EXTRA ORDINARY MEETING OF TRANSSC

REPORT OF WORKING GROUP 4

Working group Members
Fernando Zamora, Spain (Chairman)
Rick Boyle, USA (Secretary)
Guy Lourte, Belgium
Sverre Hornkjoel, Norway
Adelia Sahyun, Brasil
Sylvain Faille, Canada
Frank Koch, Switzerland
Victoria Aceña, Spain
Christel Fasten, Germany
Michael Wallin, Sweden
Sandro Trivelloni, Italy
Marc-Andre Charette, Canada
Madalina Budu, Russian Federation
Laura Butchins, UK
Andy Smith, UK
Manju Saini, India
Friedrich Kirchnawy, Austria
Akiko Konnai, Japan
Julie Krochmaluk, France
Ghislain Ferran, France
Boris Ilijas, Croatia
Bruno Desnoyers, WNTI

Task: Working group 4 was given the task of reviewing all regulatory change proposals and identified problems associated with hazard communication, classification of material, radiation levels (dose equivalencies), criticality safety issues and harmonization with the UN recommendations. In addition to the assigned papers, the working group also reviewed three papers which were forwarded from working group 1 and one paper that was brought forward by the member from India.

Terms of Reference: As defined in working paper presented by Secretariat and approved by Plenary

Working Procedures: The working group chairman led the group through a discussion of each proposal. The chairman offered the proposing member state the opportunity to present and explain their proposal and then facilitated the discussion. Once all issues and questions were raised and addressed, the chairman proposed a group recommendation of the proposal. That recommendation was discussed. Working group recommendations and a summary of key discussions are listed below. Recommendations are also found on the template that the Secretariat provided.
Identification of Safety Related Change Proposals: Under our terms of reference, the working group was requested to identify safety related changes. These proposals will be noted to TRANSSC 31 during their review of proposals and deliberations regarding entering into a regulatory revision process. The working group believes the following proposals address safety issues:

- B/2015/01; USA/2015/07; F/2015/13; and D/2015/07 regarding the proper selection of UN number and proper shipping name for radioactive shipments (should they be based on contents shipped or on package type shipped)
- F/2015/02, USA/2015/03 regarding the 20% radiation levels associated with Type A package performance.

Summary of Working Group Discussions:

B/2015/01; USA/2015/07; F/2015/13; and D/2015/07: The working group discussed these four proposals found two different regulatory options for TRANSSC to resolve. TRANSSC must decide whether the selection of the UN number and proper shipping name should be selected based on the radioactive contents being transported (Belgian, German and French proposals) or the package being transported (USA). The working group recommends TRANSSC consider the impact on the emergency response community; the implementation cost of the change; and the radiation exposure differences in each option prior to making their decision. Once TRANSSC makes this decision the appropriate proposals can be used to develop regulatory and guidance text for the next revision.

Summary of Discussion: Working group discussed and recognized that the regulations currently being interpreted to support the selection of UN number based on either package type selected or the material contained in the package. Since the use of overly conservative packaging (use of Type B packages for Type A quantity of material) or the practice downgrading a package (use of a Type B package as a Type A package) both lead to an equivalent level of safety, so whatever decision TRANSSC makes is acceptable.

Working group recommends that additional guidance material be developed with the intent of clarifying which practice was selected. The working group notes that this issue was raised in the previous review process (TRANSSC 28) as well as in these proposals and recommends that all these documents be used in development of guidance material.

CDN/2015/19; F/2015/17: The working group modified these two proposals and recommends “dose equivalent” replace “radiation level” throughout the regulations and associated guidance material.

CDN/2015/20: The working group accepted the proposal (somewhat editorial in nature)

CH/2015/01: The working group believes USA/2015/14 and USA/2015/15 properly and completed address this proposal
CH/2015/04: The working group did not accept the proposal. No changes to regulatory or advisory text required.

**Summary of Discussion:** The working group appreciated Swiss clarification that the term “thermal barrier” did not refer to an element of the package design but was an article applied by the carrier to protect the package during transport (example would be a tarp; cover to open top container, etc.). In their discussions, the working group highlighted that this issue was addressed in the regulations by a prohibition of covering the hazard communication. The working group also raised an issue with the scope of the change as it thought it would apply to closed conveyances too.

D/2015/01: The working group accepted the proposal for additional guidance material on radiation measurements

D/2015/08: The working group accepted the proposal clarifying the hazard communication requirements for unpackaged LSA and SCO.

D/2015/09: The working group accepted the proposal as it applied to para. 566(b) for road and rail transport. The working group did not accept the proposal as it applied to para. 575 for vessel transport.

**Summary of Discussion:** The working group accepted the change from “conveyance” to “vehicle or freight container” for road or rail transport since exclusive use provisions for road and rail could be maintained. The working group did not accept the change for the sea mode as it did not believe the level of safety could be maintained because exclusive use safeguards could not be applied to a vessel and there could be multiple freight containers with high radiation levels on a single vessel. Additional technical justification is needed to expand this principle to vessel.

F/2015/02, USA/2015/03: Working group agreed on the formation of a new group to study the issues raised in the French proposal. Working group accepted the US proposal and recommends the US review its data and analysis to determine if proposed threshold could be raised.

**Summary of Discussion:** The working group reviewed the French identified problem and agreed with many of the issues that it raised. Unfortunately, there was no detailed proposal in the original or subsequent submissions. Accordingly, the working group concurred with the TRANSSC 30 proposal that a CSM or other group of subject matter experts should analyze the issues raised. Regarding the US proposal, the working group found it to a practical approach to the problem. At the working group’s suggestion, the US will review its proposal and basis to determine if the default minimum value cited in the proposal could be raised. Several working group members offered their assistance to the US in revising their proposal.

F/2015/11: The working group treated this proposal as an identified problem. The working group did not agree with the French identified problem with para. 530 regarding the use of different package types than original specified by the country of design. The working group accepted the French problem relative to para. 541. To address this issue, the working group recommends that TRANSSC 31 consider
the establishment of a policy that Competent Authorities identify a “minimum” acceptable CSI to be identified in package designs and on shipping papers and shipments of fissile material shall use the most conservative of these minimum values. TRANSSC 31 or the Secretariat would be responsible for developing regulatory and guidance material to support this decision.

**F/2015/14:** The working group discussed and generally supported (subject to additional work and analysis) the French proposal to delete the restrictions for the use of tanks and other than portable tanks in equivalence of IP-2 or IP-3 packages (carriage of gases, liquids and solids). As there was no regulatory proposal and neither IAEA nor TRANSSC is proposing any work group for IP packagings, the proposal was rejected and should be returned to France for additional work.

**F/2015/17:** The working group discussed this proposal and made two recommendations. Regarding change proposal associated with the definition of design found in para. 220, the working group rejected the proposal for the following reasons: does not provide intended clarity; proposed additions are redundant to the requirements stated in the purpose of the transport regulations; additional items required cannot be confirmed or validated and testing is not specified; and there are likely numerous unintended and unforeseen consequences to this change. The working group was agreeable to inclusion of this issue in the guidance material and believes France should be offered the opportunity to present proposed guidance material to TRANSSC 31. Regarding the proposed change to “radiation level” to “equivalent dose”, the working group believes previously agreed Canadian proposal, CDN/2015/19 (incorrectly numbered CA/2015/19 by Secretariat), addresses this issue.

**IATA/2015/01:** The working group believes this proposal is best addressed (and is being addressed) by the fissile working group. This proposal is connected with a similar French proposal, F/2015/10.

**IATA/2015/02:** The working group believes regulations and guidance material should use the same PSN that the UN uses for UN 3507 material (sample quantities of uranium hexafluoride). The working group notes that this change may have already been incorporated in 2nd and later printings of SSR-6.

**IATA/2015/03:** The working group rejected the proposal and believes SSR para on packaging for other dangerous properties of the material is an adequate solution. Working group also believes it is inappropriate and would set a new precedent to include specific UN packaging requirements to address non radioactive hazards.

**IATA/2015/04:** The working group rejected the proposal. The group noted that the IAEA has not adopted similar hazard communication size requirements found in the UN orange book and does not believe it needs to set this precedent.

**IATA/2015/05:** The working group rejected this proposal. While some in the group noted that the requirement was of little to no value in packages with a mass significantly greater than 50 kg, the remainder of the group found the marking requirement to be a significant benefit to operators and handlers of packages with a mass slightly over 50 kg. Guidance material explaining the marking requirement is found in the guidance material.
**J/2015/16, J/2015/17, J/2015/18, J/2015/19:** The working group accepted J/2015/16, J/2015/17, J/2015/18, and J/2015/19 and believes harmonizing the size of the labels for Class 7 with the size specified in the UN recommendations used for labels for other dangerous goods. A minority of the working group members believed SSR-6 should minimize its regulatory text and figures for labels and replace this with UN orange book citations.

**J/2015/20:** The working recommends this issue be addressed by the Inter Agency Group (IAG). The working group did not understand the difference in border size for class 7 placard (5 mm vice 12.5 mm for all other hazard classes). While the ultimate decision belongs to TRANSSC, the working group was willing to accept the recommendation of the IAG regarding this proposal.

**RC/2015/03:** The working group rejected this proposal on the basis that a tank is a package so it would be redundant to include it in the list. Explanation of this fact is also found in guidance material in para. 523.1. Working group did not consider this proposal similar or a companion to Swiss proposal CH/2015/02 or CH/2015/03

**RC/2015/04:** The working group rejected this proposal because they did not believe it to be an editorial or minor change and there was no technical justification for inclusion of tanks in the listing.

**RC/2015/05:** The working group believes this proposal was addressed by Swiss proposals CH/2015/02 and CH/2015/03 which were discussed by Working Group 1.

**RC/2015/06:** The working group believes this proposal was addressed by Swiss proposals CH/2015/02 and CH/2015/03 which were discussed by Working Group 1.

**UK/2015/04:** The working group discussed the problem identified in the proposal but did not believe action at this point is needed. Half the working group members believe the issue is adequately addressed by the undeliverable shipments requirements, para. 583, currently in the regulations (provided additional guidance material is developed). All members of the working group agreed that the proposal should be returned to the UK with TRANSSC encouragement to study the issue and propose “consignee requirements” if necessary.

**USA/2015/03, F/2015/02 (REPEATED FROM F/2015/02):** Working group agreed on the formation of a new group to study the issues raised in the French proposal. Working group accepted the US proposal and recommends the US review its data and analysis to determine if proposed threshold could be raised.

**Summary of Discussion:** The working group reviewed the French identified problem and agreed with many of the issues that it raised. Unfortunately, there was no detailed proposal in the original or subsequent submissions. Accordingly, the working group concurred with the original proposal by TRANSSC 30 that a CSM or other group of subject matter experts should analyze the issues raised. Regarding the US proposal, the working group found it to a practical approach to the problem. At the working group’s suggestion, the US will review its proposal and basis to determine if the default minimum value cited in the proposal could be raised.
The working group discussed these four proposals found two different regulatory options for TRANSSC to resolve. TRANSSC must decide whether the selection of the UN number and proper shipping name should be selected based on the quantity of material being transported (Belgian, German and French proposals). Once TRANSSC makes this decision the appropriate proposals can be used to develop regulatory and guidance text for the next revision.

**Summary of Discussion:** Working group discussed and recognized that the regulations currently being interpreted to support the selection of UN number based on either package type selected or the material contained in the package. Since the use of overly conservative packaging (use of Type B packages for Type A quantity of material) or the practice downgrading a package (use of a Type B package as a Type A package) both lead to an equivalent level of safety, so whatever decision TRANSSC makes is acceptable.

Working group recommends that additional guidance material be developed with the intent of clarifying which practice was selected. The working group notes that this issue was raised in the previous review process (TRANSSC 28) as well as in these proposals and recommends that all these documents be used in development of guidance material.

**USA/2015/14 and USA/2015/15:** The working group unanimously accepted these proposals to restrict a carrier’s ability to determine the TI of an overpack to summing the TIs of the packages contained in the overpack (no longer allowed to use direct measurement from overpack).

**WNTI/2015/01:** The working group rejected this proposal. Reasons for rejecting included: lack of coordination with ICAO and IATA; major change with little technical justification; impact analysis of the change was not completed (unintended consequences, unintended authorization); and change needs to be studied in relation to the provisions for conveyances in the regulations.

**J/2015/28:** (Proposal and our recommendation are found in list of proposals assigned to WG 1) Issued discussed by Working Group 4: The working group rejected this proposal in its current format. Issues included: different labels on freight container than on packages; location of labels; specific recommended location for labels might not always be the best location, category labels on packages may differ than the category label on the flat rack due to the multiplication factor of the TI, issues with the number of placards and labels that are required on flat racks and vehicles. The proposal should be returned to Japan with our encouragement to address the issues and submit a revised proposal to TRANSSC 31.
Proposal regarding the placement and location of placards on an open sided freight container was accepted by Working Group

**COMMENTS RAISED BY INDIA** (proposals are not included in current review process so comments and discussions will be for future submission):

**Para. 533 could be modified as follows:** Each package of gross mass exceeding 50 kg shall have its permissible gross mass legibly and durably marked on the outside of the packaging or overpack.

**Summary of discussion:** Generally acceptable to working group but several members noted that the requirement was of little to no value in packages with a mass significantly greater than 50 kg, the remainder of the group found the marking requirement to be a significant benefit to operators and handlers of packages with a mass slightly over 50 kg. The working group also recommended additional

**Para. 563. could be modified as follows:** Packages, except for excepted packages or overpacks containing excepted packages, Category II - YELLOW or III - YELLOW packages or overpacks shall not be carried in compartments occupied by passengers, except those exclusively reserved for couriers specially authorized to accompany such packages or overpacks.

**Summary of discussions:** Working group requested additional information on: the technical basis or safety benefit of this proposal; the radiation protection basis of this proposal as White-I packages and excepted packages can have the same radiation level and this radiation level is the risk to passengers (not the quantity of material); consistency with transport of other dangerous goods.

**Para. 574 could be modified as follows:** In the case of road vehicles, no persons other than the driver and assistants shall be permitted in vehicles carrying packages, overpacks or freight containers bearing category II - YELLOW or III - YELLOW labels, other than excepted packages or overpacks containing excepted packages.

**Summary of discussions:** Working group requested additional information on: the technical basis or safety benefit of this proposal; the radiation protection basis of this proposal as White-I packages and excepted packages can have the same radiation level and this radiation level is the risk to passengers (not the quantity of material); consistency with transport of other dangerous goods.