

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

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**Global harmonization of transport of dangerous goods regulations
with the Model Regulations**

Harmonization with the United Nations Model Regulations

**Transmitted by the Sporting Arms & Ammunition Manufacturers'
Institute (SAAMI)**

I. Introduction

1. The expert from Switzerland submitted a proposal for the current session (ST/SG/AC.10/C.3/2012/7) dealing with harmonization between the United Nations Model Regulations and the ICAO Technical Instructions for the Safe Transport of Dangerous Goods (TI). The paper proposes to request the ICAO Dangerous Goods Panel (DGP) to reverse its decision not to apply the provisions of chapter 3.4 to 1.4S articles. Failing agreement to this by ICAO, the paper contemplates reinstating the complete marking and labelling scheme of Chapter 5.2 for goods of Division 1.4 Compatibility Group S marked as Limited Quantities (LQ) when shipped by land or inland waterway.

2. The DGP decision was made on the basis of debate upon a SAAMI proposal. The relevant portion of the DGP report is self explanatory, and is attached for convenience. As proposed by Switzerland, SAAMI would welcome reconsideration of the ICAO decision (see paragraph 4 below). However the ICAO decision does not lead to non-compliance with the Model Regulations, RID/ADR/ADN or the IMDG, as none of these regulations prohibit the use of excepted marking and labelling elements on packages of Limited Quantities. Furthermore, the question raised by Switzerland applies to all classes and is not limited to goods of Division 1.4 Compatibility Group S, and therefore the action requested of the DGP would not address all issues for surface modes. A clarifying note for all limited quantities shipped by air with the LQ ground mark might be helpful to enforcement personnel or freight forwarders.

II. Discussion

3. SAAMI submitted a proposal to ICAO to provide for limited quantity shipments of Division 1.4 compatibility group S by air (DGP/23-WP/36). Although this proposal was previously provisionally approved, upon deliberation, the Panel determined that the products could be shipped equivalently without restriction as a ground limited quantity and the air limited quantity designation was withheld. This is because, unlike all other modes, air limited quantities are solely excepted from package testing, while 1.4S products are still subject to package testing. There was no safety concern. An extract of the relevant portion of the DGP report is appended to the end of this paper.

4. The DGP focused on a substantial concern of SAAMI's where one State has a restriction limiting dangerous goods to accessible aircraft compartments, which an air limited quantity designation would have alleviated. The Panel felt that this issue would be better addressed in the one State affected (SAAMI is now pursuing this). This is a significant issue for SAAMI, but as the Swiss paper shows, there are other reasons why an air limited quantity designation would have been helpful. SAAMI would have preferred to have the "Y" limited quantities mark approved to avoid this and other possible issues arising in the future. Therefore SAAMI would support reconsideration by ICAO.

5. However, despite the foregoing, the situation identified by Switzerland applies to all classes, not just 1.4S, and an ICAO change would not address all scenarios. It may be little understood that the ICAO TI limited quantities system is separate and different from that of the UN Model Regulations. The maximum quantity listed in the Model Regulations applies to the inner package, however the maximum quantity in the ICAO Technical Instructions refers to the outer package. Nevertheless, these maximums are frequently the same amount or similar. The ICAO maximum quantity for Limited Quantities of any class rarely exceeds 5 kg, so that while the gross weight allowed is the same as the UN at 30 kg, the net amount of product is substantially reduced.

6. From this arises the fact that many surface limited quantities packages of all classes are not eligible for limited quantity designation by air, as 5 kg is not an optimal combination package size for many products in general commerce. It is unrealistic to assume that only smaller quantities pre-printed with the "Y" mark will be shipped by air. In reality it will often occur that a larger case of dangerous goods printed for surface limited quantity shipment will need to be shipped by air. In this case the surface legs of the multi-modal journey will qualify as limited quantity shipments, whereas the air leg will be shipped under the appropriate requirements of the class. The ICAO Technical Instructions allow and ignore the surface limited quantities mark per Part 5; 2.4.12. The DGP specifically noted this section in their debate:

“Part 5; 2.4.12 Markings required by other modes of transport

Markings required by other international or national transport regulations are permitted in addition to markings required by these Instructions, provided that they cannot be confused with or conflict with any markings prescribed by these Instructions, because of their colour, design or shape.”

7. There is no prohibition in the Model Regulations or modal regulations against a surface limited quantities package being marked with a package testing marking, UN number or proper shipping name, or being labelled with a hazard label. There is no regulatory requirement solely based on the presence of these marking and labelling elements, whether in the Model Regulations or ADR, for a transport document, tunnel restriction codes, driver's instructions, or driver's training. The presence of the surface limited quantity mark is evidence of a limited quantities shipment, irrespective of the presence of additional markings or labels. Similarly, a shipping paper for Limited Quantities, when required, shows the UN#, proper shipping name and hazard class in close association with the phrase "Limited Quantity", and this does not cause doubt whether the product is really a Limited Quantity.

8. Unlike the air mode, the benefits of limited quantity shipments by surface modes far exceed the package testing exception. The reduced costs realized by absence of labels, markings and transport documents, or exception from segregation requirements by vessel, are each well worthwhile individually on their own merit, and it should not be assumed that shippers will never place a package testing mark on a limited quantities package. Likewise, manufacturers who anticipate shipment of their products by all modes can frequently encounter situations where it may be desirable for a limited quantities package to display

permissive marking or labeling, similar to those conditions under which 1.4S limited quantities are shipped. There is no incompatibility arising from the permissive use of excepted hazard communication elements which accurately reflect the package contents.

III. Proposal

9. If the Sub-Committee believes that the Model Regulations would benefit from additional clarity on this point, SAAMI may prepare a proposal to clarify that permissive marking or labeling is allowed for limited quantities. However there is no urgency to resolve this matter during the current meeting, as the deadline has passed for changes to the pending edition of the ICAO Technical Instructions, and with regard to the Sub-Committee a proposal could be brought to the next meeting in the biennium if deemed helpful by a majority.

2.5.3 Packing Instruction for 1.4S Articles In Limited Quantities (DGP/23-WP/36)

2.5.3.1 Limited quantity provisions for certain consumer ammunition and power tools in Division 1.4S (UN 0012, UN 0014 and UN 0055) were incorporated into the Model Regulations. DGP-WG/11 agreed that the provisions should also be incorporated in the Technical Instructions in the interest of multimodal harmonization. It was agreed that a limited quantity packing instruction would be developed for DGP/23.

2.5.3.2 A proposal was presented to the meeting which included one “Y” packing instruction for all three articles, as it was felt that this would cover cartridges of comparable sizes regardless of which UN number was used. The proposal also included an increase to the maximum net quantity per package limit proposed at DGP-WG/11. It was reported that 90 to 95 per cent of the weight of these articles was inert material and that the actual quantity of dangerous goods in a 20 kg package would equal between one and two kilograms, highly interspersed in small robust articles without the power to ignite each other.

2.5.3.3 It was noted that the packing instruction in the proposal retained the UN specification codes for outer packagings. The reasoning behind this was questioned, as the only benefit in transporting dangerous goods in limited quantities for the air mode was an exception from the package testing. By requiring UN packaging, it was unclear what benefit limited quantities would provide.

2.5.3.4 It was suggested that this proposal was intended to address practical problems in transporting these articles in one State, and having the limited quantity marking applicable to the air mode would alleviate these problems. Some members on the panel felt very strongly that the general philosophy applied to limited quantities should not be changed based on the requirements in one State. This would cause confusion in training programmes and could delay acceptance checks.

2.5.3.5 Recognizing that a package of UN 0012, 0014 or 0055 prepared in accordance with the Technical Instructions would meet the limited quantity provisions of other modes, an alternate proposal was presented which removed provisions for limited quantities for these 1.4S substances and added a special provision providing for the limited quantity mark applicable to the air mode to appear on packages containing these articles.

2.5.3.6 The proposal was not agreed. Recognizing that the Instructions were meant for international application, the panel felt these issues would be better resolved in the one State where shippers encountered difficulties transporting these articles by air rather than through an amendment which went against the general philosophy of the limited quantity provisions in the Instructions. It was recognized that whilst there were no safety concerns identified for packages containing limited quantities of UN 0012, 0014 or 0055, there was no need for them to be marked as being in limited quantities for the air mode specifically. They could, however, bear the limited quantity marking of the other modes.

2.5.4 Fuel Cell Industry Update: International Electrotechnical Commission (IEC) 62282-6-100 International Standard For Micro Fuel Cells Corrigendum (DGP/23-WP/44 and Addendum)

2.5.4.1 Discussions on the publication by the IEC of an updated international standard for micro fuel cell safety and a new IEC specification for micro fuel cell safety using water reactive fuels were held at DGP-WG/11. The working group agreed in principle to replace references to IEC PAS 62282-6-1 with