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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

Thirty-fourth session
Geneva, 1-9 December 2008
Item 4 of the provisional agenda

LISTING, CLASSIFICATION AND PACKING

Transport of Nickel-Metal Hydride Batteries

**Submitted by the International Vessel Operators Hazardous Materials Association, Inc.
(VOHMA)¹**

Background

1. At the thirty-fourth session of the Sub-Committee of Experts on the Transport of Dangerous Goods, a proposal was submitted by Germany in ST/SG/AC.10/C.3/2008/37 and taken under consideration by this Sub-Committee regarding the transport of Nickel-metal hydride batteries. VOHMA had also submitted UN/SCETDG/33/INF.21 outlining the operational concerns that could be expected to occur if the proposal were adopted. Several delegations agreed with the VOHMA concerns, however, in the absence of a more acceptable solution to establishing regulatory controls over transport safety for these articles, the proposal to amend special provision SP304 in Chapter 3.3 of the UN Model Regulations was adopted. The result is that amended SP304 in the 16th revised edition will be applied to the UN identification number UN3028, assigned to the proper shipping name BATTERIES, DRY, CONTAINING

¹ In accordance with the programme of work of the Sub-Committee for 2007-2008 approved by the Committee at its third session (refer to ST/SG/AC.10/C.3/60, para. 100 and ST/SG/AC.10/34, para. 14).

POTASSIUM HYDROXIDE, SOLID which does not accurately describe the Nickel-metal hydride batteries at issue. Thus, while the provisions of amended SP304 may provide provisions for the safe transport of such batteries, there is no credible means for anyone searching the dangerous goods list at Chapter 3.2 to identify the specific Nickel-metal hydride batteries by an existing UN identification number in column (1), or by an existing proper shipping name in column (2) and subsequently apply the provisions of SP304 in column (6).

2. The proposed addition of regulatory text at the end of SP304 that limits the exemption provided therein includes a proposal to require a transport document including a declaration signed by the consignor even though the batteries do not meet the defining criteria for dangerous goods and are not listed in the dangerous goods list. As a non-regulated article, we question how the regulatory requirements can be applied to require a transport document and declaration signed by the consignor.

3. The Sub-Committee has, during the course of this biennium, discussed this issue during at least two sessions, with several delegations expressing trepidation regarding application of a regulatory requirement over a substance or article not identified as dangerous goods within the jurisdiction of the Model Regulations. While VOHMA appreciates the effort put forth by the expert from Germany and we share the concern regarding the safe transport of Nickel-metal hydride batteries as previously expressed in documents ST/SG/AC.10/C.3/2007/45 and ST/SG/AC.10/C.3/2008/37 we do not believe that the amendment adopted in principle at the previous session will provide adequate resolution of the problem.

4. As mentioned in the information document submitted by VOHMA at the last session (UN/SCETDG/33/INF.21), exposure to elevated temperature is not limited to sea transport and may be experienced in other modes as well as during storage incidental to transport. In order to provide consistency when offering these articles for multi-modal transport, it is recommended that the Sub-Committee consider any regulatory application of controls should address all modes of transport. Classification must be based on criteria set out in the UN Manual of Tests and Criteria.

5. The UN Manual of Tests and Criteria sets out the classification procedures, test methods and criteria for the nine (9) hazard classes as defined within the Model Regulations. In the general introduction, the manual provides the general conditions for testing and recommended tests and further states that if new tests are proposed for inclusion in the manual, the proposer should be able to provide justification that the new test is a significant improvement on the existing recommended test. Using the existing conditions and recommendations for testing, the Nickel-metal hydride batteries, under normal conditions of transport, would not appear to meet the defining criteria for any of the nine hazard classes.

6. Any material, substance or article that meets the defining criteria set out in the Manual of Tests and Criteria, must be identified by a UN identification number and proper shipping name that most accurately describes that material, substance or article. The existing entries for

batteries in column (2) of the dangerous goods list do not accurately describe the Nickel-metal hydride type of batteries and possibly other batteries with similar electrolytes, thus they are not otherwise specified (N.O.S.) in the list and a more accurate description is warranted.

Proposal

7. Laboratory testing should be conducted to determine at what temperature Nickel-metal hydride batteries in the packaging as offered for transport will react to cause a dangerous evolution of heat or will ignite. If the results of such analysis indicate that these temperatures could be expected to be experienced during normal conditions of transport, the Nickel-metal hydride batteries should be assigned to the proper hazard class which may be assumed to be class 9, miscellaneous hazard.

8. An appropriate UN identification number and proper shipping name should be assigned and an entry should be added to Chapter 3.2, the dangerous goods list and to the alphabetical index of substances and articles.

“UNXXXX, BATTERIES, N.O.S., electric storage, CLASS 9, PG III”

The appropriate description such as “Nickel-metal hydride” or “Nickel-cadmium” must be entered in parenthesis and should be indicated by SP274 in column (6).

9. Apply SP304 and SP274 in column (6) against the above UN number and Proper shipping name

10. Amend SP304 in Chapter 3.3 by adding new paragraph:

“(1) In the case of batteries which are not described by a specific entry in column (2) of the dangerous goods list and which may ignite or cause a dangerous evolution of heat at a temperature of xx° C or less the transport document(s) must include the entry “protect from sources of heat” and the unit load and/or cargo transport unit must be marked “Protect from sources of heat” in capital letters not less than 65 mm high.

(2) Batteries which will not react dangerously at temperatures normally incident to transportation and below xx° C which do not meet the definition for dangerous goods in any other hazard class are not subject to these regulations provided they are securely packed and protected against short-circuits.”
