



**NOTA DE ESTUDIO**

**GRUPO DE EXPERTOS SOBRE MERCANCÍAS PELIGROSAS (DGP)**

**VIGESIMOSEGUNDA REUNIÓN**

**Montreal, 5 - 16 de octubre de 2009**

**Cuestión 2 del orden del día:** **Formulación de recomendaciones sobre las enmiendas de las *Instrucciones Técnicas para el transporte sin riesgos de mercancías peligrosas por vía aérea* (Doc 9284) que haya que incorporar en la edición de 2011-2012**

**PROYECTO DE ENMIENDA DE LAS INSTRUCCIONES TÉCNICAS  
PARA ARMONIZARLAS CON LAS RECOMENDACIONES  
DE LAS NACIONES UNIDAS — PARTE 3  
DISPOSITIVOS DE ALMACENAMIENTO  
CON HIDRURO METÁLICO (ONU 3468)**

(Nota presentada por USFCC)

**RESUMEN**

*Debido a la falta de recursos, sólo se han traducido el resumen y las enmiendas que figuran en el Apéndice*

En esta nota se propone aclarar el texto de la nueva Disposición especial A176 (propuesta en la DGP-WG09, véase DGP/22-WP/6) para que no haya confusión con el término “medios de transporte” que se ha copiado de la Reglamentación Modelo de las Naciones Unidas.

**Medidas recomendadas al DGP:** Se invita al DGP a revisar la nueva Disposición especial A176 según se presenta en el Apéndice.

**1. INTRODUCTION**

1.1 A new special provision was proposed at the DGP Working Group of the Whole Meeting in Auckland (DGP-WG09, 4 to 8 May 2009) (DGP/22-WP/3, paragraph 3.2.7 and DGP/22-WP/6 refer) to align with new Special Provision 356 from the UN Model Regulations, added to cover HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM, UN 3468. The new special provision is copied from DGP/22-WP/6 below:

A176 (356) Metal hydride storage system(s) installed in conveyances or in completed conveyance components or intended to be installed in conveyances must be approved by the appropriate national authority before acceptance for transport. The dangerous goods transport document must include an indication that the package was approved by the appropriate national authority or a copy of the appropriate national authority approval must accompany each consignment.

1.2 During DGP-WG09, some members of the DGP remarked regarding the word “conveyances” and questioned the meaning of this word and if it included aircraft, ships or other modes of transportation.

1.3 The Fuel Cell Industry wishes to clarify the meaning of the word “conveyances” by explaining the source of the requirement for competent authority approval.

1.4 New coverage for UN 3468, HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM to be included in the 16<sup>th</sup> Edition of the UN Model Regulations requires that metal hydride storage systems comply with ISO 16111. This compliance is for design, manufacture, testing and usage of the metal hydride storage system.

1.5 Specifically, the metal hydride storage systems must:

“meet the service conditions, design criteria, rated capacity, type tests, batch tests, routine tests, test pressure, rated charging pressure and provisions for pressure relief devices for transportable metal hydride storage systems specified in ISO 16111:2008 and their conformity and approval must be assessed in accordance with 6;5.2.5.”

1.6 Notwithstanding this requirement, the scope of ISO 16111 specifically does not cover metal hydride storage systems for use in vehicles. The following is extracted from the scope statement of ISO 16111:2008:

“This International Standard defines the requirements applicable to the material, design, construction, and testing of transportable hydrogen gas storage systems, referred to as "metal hydride assemblies" (MH assemblies) which utilize shells not exceeding 150 l internal volume and having a maximum developed pressure (MDP) not exceeding 25 MPa (250 bar). This International Standard only applies to refillable storage MH assemblies where hydrogen is the only transferred media. Storage MH assemblies intended to be used as fixed fuel-storage onboard hydrogen fuelled vehicles are excluded. This International Standard is intended to be used for certification purposes.”

Please notice the penultimate sentence above, repeated here:

“Storage MH assemblies intended to be used as fixed fuel-storage onboard hydrogen fuelled vehicles are excluded.”

This basically means that since metal hydride storage systems intended for use on vehicles are excluded from ISO 16111 coverage, the Technical Instructions should NOT require compliance (or permit compliance) by reference to ISO 16111.

1.7 A change to the new Special Provision A176 (356) might clarify the intent of this exclusion.

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## APÉNDICE

### Capítulo 3

#### DISPOSICIONES ESPECIALES

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Tabla 3-2. Disposiciones especiales

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- A176 (356) Los dispositivos de almacenamiento con hidruro metálico instalados en ~~medios de transporte~~ vehículos o en componentes completos de ~~medios de transporte~~ vehículos o destinados a ser instalados en ~~medios de transporte~~ vehículos deben ser aprobados por la autoridad competente antes de su aceptación para el transporte. Se indicará en el documento de transporte que el bulto ha sido aprobado por la autoridad competente o se adjuntará una copia de la aprobación de la autoridad competente a cada envío.

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Como alternativa, si se considera que este cambio se desvía demasiado respecto del texto de las Naciones Unidas, la inserción de “tales como vehículos de carretera” después de cada vez que figura “medios de transporte” podría ayudar a aclarar el significado.

— FIN —