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**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**  
(Nineteenth session, 2-6 July 2001,  
agenda item 2)

**ADDITIONAL PROVISIONS FOR THE TRANSPORT OF GASES**

**Transmitted by the expert from the United States of America**

1. The expert from the United States of America is interested in continuing the work to incorporate pressure receptacle requirements into the Model Regulations. While significant accomplishments were achieved during the previous biennium the work is far from complete. There are several issues that remain to be resolved based on matters that were not resolved during the previous biennium. It is anticipated that several pressure receptacle standards will be finalized by ISO TC 58 during the 2001-2002 biennium including composite cylinder standards. At a minimum the expert from the United States of America believes that the working group should meet to develop a plan of action for addressing the work to be completed in the current biennium. It is recommended that the working group be convened for approximately 2-3 days during the course of the Sub-Committee meeting. The annex to this document includes a list of issues which could be considered by the working group.

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Annex**Action Items to be considered by the Working Group on Pressure Receptacles and Multiple-Element Gas Containers**

The expert from the United States of America recommends the following items for consideration by the Working Group on Gas Receptacles and Multiple-Element Gas Containers:

No.	Issues to be Discussed at the Upcoming UN Working Group Meeting
1	Packing Instruction (P200)
2	Design and Construction of the UN Welded Steel Receptacles
3	Design and Construction of the Pressure Drums
4	Requalification of UN-Marked High Strength Seamless Steel Receptacles
5	Design and Construction of the UN Cryogenic Receptacles
6	Design and Construction of the UN Composite Receptacles
7	Design and Construction of the UN Welded Aluminum Receptacles
8	Requalification of UN-Marked Medium and Low Strength Seamless Steel, Welded Steel and Aluminum, Composite and Cryogenic Receptacles

Item No. 1 - It is recommended that the followings items that were discussed during the previous biennium be addressed during the July 2001 working group meeting since they were not satisfactorily resolved and since participants accepted action items to resolve them:

- Include LC<sub>50</sub> data for all toxic gases in Packing Instruction P200 - Action item accepted by Germany and CGA
- In Packing Instruction P200, validate the filling ratio for all of the listed liquified gases. Based on a comprehensive calculation that was performed by two large international gas companies (Praxair and Air Products), the filling ratios listed in the P200 table are significantly different for a number of gases and are yet to be resolved. For example, filling ratios listed in table P200 for Arsine, Carbonyl Fluoride and Methyl Mercaptan are 13.9% , 20% and 51% higher than filling factors calculated by the these gas companies. - Action item accepted by Germany and CGA
- In Packing Instruction (P200), adjust filling ratios of pressure receptacles that contain highly toxic gases based on LC<sub>50</sub> per proposals submitted by the expert from the United States of America at the 21st session of the Committee of Experts. The issue was discussed in the July and December 2000 working group meetings and BAM (Dr. Winfried Karl ) volunteered to review and confirm the values.

- In Packing Instruction P200, review the quantity limits for highly toxic gases per the proposals submitted to the working group by the expert from the United States of America.

Item No. 2 - The expert from the United States of America is prepared to adopt ISO standard 4706 if the proposed exceptions proposed by the US during the previous working group meetings are included in the UN Recommendations.

Item No. 3 - Discuss the latest CEN draft relative to pressure drums and North American ton tank requirements.

Item No. 4 - Discuss whether refillable seamless steel receptacles with tensile strength equal to or greater than 950 Mpa shall be periodically inspected by ultrasonic examination in accordance with the proposal submitted by the United States of America during the previous biennium.

Item No. 5 - Consider the requirements in the ICAO TI relative to open and closed cryogenic pressure receptacles for incorporation in the UN Model Regulations. Discuss ISO's progress in developing a cryogenic gas cylinder standard. The text adopted during the previous biennium does not adequately address these cylinders. P203 needs to be brought in line with the requirements in the ICAO TI.

Item No. 6 - A number of ISO standards relative to composite cylinders are very close to being published final. The secretariat of TC58 SC3 has completed the revisions to the three ISO 11119 drafts. These have been sent to committee for approval. The working group should consider incorporating these standards in the UN Model Regulation.

Item No. 8 - Delegations should provide requalification requirements applicable to each type of gas cylinder.

Pressure receptacle requalification marking requirements -The working group should consider the outcome of the South Africa TC 58 SC 4 meeting and should consider including requalification marking requirements in the UN Model Regulations in order to ensure consistency and mutual acceptance of requalification marks.

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