics of technical support in an emergency. And whether the reactor safety assessment team members are employees of the USNRC. Mr. Johnson replied that everyone working in the NRC Emergency Response Centre (either headquarters or regional office) is an NRC employee. The emergency response manager will phone multiple individuals to get a responder in every required role.

Germany asked about cross-border harmonization for early protective measures and radiological levels and whether neighbor nations across the border would respond differently than the US. Mr. Johnson replied that the emergency procedures and radiological action levels are not identical between Canada and the US. The USNRC requires the operating organization to work with the cities or towns closest to them; this includes cross-border and emergency response managers are always in communication with neighboring countries.

Israel asked about the separation between the U.S. Department of Energy (USDOE) and USNRC and whether the USNRC would get support from USDOE teams or are involved in the response to emergencies in USDOE facilities. Mr. Johnson replied that the USDOE possesses a variety of tools including their aerial assets for monitoring. There is a lot of interaction concerning capability during nuclear emergencies. Should an event occur at a USDOE facility, USNRC will not take the lead, but can offer assets and assistance. Ms. Heinrich replied that federal agencies can respond in any nuclear or radiological emergency. The lead agency will be selected based on the location of the emergency. For example, an attack at an NPP would have its response lead by the US Federal Bureau of Investigations, while a NPP accident would be under the lead of
the USNRC. The USDOE would provide expertise and advice for a state which may be experiencing an emergency.

Mr. de La Vega asked about the protective action guidelines and the basis for their revision. Mr. Johnson replied that the guidelines for USNRC approval come from Environmental Protection Agency (EPA) regulations, USNRC regulations, and the licensees themselves. For public protective actions specifically, the EPA creates regulations, which the USNRC implements.

Canada asked if the US States have a role in technical assessment for nuclear emergencies. Mr. Johnson replied that the state can build up a body of knowledge in nuclear protection if they choose. The USNRC would actively provide characterization to help validate a State’s assessment. Nearly all the time, the State’s assessment agrees with the USNRC’s assessment.

**EP8: REPORTS FROM INTERNATIONAL ORGANIZATIONS**

*EP8.1: Report by Food and Agricultural Organization (FAO)*

Mr. Blackburn addressed the Committee about recent developments within the Joint IAEA/FAO Division. He referred to the work in radioactivity in food, which was presented to EPreSc-6. Helping Member States craft their own criteria during non-emergency situations for food and water is the main goal. It will provide support for development of harmonization of the food and water standards. Looking at the food regulations, and interfacing with CODEX to have a report on food contaminants is ongoing. The FAO/IAEA joint activities have had detailed success in using webinars to communicate with stakeholders internationally. A new coordinated research project (CRP) on the revision of a code for radioactivity monitoring of foodstuff is ongoing, to improve communication between the monitoring teams, agricultural departments, and key decision makers.

Sweden asked about the use of the system in the CRP only being used for foodstuffs and whether this system communicates with the IAEA International Radiation Monitoring Information System (IRMIS). Mr. Blackburn replied that the system being called “Decision Support 4 Nuclear Accident Affecting Food and Agriculture” (DSS4NAFA) will exchange info with IRMIS, and isn’t intended to replace the IRMIS system, but rather to provide a high command and control for decision makers to communicate restrictions on agricultural activities.

United Arab Emirates asked about the use of this system during food trade and consumption within the context of an exercise, this is of special interest with the ConvEx-3 Exercise in 2021. Mr. Blackburn replied that, if data exists about consumption rates and food trade/production, then it can be used for this purpose with a specific focus on trade during the nuclear emergency exercise.

Mr. Patel addressed the EPRReSC Committee about the Commission’s tools and roles. The Commission is responsible for proposing and enforcing legislation in EU Member States. The specific nuclear components fall under the European Atomic Energy Community (EURATOM) Treaty. The tools which are used by the European Commission include different platforms such as the European Community Urgent Radiological Information Exchange (ECURIE), capable of being the official notification channel between Member states, and European Radiological Data Exchange Program (EURDEP), a platform where monitoring results are displayed for data from the Member States (including 4 non-EU Member States). The publications done by the EU Commission include the Basic Safety Standards Directive, which deals with ionizing radiation. The scope and content of this Directive regarding EPR was recently discussed and compared with GSR Part 7 in an EC/IAEA joint workshop. In a recent study on public information arrangements for radiological and nuclear emergencies, the 28 Member States public information arrangements were surveyed. The analysis from recent events provided basis for good practices in transparency. The EU Commission is considering a platform for Member States to share lessons learned from exercises.

Ms. Heinrich stated that she appreciated how much information was covered in this presentation and would like to have further information on the public information study and platform to share exercise experiences.

New Zealand asked if the findings of the public information study could be used in non-EU Member States. Mr. Patel replied that the recommendations and findings are more applicable generally. The report does highlight the best practices of some Member States.

Mr. de La Vega commented on the how useful the IAEA / EC joint event was for the Member States and would like to see the process continue.

France asked if the outcomes from the joint event could be used more practically and about the most effective way to benefit from these outcomes. Mr. Patel replied that the Commission is fully engaged on how to best communicate these joint activities, both with the IAEA, and Member States. The Article 31 group of the European Commission could have a working group of these experts. There is also a competent authorities forum within the European Commission, which drives the direction of the priorities for the European Commission groups on nuclear topics.

**EP8.3: Report by ENISS**

Mr. Skegg delivered a presentation covering the first ENISS EPR meeting in May of 2019. He described the key outcomes including the thoughts of the operator groups in working towards a more consistent, risk-based approach to emergency response. The ENISS EPR Expert Group are available to participate in relevant meetings and
peer reviews to make this a reality. The goal is to develop guidance by providing positive input to EPR standards development and review.

Ms. Heinrich thanked ENISS for being a conduit into the operator community and bringing them into the EPR guidance process.

Mr. de La Vega asked how on-site emergency plans and NPP assessments are performed and utilized by ENISS and whether ENISS will provide their viewpoints regarding IAEA publications. Mr. Skegg replied that one of the issues which first came from the meeting is that each country uses the standards, EPR series documentation, and recommendation differently. Mr. Skegg supports use of the self-assessment tools provided by the IAEA.

**EP8.4: Report by NEA/OECD**

Ms. Garnier-Laplace gave a presentation on recent and ongoing NEA/OECD activities relevant to EPRs including the Working Party on Nuclear Emergency Matters (WPNEM). She explained the new structure of groups reporting to Committee on Radiological Protection and Public Health (CRPPH), including the different task and expert groups created under its frame. She also provided information on the relevant outcomes from the INEX-5 Workshop being integrated into the WPNEM Principle of Work. A subgroup of the CRPPH will be working on the non-radiological consequences with WHO in future efforts.

There were no questions.

**EP8.5: Report by WNTI**

Mr. Nojima delivered a presentation summarizing the main activities of WNTI regarding EPR. He summarized the objectives of WNTI, with specifics on provided information on recent WNTI activities. He referred to the new location, design, and upcoming website. The presentation focused on the safety achieved in transport of radioactive materials, with more than 20 million transports of radioactive materials annually with no transport accident which has caused significant radiological damage to people or the environment. WNTI focused on challenges to be addressed in future activities, highlighting the interest of WNTI in the revision of TS-G-1.2. He informed on WNTI’s support to the publication from 2016 onwards. With 8 comments accepted, 2 accepted with modification, and 4 not accepted, it was a successful discussion at Step 11. Finally, he provided information on upcoming events in which WNTI would provide support as well as host.

Mr. de La Vega asked about the interest of WNTI in TNPPs and if WNTI already actively participate in IMO activities Mr. Nojima replied that WNTI actively participates in IMO, not specifically on the topic of TNPP but he mentioned the interest of WNTI in supporting the discussions on TNPP’s and welcomes the opportunity for doing so. Mr. de La Vega informed about the upcoming briefing to
Member States being planned by the IAEA on TNPP, and interest in representation from international organizations.

**EP 8.6: Report by WHO**

Ms. Carr addressed the Committee with a presentation on recent WHO changes and new strategic objectives defined by the organization and main WHO activities relevant to EPR. She described main contributions from Radiation Emergency Medical Preparedness and Assistance Network (REMPAN) and recent WHO publications on EPR and cosponsoring of different IAEA Safety Standards and other guidance. She informed as well about a joint WHO/NEA Project of non-radiological health effects of radiation emergencies. She provided information on different WHO activities on follow up of effects from past nuclear emergencies. She also provided information on WHO activities on bio-dosimetry and a WHO-FAO joint network of national food safety authorities. She spoke about the digital activities including webinars and the publication of Digital Health. She updated the information on the implementation of International Health Regulations (IHR) and the tool for its verification, the Joint External Evaluation (JEE). Finally, she focused on topics of interest for future cooperation, including long-term follow-up of nuclear accidents, internal contamination, and clinical management of acute radiation syndrome.

There were no questions.

**EP9: CLOSING OF THE MEETING**


Ms. Heinrich summarized the main agreements and actions stemming from the meeting, as described across this report, including:

- The following draft SSs and DPPs approved for moving to the next step in the SPESS process, as indicated in the Agenda.
  - DS494 (Step 11)
  - DS510 (Step 7)
  - DS513 (Step 3)
  - DS524 (Step 3)
- DS521 was rejected by EPreSC and should be amended. The new version will return to EPreSC for further consideration in future meetings.
- DS515 has been taken to a silence procedure, with a window for comments of two weeks.
- DS469 was approved but after the technical editing process is completed and time for new comments from EPreSC members would be opened under a silence procedure.
• Secretariat will submit a survey to Member States on the planned revision of GSG-2, that will provide the basis for discussing about the scope and content of its revision.

• The EPReSC Roadmap electronic Working Group (eWG) has the following members are included: Iran, France, United Kingdom, and Japan, but additional volunteers are requested. This eWG should produce a proposal for revised EPReSC Road Map, based on the preliminary draft presented in EPReSC-8.

• Regarding presentations on Member State EPR arrangements, UAE, Sweden and Ireland volunteered to deliver a presentation on their arrangements in EPReSC-9.

**EP 9.2: Dates for future Meetings**

Mr. de la Vega provided information on dates for future meetings:

- 9th EPReSC meeting from December 3rd to 5th 2019.
- 10th EPReSC meeting tentatively scheduled June 15th to 18th 2020.

**EP9.3: Closing Remarks**

Mr. de La Vega mentioned the upcoming Technical Meeting (TM) on 20 years of EPREV, and invited feedback from countries related to improving this service, and what it can provide. The dates of the event are October 21-25, 2019.

Ms. Heinrich thanked the participants for their important contributions provided during the meeting and the fruitful discussions held. She sent a special thanks to the USA and Canada for sharing their presentations, and the colleagues whom attended through WebEx. She encouraged the continuing work of EPReSC including the intersessional efforts and silence procedures and thanked all participants.

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2 The dates for EPReSC-10 have been recently changed to June the week between June 8th to 12th
List of Participants
Eighth Meeting of the Emergency Preparedness and Response Committee (EPReSC)

1345 1346

EPReSC-8 - List of attendees

1347 1. Australia Mr Marcus Grzechnik
1348 2. Belgium Mr Cristian Vandecasteele
1349 3. Brazil Mr Elder Magalhaes De Souza
1350 4. Brazil Mr Marcello Gomes Goncalves
1351 5. Bulgaria Ms Lyudmila Simeonova
1352 6. Canada Mr Christopher Cole
1353 7. Canada Mr Brian Ahier
1354 8. China Mr Xiujing LIN
1355 9. China Mr Jiangang ZHANG
1356 10. China Mr Yapeng YANG
1357 11. Denmark Mr Jimmy Philip Thomsen
1358 12. Egypt Ms Wafa Fawzy Bakr
1359 13. Finland Ms Hannele Aaltonen
1360 14. Germany Mr Tobias Schlummer
1361 15. India Mr Probal Chaudhury
1362 16. India Mr Jaharlal Koley
1363 17. Ireland Mr Kevin Kelleher
1364 18. Israel Mr Avraham Tshuva
1365 19. Italy Mr Paolo Zeppa
1366 20. Italy Ms Silvia Scarpato
1367 21. Japan Mr Toshimitsu Homma
1368 22. Japan Mr Kunihiro Motomitsu
1369 23. Japan Mr Kazushi Fujikawa
1370 24. Japan Mr Shogo Takahara
1371 25. Japan Mr Hideo Usui
1372 26. Poland Mr Maciej Drabant
1373 27. Poland Mr Karol Lyskawinski
1374 28. Portugal Mr Joao Oliveira Martins
1375 29. Russian Federation Mr Albert Shapovalov
1376 30. Russian Federation Mr Aleksander Victorovich Stovbur
1377 31. Slovakia Mr Michal Makovnik
1378 32. South Africa Mr Reuben Makgae
1379 33. Spain Mr Jose Manuel Martin Calvarro
1380 34. Sudan Ms Nahla Sulieman Fadlalla
1381 35. Sudan Mr Mohammad Hamadalneel
1382 36. Sweden Mr Peder Kock
1383 37. Sweden Mr Jan Johansson
1384 38. Switzerland Ms Anna Leonardi
1385 39. United Arab Emirates Mr Fahad Mohamed Al Bloushi
1386 40. United Kingdom Mr David Owen
1387 41. United Kingdom Ms Hannah Varnes
1388 42. United Kingdom Ms Henrietta Isaac
1389 43. United States of America Ms Ann Heinrich
1390 44. United States of America Mr Robert Clay Johnson
1391 45. ENISS Mr John Skegg
46. WNTI Mr Nojima Hirotaka
47. OECD – NEA Ms Garnier-Laplace
48. WHO Ms Zhanat A. Carr
EPReSC-8 List of participants through WebEx service
1. IRAN Ms Jila Karimi Diba
2.
3.
4.