Meeting Minutes

1. Expected participants:
   a. Bingbing Song, IMO
   b. Rosa Garcia Couto, UNECE
   c. Romain Hubert, UNECE
   d. Dawn Wilkes, UPU (Participated in first half of meeting)
   e. Steve Whittingham, IAEA
   f. Eric Reber, IAEA

2. Additional data and analysis thereof from ICAO for TECDOC on Accident Severity During the Air Transport of Radioactive Material

   Written Comments from Ms. Rooney: I have passed on the request for additional data/information but as previously explained, all such requests were put on hold whilst preparing for our triennial Assembly (which is finishing today!). When I get back from missions, I will follow up and send directly to you, Eric.

3. Switzerland Proposal to UNECE: Transport by post of Class 7 excepted packages with limited activity

   Mr. Whittingham suggested that Switzerland coordinate the drafting of the proposal with their TRANSSC representative, Dr. Frank Koch.

   Ms. Couto indicated that Switzerland withdrew the document and it was therefore not considered at the July 2019 session of the TDG Sub-Committee. She indicated that a revised proposal was submitted and will be considered at the December 2019 session of the TDG Sub-Committee. Further details are provided in Annex I.

   Written Comments from Ms. Rooney: I am very interested in hearing the outcome of this discussion – and suggest that you talk with the UPU as well. Perhaps invite them to join this telecom – or at least future ones?

4. Paragraph 81 of IAEA General Conference Resolution GC(63)/RES/7; Secretariat should consider options for addressing denials of and delays in shipment, including the development of a Code of Conduct for facilitation of shipments of radioactive material

   Paragraph 81 of the IAEA General Conference Resolution GC(63)/RES/7:

   81. Requests the Secretariat to hold a technical meeting to share experience and with a view to establishing a Working Group, with full participation of interested Member States and relevant experts, to consider the options for addressing denials of and delays in shipment, including a code of conduct on facilitation, and provide an initial report on these options to the Member States by June 2020;
Written Comments from Ms. Rooney: What would the development of a Code of Conduct involve? Any suggestions as to what you would want ICAO to do? We have already amended our Annex 9 – Facilitation to include a recommendation on facilitating the transport of radiopharmaceuticals by air.....

Mr. Whittingham stated that the issue will be discussed at TRANSSC39. He indicated that a technical meeting will be held as request in the resolution, perhaps in March 2020. Mr. Whittingham indicated that the meeting will consider the development of a Code of Conduct to facilitate the movement of shipments of radioactive material. He indicated that the scope of the problem of denial of shipment of Class 7 has not been adequately characterized; specifically, a statistical analysis has not been performed that would characterize how often denials of shipment of Class 7 shipments occur as a function of the total number of shipments. Also, he indicated that he is unaware of any evidence that would suggest that denial of shipment is a greater problem with Class 7 than other classes of dangerous goods. With the technical meeting, he stated that we hope to put the problem of denial of shipment in context. Mr. Whittingham also expressed a desire to gather specific information on which ports, carriers, routes, etc. are involved with denial of shipment so that a clear picture of the problem can be developed and so that specific and targeted actions can be developed and implemented. He indicated that the problem of denial of shipment may not be within the purview of the Transport Safety Unit; denials of shipment may, for example, arise from business concerns which are not related to the safety and security of the transport of radioactive material. He indicated that no funding is available for the travel costs of attendees at the prospective technical meeting.

Mr. Song suggested that the issue could be considered together with the development of training materials by IMO and suggested that the prospective technical meeting address the development of training material including eLearning. He stated that the development and dissemination of training material including eLearning materials may help with the problem of denials of shipments. Mr. Song asked that he be kept informed of the arrangements for the prospective technical meeting, but did not know whether he would be able to attend. He indicated that IMO does not maintain any statistical information concerning denials of shipment.

Ms. Couto asked about whether the development of a Code of Conduct would be reported to the TDG Sub-Committee. Mr. Whittingham indicated that he would report on developments concerning para. 81 at the December 2019 session of the TDG Sub-Committee.

5. Issues for TRANSSC 39 from IMO (transport of NORM, Footnotes in the IMDG Code, training material for transport of Class 7 by sea)

Mr. Song indicated that IMO had their Sixth Session of the Sub-Committee on Carriage of Cargoes and Containers (CCC 6) meeting in September and the following issues related to Class 7 material were discussed:

- Transport of naturally occurring radioactive material (NORM)
Mr. Song indicated that this issue is an initiative of Germany. He stated that during CCC 6, this issue was discussed, but it was concluded that the IAEA should consider it first.

Mr. Whittingham indicated that a working group on NORM would meet at the upcoming TRANSSC meeting and that they would be reviewing this issue. He indicated that a proposal like this one on NORM would not be sufficient for the IAEA to revise SSR-6. It was clarified that the IAEA considers revising SSR-6 every two years; however, it is usually revised only every approximately four to six years. He stated that the first two year review of SSR-6 will be conducted beginning next year. Mr. Whittingham also stated that TRANSSC will be considering a change to a fixed four year review cycle at the next TRANSSC meeting that would allow SSR-6 to be reviewed more quickly than in the past. He indicated that under the current revision process, the quickest a change could be made to SSR-6 to incorporate this proposal would be 2022. Mr. Whittingham also stated that revisions to the IAEA’s review cycle would be harmonized with that of the Orange Book.

Ms. Couto indicated that a revised edition of SSR-6 in 2022 could be incorporated into the 23rd Edition of the Orange Book if the proposed amendments are received by the deadline for submission of official documents for the July session (i.e. April 2022) for consideration by the TDG Sub-Committee at its July 2022 session. There would still be an opportunity for final editorial review of the amendments at the December 2022 session of the TDG Sub-Committee, that would then be considered by the Committee of Experts at its December 2022 session for final endorsement. Ms. Couto indicated that any revision of the IAEA’s review cycle should consider harmonization with that of the Orange Book. She indicated that she would provide information about the review cycle of the Orange Book in writing and this information is included as Annex I of these minutes.

- Footnotes in the IMDG Code
  Mr. Song indicated that there were two footnotes to be considered by the IAEA. With future guidance from the IAEA on the footnote issue, IMO will make amendments to IMDG Code accordingly. He further indicated that CCC 6 did not make any amendments on these two footnotes in order to avoid a lack of harmonization between the IMDG and SSR-6 (Rev. 1).

  Mr. Song indicated that IMO has undertaken a comprehensive review of all footnotes in the IMDG Code. He indicated that for the two footnotes referenced in Item 6 of Annex II of these meeting minutes, IAEA should provide input on the status of these footnotes and whether these footnotes can be incorporated into the main text of the IMDG Code. Mr. Song indicated that IMO will provide a list of the footnotes that are being reviewed to the TDG Sub-committee.

  Mr. Whittingham indicated that the two footnotes could be reviewed by a TRANSSC Technical Expert Group (TTEG). He indicated that more background information concerning the historical development of the footnotes and how the footnotes relate to SSR-6 would be needed to fully consider what the next step would be concerning review by the IAEA. Mr. Whittingham indicated that security issues are
outside the purview of the Transport Safety Unit and that this issue will be forwarded to the IAEA’s Division of Nuclear Security.

- **Training materials for the safe and efficient transport of IMDG Code Class 7 radioactive materials by sea**

Mr. Song indicated that CCC 6 agreed that training material related to Class 7 could be incorporated and enhanced in the existing module course 1.10 on Dangerous, Hazardous and Harmful Cargoes, when an update is initiated. He suggested that IMO and IAEA could collaborate on the development of training material and suggested future discussions. Mr. Song stated that IMO’s module course has not yet been computerized in a way similar to the IAEA’s eLearning platform.

Mr. Whittingham stated that Class 7 training material should be integrated with the training for other classes of dangerous goods. He indicated that IMO and the IAEA should collaborate and share information on the development of training material. Mr. Whittingham indicated the CPL4Net and Articulate are the two pieces of software that the IAEA is using to develop its eLearning platform.

Mr. Song and Mr. Whittingham both agreed to future discussions on the development of training material.

Annex II of these minutes is the written submittal provided to TRANSSC by Mr. Song concerning these issues.

6. **Knowledge management practices in IMO, UNECE, and ICAO with regard to information supporting changes to recommendations**

Written Comments from Ms. Rooney: *Our reports are very detailed – however, this means reading a lot! When a new edition of the TIs come out, it is annotated to show where there are additions, changes or deletions – so then it’s simply a case of reading the panel (and working groups, if applicable) report(s) prior to that edition.]*

Ms. Couto stated that UNECE’s reports are limited in size, so they request that all proposals for amendment to the orange book include background information explaining why they are needed. She indicated that the best way to know why a decision was made is to look at the original proposal. In cases where the TDG Sub-Committee requests additional information or provides comments on a proposal the author of the proposal is invited to provide that information, to revise the proposal to take account of the comments made and to submit a revised document. Usually, the revised proposal contains a reference to the reasons why it has been revised. The reports of each session of the TDG Sub-Committee usually explain in a succinct manner the reasons why a proposal has not been adopted.

Regarding the tracking of changes from one edition of the Orange Book to the next, when it comes to the end of the biennium the Secretariat prepares a consolidated list of amendments to the Orange Book that is circulated as an annex to the report of the
Committee of Experts\(^1\). Additionally, when revised electronic versions of the Orange Book are published, a track changes version showing the changes is also made available online (English only).

Mr. Song indicated that IMO follows a similar approach to the one for UNECE described by Ms. Couto.

Mr. Whittingham indicated that the IAEA is considering what approach to take to the Technical Basis Document (TBD). He indicated that one proposal is to leave the document as is, and going forward, to record proposals, the reasons for rejections, and which proposals are accepted. He indicated that there should be a means available to track the resolution of all proposals for changes to SSR-6. He indicated that in five to six years the IAEA NSS-OUI system may be used to track changes to the IAEA Safety Standards including SSR-6.

7. **Transposition of SSR-6 into RID/ADR/ADN (land modes)**

Ms. Couto stated that the SSR-6 (Rev. 1) requirements have been included in the 21st Ed. of the Orange Book. Now they are in the process of incorporating the requirements into the “land modes” RID/ADR/ADN. During the discussions at the September 2019 session of the RID/ADR/ADN Joint meeting of experts, several issues were identified to be reported back to the TDG Sub-Committee and raised to the attention of the IAEA. The issues are mainly editorial and are described in detail in Annex I.

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ANNEX I

AIEA inter-agency meeting (9 October 2019)

Information provided by UNECE on matters of interest to IAEA

Transposition of the provisions of SSR6-Rev.1 into the Model Regulations and international agreements dealing with land modes (RID/ADR/ADN)

In 2018, at the 53rd and 54th session of the Sub-Committee of Experts on the Transport of Dangerous Goods, IAEA presented a draft list of amendments to the twentieth revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations, for alignment with the 2018 Edition of the IAEA Regulations for the Safe Transport of Radioactive Material (SSR-6, Rev.1). The Sub-Committee adopted the proposed amendments. These amendments were endorsed by the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals at its ninth session (7 December 2018) and they are now reflected in the 21st Revised Edition of the Model Regulations.


At its September 2019 session, the Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods (Joint Meeting RID/ADR/ADN) adopted the amendments proposed by the Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods with a few editorial changes. See below for more details. This will ensure harmonisation of RID/ADR/ADN applicable as from 1 January 2021 with SSR6-Rev.1.

Ref: ECE/TRANS/WP.15/AC.1/2019/22 and Add.1 and report ECE/TRANS/WP.15/AC.1/136 and Add.2

Work of the Joint Meeting RID/ADR/ADN

At its September 2019 session, the Joint Meeting RID/ADR/ADN:

1. Adopted a new systematic approach to refer to the different versions of the IAEA Regulations in RID/ADR/ADN. This will be also proposed for the Model Regulations (informal document INF.49 from secretariat http://www.unece.org/fileadmin/DAM/trans/doc/2019/dgwp15ac1/ECE-TRANS-WP15-AC1-2019-GE-INF49e.pdf):

   New definition in 1.2.1 and updates of the text to only refer to “IAEA Regulations for the Safe Transport of Radioactive Material”:

   ““IAEA Regulations for the Safe Transport of Radioactive Material” means one of the editions of those Regulations, as follows:

   (a) For the 1985, 1985 (as amended 1990) editions: IAEA Safety Series No. 6
   (b) For the 1996 edition: IAEA Safety Series No. ST-1
   (c) For the 1996 (revised) edition: IAEA Safety Series No. TS-R-1 (ST-1, Revised)
2. Adopted a few editorial changes to the French version in text transposed from the IAEA Regulations. This was to ensure grammatical consistency between introductory sentences and sub-paragraphs (use conditional form instead of present).

**Action requested from the TDG Sub-Committee and IAEA**

The same approach will be proposed for the Model Regulations.

As a consequence, it is also suggested to replace “doit s’appliquer” by “soit appliquée” in the French version of the IAEA Regulations § 423 (f), 424 (d) and 427 (e).

3. Adopted a consequential amendment in Chapter 7.5.11 to replace “radiation limits” by “dose rate limits”.

**Action requested from the TDG Sub-Committee and IAEA**

The same change will also be proposed for the Model Regulations and it is proposed to do the same modification in § 566 (b) of the IAEA Regulations.

4. Considered that the French translation of the phrase “and any special precautions or special administrative or operational controls” in paragraph 4.1.9.2.4 (e) (iii) [§ 520 (e) (iii) of the IAEA Regulations] was misleading.

**Action requested from the TDG Sub-Committee and IAEA**

Since this text was coming from the French version of the IAEA Regulations for the Safe Transport of Radioactive Material, the Joint Meeting agreed that this issue should be brought to the attention of the TDG Sub-Committee.

It was noted that this phrase also appeared in the English version of 6.4.23.2 (c) [§ 830 (b) of the IAEA Regulations] and was translated differently into French: “toute précaution spéciale ou opération spéciale administrative ou opérationnelle qui seront réalisées en cours de transport” / “précautions spéciales ou opérations spéciales prescrites, administratives ou autres, qui seront réalisées en cours de transport”.

*Ref: ECE/TRANS/WP.15/AC.1/156 and Add.2*

**Matters of interest to IAEA on the agenda for the fifty-sixth session of the TDG Sub-Committee (2-11 December 2019)**

**Document ST/SG/AC.10/C.3/2019/70 (Secretariat):**

1. Examples of identification marks in 6.4.23.12: consequential amendment missing in the Model Regulations – No impact on IAEA Regulations

2. Clarification of the text of 5.1.5.1.3 and cross-reference: clarification of text in the Model Regulations – No impact on IAEA Regulations

3. Reference to “safety” in the French text of the Model Regulations: Although IAEA uses “sécurité” to translate “security” in the IAEA Regulations, in the Model Regulations there is a difference between safety and security which are respectively translated as “sécurité” and “sûreté”.

It is proposed to keep the IAEA terminology in terms and phrases such as “indice de sûreté-criticité” and “Normes de sûreté de l’AIEA” used for
“criticality safety index” and “IAEA safety standards”. It is also proposed to use « sécurité » in 4.1.9.2.4 (e) (iii) [IAEA § 520], 6.4.23.3 [IAEA § 830], 6.4.23.4 [IAEA § 809] and 7.1.8.2 [§ 522].

Document ST/SG/AC.10/C.3/2019/57 (Switzerland): Transport by post of Class 7 excepted packages with limited activity

Switzerland submitted to the July 2019 session of the TDG Sub-Committee a document on this issue. At that time, the expert from Switzerland withdrew the document to conduct further consultations with national experts on Class 7 (see the report of the TDG Sub-Committee on its fifty-fifth session, ST/SG/AC.10/C.3/110, paragraph 8). A revised document (ST/SG/AC.10/C.3/2019/57) has been submitted for consideration of the TDG Sub-Committee at its December 2019 session.

Information related to the periodicity of amendments to the IAEA Regulations

A revised edition of the UN Model Regulations (the so-called “orange book”) is published every two years (odd years).

The provisions of SSR6-Rev.1 have been incorporated into the 21st revised edition of the UN Model Regulations (“Orange book”) published in 2019. ICAO, IMO and UNECE intergovernmental bodies will complete transposition of the provisions of the 21st revised edition of the Model Regulations into their respective legal instruments during the period 2019-2020, for mandatory application as from 2021.

Following its biennial cycle of work, the TDG Sub-Committee started in 2019, work on proposals of amendments to the 21st revised edition of the orange book. The work cycle will be completed in December 2020, when the Committee of Experts is expected to endorse the amendments to the orange book provisionally adopted by the TDG Sub-Committee during 2019-2020. The amendments endorsed by the Committee at its December 2020 session will be incorporated into the 22nd revised edition of the orange book to be published in 2021.

The working cycle of the TDG Sub-Committee and the cycle of amendments to the orange book is summarized in the figure below.

Figure: Cycle of work of the TDG Sub-Committee and periodicity of amendments to the orange book
When reconsidering the periodicity of amendments to SSR6-Rev.1 attention should be paid to the periodicity of amendments to the orange book, to ensure consistency in the applicability of provisions for transport of radioactive material through all modes of transport.

In case the provisions for transport of radioactive material in SSR6-Rev.1 are revised, the corresponding proposals for amendments to the orange book should be submitted in an official document to the TDG Sub-Committee, for consideration at its last-but-one session of the biennium of work (i.e. June-July session of even years). This means that the proposal should be sent to the secretariat of the TDG Sub-Committee by the deadline of submission of official documents to the June-July session (usually in April of even years).

For instance, if SSR6-Rev.1 is revised during 2019-2020, the deadline for submission of the corresponding related amendments to the 21st revised edition of the orange book will be April 2020. This would allow the TDG Sub-Committee to consider them at its July 2020 session and provide comments or request additional feedback if necessary. If additional feedback or clarifications are needed, there will still be an opportunity to consider and adopt the related proposals at the December 2020 session of the Sub-Committee (the last session of the biennium). All amendments adopted in December 2020 would then be incorporated into the 22nd revised edition of the orange book.

All proposals for amendment submitted after December 2020 will fall within a new biennial period of work (2021-2022) to be taken into account for the 23rd revised edition of the orange book to be published in 2023.
ANNEX II

Outcome of IMO’s sixth session of the Sub-Committee on Carriage of Cargoes and Containers (CCC 6) and its Editorial and Technical Group (E&T Group)

General

1 IMO’s Sub-Committee on Carriage of Cargoes and Containers (CCC), held its sixth session from 9 to 13 September 2019 and its thirty-second session of the Editorial and Technical Group (E&T) met from 16 to 20 September 2019.

2 During CCC 6 and E&T 32, decisions and discussions on the following issues are referenced below:

   .1 transport of naturally occurring radioactive material (NORM);

   .2 footnotes in the IMDG Code; and

   .3 training materials for the safe and efficient transport of IMDG Code Class 7 radioactive materials by sea.

Transport of naturally occurring radioactive material (NORM)

3 CCC 6 had the following documents for its consideration:

   .1 CCC 6/6/11 (Germany), referring to problems occurring in the context of transport of naturally occurring radioactive material (NORM) and proposing facilitation of such transports by a new special provision in the IMDG Code; and

   .2 CCC 6/INF.9 (Germany), containing a report on radiological risk assessment supporting the proposal in document CCC 6/6/11.

4 Following the discussion, CCC 6 noted the following views expressed on this matter:

   .1 the issues raised in document CCC 6/6/11 were important, but they should be considered by IAEA first; and
.2 disharmonization of requirements regarding different transport modes should be avoided.

5 After consideration, the Sub-Committee agreed to hold a decision on document CCC 6/6/11 in abeyance and requested the Secretariat to inform IAEA about this issue and follow its discussion, with a view to report the outcome from IAEA to the Sub-Committee.

Footnotes in the IMDG Code

6 The E&T 32 requested the Secretariat to inform IAEA on the following relevant matters:

.1 with regard to the first footnote ("INFCIRC/274/Rev.1, IAEA, Vienna (1980).") in 1.4.3.2.3, it should be considered if updating the reference to the latest version is appropriate and also whether it should be incorporated into the regulatory text; and

.2 with regard to the second footnote ("INFCIRC/225/Rev.5, IAEA, Vienna (2011).") in 1.4.3.2.3, it should be considered whether the text could be incorporated into the regulatory text.

Training materials for the safe and efficient transport of IMDG Code Class 7 radioactive materials by sea

7 CCC 6 recalled that CCC 5 had for its consideration document CCC 5/12/3 (WNTI) and held in abeyance a decision on whether the difficulties associated with the shipment of radioactive materials could be improved by the development of additional training materials. CCC 6 also recalled that CCC 5 had encouraged interested Member States and international organizations to work together, with a view to carrying out a gap analysis for the existing training materials, for submission to a future session of the Sub-Committee.

8 In this context, CCC 6 considered document CCC 6/13/1 (ICHCA, WNTI and NI), providing a list of categories where there was either no or insufficient training currently available through IMO and IAEA and supporting the development of an IMO model course. Following discussion, the Sub-Committee noted following views expressed on this matter:
.1 information on addressing difficulties associated with the shipment of radioactive materials should be provided in a training material, therefore the proposal in document CCC 6/13/1 should be supported;

.2 model course 1.10 provides the framework of a training for all different dangerous goods and there was no need to develop a separate one for radioactive materials; and

.3 it should be noted that IAEA has its e-learning course and IAEA should be invited to develop an e-learning course for sea transport.

9 In this context, CCC 6 agreed that a training material related to class 7 could be incorporated and enhanced in the existing model course 1.10 on Dangerous, Hazardous and Harmful Cargoes, when an update is initiated. Furthermore, CCC 6 instructed the Secretariat to consult with IAEA, with a view to develop an e-learning model for sea transport.

Action requested of the Committee

10 The Committee is invited to note the above information and take action, as appropriate, under the relevant agenda items.