

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

2 December 2013

Forty-fourth session

Geneva, 25 November – 4 December 2013

Item 5 (a) of the provisional agenda

Miscellaneous proposals for amendments to the Model Regulations on the Transport of Dangerous Goods: fuels in machinery or equipment

Report of the Working Group on fuels in machinery or equipment

Submitted by the Expert from Belgium on behalf of the Working Group

Introduction

1. During its 44th session the Sub-Committee, after discussion on the set of documents related to fuels in machinery or equipment, held a working group to review the issue.
2. The working group was tasked with establishing an overview of the discussion, identify problems and propose a stepwise approach on how to take the work forward.
3. The discussion was based on a discussion paper prepared by Belgium during the session, which is included in the annex and identifies the main issues.

Discussions

4. In the discussions, the Working Group considered the substantial work and information contained in documents 2013/67, INF.7, INF.27, 2013/44, INF.28 and the outcome of the discussions during this session on related issues such as hazard communication in class 9 (see INF.48 and INF.54) and articles containing dangerous goods (see INF.36)

Recommendations

5. The working group reached a consensus on the different steps to take the work forward to develop the regulations for fuels in machinery or equipment:

After discussion, the working group was of the opinion that the proposal contained in the discussion paper to separate vehicles from engines/machinery in UN 3166 by creating a new UN number in class 9 was appropriate. This new UN number was supported for various reasons: clarification of the scope of UN 3166, possibilities for the modes to treat vehicles and engines/machinery separately, no impact on UN 3363 which is under separate development, possibility to reuse the provisions of SP 363, possibility to assign new special provisions dealing with hazard communication consistent with the endorsed option 2 of INF.36, other fuels (e.g. methanol) can also be taken into account,... The following discussions were then based on how to develop this concept further.

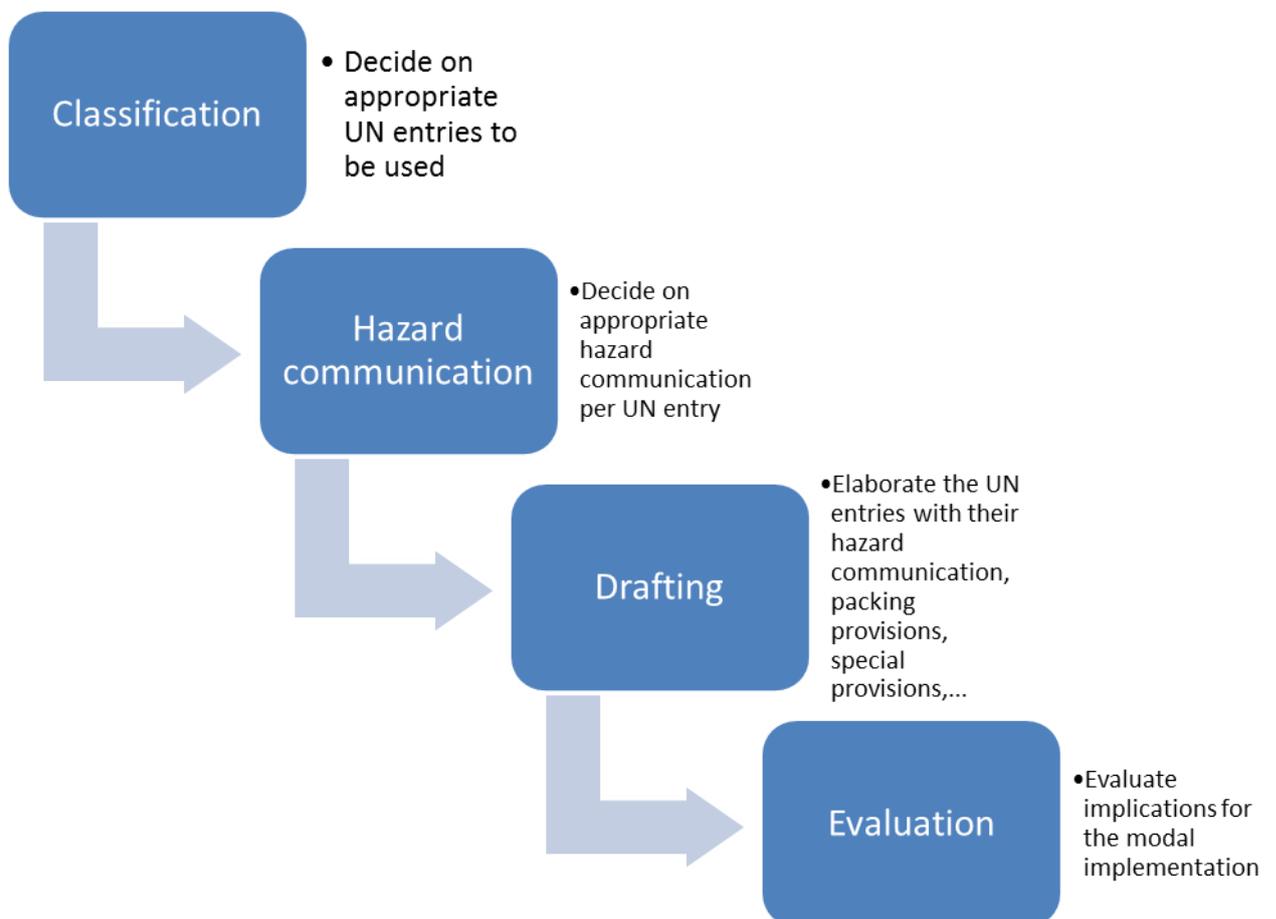
6. The working group recommended the following stepwise approach:
 - (a) Prepare a proposal to introduce a new UN XXXX applicable to engines/machinery powered by flammable liquids/flammable gases/fuels cells. This new UN number should incorporate the provisions of SP 363.
 - (b) Develop a proposal to include appropriate hazard communication (e.g. flammability risk label, mention in transport document,...), linked to different quantity thresholds. The working group agreed that communication of “subsidiary risks” (e.g. when also lithium batteries are contained in the same machinery) should be the subject of a separate special provision, also depending on developments for hazard communication for lithium batteries.
 - (c) Draft the necessary consequential amendments to various parts of the Regulations (definition of vehicles, SP 363, SP 301, SP 312, SP 240,...). For this work, the working group highlighted the following items for consideration:
 - Identification of the types of fuels (with different thresholds, different UN numbers,...)
 - Distinguishing between vehicles (e.g. self-propelled) and machinery
 - Fuels which are only environmentally hazardous
 - Evaluation of the already developed modal provisions when drafting new text (e.g. IMDG SP 961 and SP 962, ICAO provisions for vehicles/machinery containing lithium batteries,...)
 - Ongoing work for classification and hazard communication in class 9
7. Belgium and DGAC agreed to prepare a joint proposal for the 45th session of the UN sub-committee for the Transport of Dangerous Goods (June 2014).
8. Finally, the working group evaluated the last sentence of the German proposal contained in document 2013/44. A large majority considered that this was in line with the approach outlined above and supported the adoption of this sentence clarifying the classification of dual liquid/gas fuelled vehicles.

ANNEX:*Fuels in machinery and equipment – lunch time WG discussion paper*

- Documents for discussion: 2013/67 (DGAC), INF.7 (DGAC), INF.27 (Switzerland), 2013/44 (Germany), INF.28 (Switzerland)

- Main identified issues:
 - Different modal approaches
 - Difficulties/interpretation problems in classification
 - Appropriate hazard communication linked to quantity thresholds
 - Future developments (classification of articles, class 9 hazard communication,...)

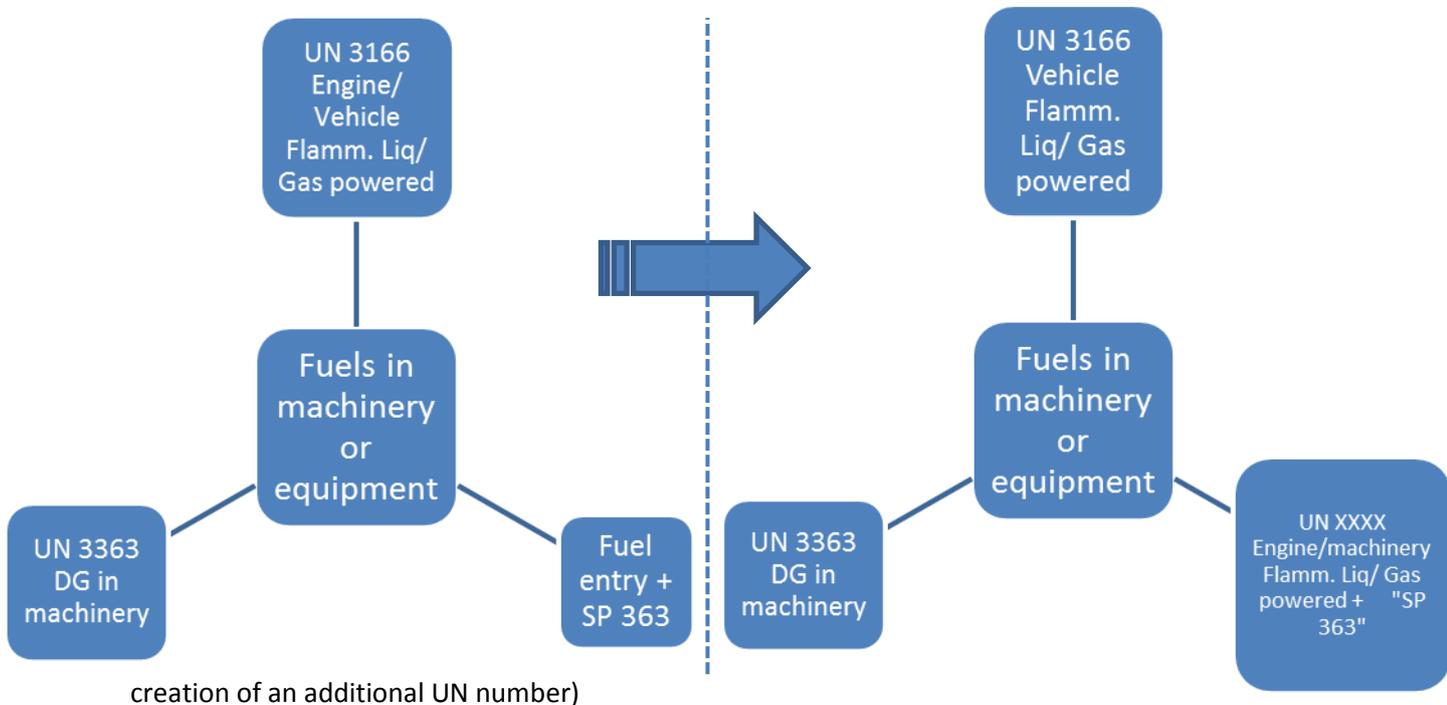
Proposed stepwise approach:



Possible way forward as gathered from the preliminary discussions:

Note: Alternatives and comments can be found in INF.7 and INF.27, where this last paper proposes simply to amend SP 363 without additional changes to the system.

1) Classification (variation of Option 1 of INF.7 with



Where:

- UN 3166 would apply only to vehicles (see also doc. 2013/44) and could no longer be used for machinery or equipment
- UN XXXX would apply to combustion engines and retain the principal provisions of SP 363, machinery such as generators, compressors,... powered by combustion also fall under this entry
- UN 3363 would apply as the most general entry to machinery/articles/... containing small quantities of dangerous goods (see also INF.36 for future development)

The presence of additional dangerous goods (other than fuels) in UN 3166 (e.g. hybrid vehicles) or UN XXXX (e.g. generator with fuel and a battery element) would not change the classification under these entries (see also doc. 2013/44), however this does not exclude the inclusion of additional measures (e.g. via a special provision, see also INF.27). The alternative in INF.27 retains only UN 3166 and 3363 as mentioned above, while retaining SP 363 linked to the fuels. Using the UN entries for the fuels is a different approach as the approach endorsed during this session in option 2 of INF. 36, which uses a class 9 entry. This should be discussed first.

2) Hazard communication

- UN XXXX could remain an entry under class 9, as is currently the case for UN 3166. This is compatible with other initiatives on hazard communication in class 9 (see also 2013/49 + INF.48).
- Hazard communication (e.g. flammable risk) could be implemented in the same way as the current SP 363 (which would be reassigned to UN XXXX), linked to quantity thresholds per general fuel type (e.g. class 3 PG II or III, overview of thresholds see INF.7, see also INF.27).
- The alternative in INF.27 retains SP 363 attributed to the class 3 entries for liquid fuels. SP 363 is currently not assigned to flammable gasses.

3) Drafting

- Points 1) and 2) should be elaborated in a draft proposal. Care should be taken to evaluate the best way to implement these points (e.g. via new special provision(s), by revising SP 363 and re-assigning it to UN XXXX, by revising SP 301 and SP 312 accordingly,...).

4) Evaluation

- All of the different modes will have to restructure some of their texts according to the above including the new UN number but have in this system all the flexibility to add mode specific special provisions (e.g. as currently done for sea or air transport) to unambiguous UN entries when deemed necessary for that mode (for overview see INF.7). For the alternative in INF.27, the implementation impact of only revising SP 363 is minimal.