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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-first session  
Geneva, 2-6 July 2007  
Item 11 of the provisional agenda

Sub-Committee of Experts on the Globally  
Harmonized System of Classification  
and Labelling of Chemicals

Thirteenth session  
Geneva, 9-11 July 2007  
Item 7 of the provisional agenda

#### OTHER BUSINESS

#### Report of the Secretary General

#### Note by the Secretariat

The secretariat reproduces hereafter the report of the Secretary General on the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals which has been submitted for consideration by the Council at its substantive session<sup>1</sup> of 2007, to be held in Geneva from 2 to 27 July (Agenda item 13 (m), 23 July p.m.).

The report is also available in Arabic, Chinese, French, Russian and Spanish on the website of the Transport Division (<http://www.unece.org/trans/danger/danger.htm>)

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<sup>1</sup> All the documentation (including the provisional agenda and the proposed programme of work) for the substantive session of the Council is available at: <http://www.un.org/ecosoc/>

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**Economic and environmental questions:  
transport of dangerous goods****Work of the Committee of Experts on the Transport  
of Dangerous Goods and on the Globally Harmonized  
System of Classification and Labelling of Chemicals****Report of the Secretary-General***Summary*

In accordance with Economic and Social Council resolution 645 G (XXIII), the Secretary-General reports biennially to the Council on the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals, and of its two subcommittees.

The present report concerns the work of the Committee of Experts during the biennium 2005-2006 and the implementation of Economic and Social Council resolution 2005/53.

In accordance with that resolution, the secretariat has published the fourteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*, the amendments to the fourth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria* and the first revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals (GHS)*.

All main legal instruments or codes governing the international transport of dangerous goods by sea, air, road, rail or inland waterway have been amended accordingly, with effect as from 1 January 2007, and many Governments have also transposed the provisions of the *Model Regulations* into their own legislation for domestic traffic for application as from 2007.

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\* E/2007/100.

Many Governments and international organizations have taken steps to revise existing national and international legislation in order to implement the GHS by the recommended target date of 2008.

The Committee adopted amendments to the *Model Regulations* and the *Manual of Tests and Criteria*, which consist mainly of new or revised provisions that concern the safe transport of radioactive material; harmonization and standardization of the transport of gases; harmonization with the GHS; the transport of infectious substances; transport of dangerous goods in excepted quantities; and new dangerous substances and articles.

The Committee also adopted amendments to the GHS that consist mainly in the clarification of the interpretation of the building block approach; classification criteria and hazard communication for some types of explosives; codification of hazard and precautionary statements; classification of toxic gas mixtures; criteria for the evaluation of sensitization/induction/elicitation and guidance on how to consider important factors in the classification for carcinogenicity and on the information to be included in section 14 (Transport information) of the Safety Data Sheets.

The Committee adopted a programme of work for the biennium 2007-2008; sessions for the Subcommittee of Experts on the Transport of Dangerous Goods, for the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals and for the Committee have been planned for the period 2007-2008 in accordance with Economic and Social Council resolution 1999/65.

The Committee is recommending a draft resolution on its work for adoption by the Economic and Social Council.

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## I. Draft resolution for adoption by the Economic and Social Council

1. The Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals recommends to the Economic and Social Council the adoption of the following draft resolution:

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

*The Economic and Social Council,*

*Recalling* its resolutions 1999/65 of 26 October 1999 and 2005/53 of 27 July 2005,

*Having considered* the report of the Secretary-General on the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals<sup>2</sup> during the biennium 2005-2006,

#### **A**

#### **Work of the Committee regarding the transport of dangerous goods**

*Recognizing* the importance of the work of the Committee for the harmonization of codes and regulations relating to the transport of dangerous goods,

*Bearing in mind* the need to maintain safety standards at all times and to facilitate trade, as well as the importance of this to the various organizations responsible for modal regulations, while meeting the growing concern for the protection of life, property and the environment through the safe and secure transport of dangerous goods,

*Noting* the ever-increasing volume of dangerous goods being introduced into worldwide commerce, and the rapid expansion of technology and innovation,

*Recalling* that the major international instruments governing the transport of dangerous goods by the various modes of transport and many national regulations are now better harmonized with the Model Regulations annexed to the Committee recommendations on the transport of dangerous goods, but that the uneven progress in the updating process of national inland transport legislation in some countries of the world remains, inter alia, a reason for regulatory disharmony at the worldwide level and represents a serious legislative obstacle to international multimodal transport,

*Aware* of activities initiated by the International Atomic Energy Agency in order to address the problems caused by the denial of shipments of radioactive material, including the creation of a senior-level steering committee including representatives from international organizations,<sup>3</sup>

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<sup>2</sup> E/2007/53.

<sup>3</sup> International Atomic Energy Agency General Conference resolution CG(50)RES/10, part B, para. 13.

*Sharing* the concern of the International Atomic Energy Agency at the negative consequences of these denials and related transport delays which render radioactive isotopes useless for their intended application, such as medical diagnosis, therapy, industrial applications, production of nuclear power and research,

1. *Expresses its appreciation* for the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals with respect to matters relating to the transport of dangerous goods, including their security in transport;

2. *Requests* the Secretary-General:

(a) To circulate the new and amended recommendations<sup>4</sup> on the transport of dangerous goods to the Governments of Member States, the specialized agencies, the International Atomic Energy Agency and other international organizations concerned;

(b) To publish the fifteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*<sup>5</sup> and the amendments to the fourth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria*<sup>6</sup> in all the official languages of the United Nations, in the most cost-effective manner, no later than the end of 2007;

(c) To make those publications available on the website of the Economic Commission for Europe,<sup>7</sup> which also provides secretariat services to the Committee, and to make them available also on CD-ROM;

3. *Invites* all Governments, the specialized agencies, the International Atomic Energy Agency and the other concerned international organizations to transmit to the secretariat of the Committee their views on the Committee's work, together with any comments that they may wish to make on the amended recommendations;

4. *Invites* all interested Governments, the regional commissions, the specialized agencies and the international organizations concerned to take into account, when developing or updating appropriate codes and regulations, the recommendations of the Committee;

5. *Requests* the Committee to study, in consultation with the International Maritime Organization, the International Civil Aviation Organization, the regional commissions and the intergovernmental organizations concerned, the possibilities of improving the implementation of the Model Regulations on the Transport of Dangerous Goods in all countries for the purposes of ensuring a high level of safety and eliminating technical barriers to international trade, including through the further harmonization of international agreements or conventions governing the international transport of dangerous goods, or a possible joint approach to the development of an effective international instrument on multimodal international transport of dangerous goods, as appropriate;

6. *Invites* United Nations programmes, specialized agencies and other intergovernmental organizations concerned with transport of dangerous goods

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<sup>4</sup> ST/SG/AC.10/34/Add.1 and Add.1/Corr.1, and Add.2.

<sup>5</sup> ST/SG/AC.10/1/Rev.15.

<sup>6</sup> ST/SG/AC.10/11/Rev.4/Amend.2.

<sup>7</sup> <http://www.unece.org/trans/danger/danger.htm>.

safety or transport facilitation, or by the negative impact of denials of shipments of radioactive material, as well as non-governmental organizations representing transport associations, to take action, as deemed appropriate, to facilitate transport and quick delivery of such material and to enhance cooperation in this respect with the International Atomic Energy Agency;

## **B**

### **Work of the Committee regarding the Globally Harmonized System of Classification and Labelling of Chemicals**

*Bearing in mind* that the World Summit on Sustainable Development at its 2002 session in Johannesburg, in paragraph 23 (c) of its Plan of Implementation,<sup>8</sup> encouraged countries to implement the Globally Harmonized System of Classification and Labelling of Chemicals as soon as possible with a view to having the system fully operational by 2008,

*Bearing also in mind* that the General Assembly, by its resolution 57/253 of 20 December 2002, endorsed the Johannesburg Plan of Implementation and requested the Economic and Social Council to implement the provisions of the Plan relevant to its mandate and, in particular, to promote the implementation of Agenda 21 by strengthening system-wide coordination,

*Noting with satisfaction:*

(a) That all United Nations programmes and specialized agencies concerned with chemical safety in the field of transport or of the environment, in particular the Economic Commission for Europe, the United Nations Environment Programme, the International Maritime Organization and the International Civil Aviation Organization, have taken appropriate steps to amend or consider amending their legal instruments in order to give effect to the Globally Harmonized System of Classification and Labelling of Chemicals by the 2008 target date or as soon as possible;

(b) That the International Labour Office and the World Health Organization are also taking appropriate steps to adapt their existing chemical safety recommendations, codes and guidelines to the Globally Harmonized System of Classification and Labelling of Chemicals, in particular in the areas of occupational health and safety, pesticide management and the prevention and treatment of poisoning;

(c) That Member States participating in the activities of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals, as well as the European Commission, are actively preparing revisions of national or regional legislation applicable to chemicals for implementation of the Globally Harmonized System of Classification and Labelling of Chemicals;

(d) That several United Nations programmes, specialized agencies and regional organizations, in particular the United Nations Institute for Training and Research, the International Labour Organization, the World Health Organization, the Economic Commission for Europe, Asia-Pacific Economic Cooperation, the Intergovernmental Forum on Chemical Safety, Governments, the European Commission and non-governmental organizations representing the chemical industry, have organized or contributed to multiple workshops,

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<sup>8</sup> *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex.

seminars and other capacity-building activities at the international, regional, subregional and national levels in order to raise administration, health sector and industry awareness and to prepare for implementation of the Globally Harmonized System of Classification and Labelling of Chemicals;

*Aware* that effective implementation by 2008 will require further cooperation between the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals and the international bodies concerned, continued efforts by the Governments of the Member States, cooperation with the industry and other stakeholders, and significant support for capacity-building activities in countries with economies in transition and developing countries,

*Recalling* the particular significance of the United Nations Institute for Training and Research/International Labour Organization/Organization for Economic Cooperation and Development Global Partnership for Capacity-Building to implement the Globally Harmonized System of Classification and Labelling of Chemicals for building capacities at all levels,

1. *Commends* the Secretary-General for the publication of the first revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals (GHS)* in the six official languages of the United Nations, in book form<sup>9</sup> and on CD-ROM,<sup>10</sup> and its availability together with related information material on the website of the secretariat of the Economic Commission for Europe;<sup>7</sup>

2. *Expresses its deep appreciation* to the Committee, United Nations programmes, specialized agencies and other organizations concerned for their fruitful cooperation and their commitment to the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals;

3. *Requests* the Secretary-General:

(a) To circulate the amendments<sup>11</sup> to the first revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals* to the Governments of Member States, the specialized agencies and other international organizations concerned;

(b) To publish the second revised edition<sup>12</sup> of the *Globally Harmonized System of Classification and Labelling of Chemicals* in all the official languages of the United Nations in the most cost-effective manner no later than the end of 2007, and to make it available on CD-ROM and on the website of the secretariat of the Economic Commission for Europe,<sup>7</sup> which provides secretariat services to the Committee;

4. *Invites* Governments who would not yet have done so to take the necessary steps, through appropriate national procedures and/or legislation, to implement the Globally Harmonized System of Classification and Labelling of Chemicals, as soon as possible, with a view to having the system fully operational by 2008;

5. *Reiterates its invitation* to the regional commissions, United Nations programmes, the specialized agencies and other organizations concerned to promote the implementation of the Globally Harmonized System of

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<sup>9</sup> United Nations publication, Sales No. E.05.II.E.13 and corrigenda.

<sup>10</sup> United Nations publication, Sales No. E/F.05.VIII.3.

<sup>11</sup> ST/SG/AC.10/34/Add.3 and Add.3/Corr.1.

<sup>12</sup> ST/SG/AC.10/30/Rev.2.

Classification and Labelling of Chemicals and, where relevant, to amend their respective legal international instruments addressing transport safety, workplace safety, consumer protection or the protection of the environment so as to give effect to the Globally Harmonized System of Classification and Labelling of Chemicals through such instruments;

6. *Invites* Governments, the regional commissions, United Nations programmes, the specialized agencies and other organizations concerned to provide feedback on implementation to the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals;<sup>13</sup>

7. *Encourages* Governments, regional commissions, United Nations programmes, specialized agencies and other relevant international organizations and non-governmental organizations, in particular industry, to strengthen their support of the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals by providing financial contributions and/or technical assistance to capacity-building activities in developing countries and to countries in transition;

## **C**

### **Programme of work of the Committee**

*Taking note* of the programme of work of the Committee for the biennium 2007-2008 as contained in paragraphs 43 and 44 of the report of the Secretary-General,<sup>2</sup>

*Noting* the relatively poor representation of experts from developing countries and countries with economies in transition in the work of the Committee and the need to promote their wider participation in its work,

1. *Decides* to approve the programme of work of the Committee;

2. *Stresses* the importance of the participation of experts from developing countries as well as from countries with economies in transition in the work of the Committee, and calls, in that regard, for voluntary contributions to facilitate their participation, including through support for travel and daily subsistence allowance, and invites Member States and international organizations in a position to do so to contribute;

3. *Requests* the Secretary-General to submit a report to the Economic and Social Council in 2009 on the implementation of the present resolution, the recommendations on the transport of dangerous goods and on the Globally Harmonized System of Classification and Labelling of Chemicals.

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<sup>13</sup> Information on GHS implementation by country and through international legal instruments, recommendations, codes and guidelines is available on the ECE website at: [http://www.unece.org/org/trans/danger/publi/ghs/implementation\\_e.html](http://www.unece.org/org/trans/danger/publi/ghs/implementation_e.html).

## II. Implementation of Economic and Social Council resolution 2005/53 of 27 July 2005

### A. Publications

2. As requested by the Economic and Social Council in its resolution 2005/53, the Secretary-General prepared the fourteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*.<sup>14</sup> The edition was published for official circulation and sale in Arabic (235 copies), Chinese (120 copies), English (4,455 copies), French (730 copies), Russian (250 copies) and Spanish (375 copies).

3. Amendment 1 to the fourth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria*<sup>15</sup> was published for official circulation and sale in Arabic (185 copies), Chinese (110 copies), English (2,510 copies), French (580 copies), Russian (165 copies) and Spanish (350 copies).

4. The first revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals (GHS)*,<sup>16</sup> was published for official circulation and sale in Arabic (225 copies), Chinese (125 copies), English (2,775 copies), French (695 copies), Russian (245 copies) and Spanish (325 copies).

5. Combined versions of the *Model Regulations* and the *Manual of Tests and Criteria*<sup>17</sup> and of the *Globally Harmonized System of Classification and Labelling of Chemicals* and the *Manual of Tests and Criteria*<sup>18</sup> were also published for sale (bilingual, English and French) on CD-ROM.

6. The *Model Regulations* and the *GHS* are available online in all languages on the website of the Economic Commission for Europe (ECE).<sup>19</sup>

### B. Implementation of the recommendations on the Transport of Dangerous Goods: Model Regulations

7. In its resolution 2005/53, the Economic and Social Council invited all interested Governments, the regional commissions, the specialized agencies and the international organizations concerned, when developing or updating appropriate codes and regulations, to take into account the recommendations of the Committee.

8. The provisions of the fourteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*<sup>14</sup> have been incorporated in the following international instruments:

(a) International Maritime Organization (IMO): International Maritime Dangerous Goods (IMDG) Code (amendment 33-06, of mandatory application for the 156 contracting parties to the International Convention for the Safety of Life at Sea (SOLAS 74) as from 1 January 2008, with the possibility of application on a voluntary basis as from 1 January 2007);

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<sup>14</sup> United Nations publication, Sales No. E.05.VIII.1.

<sup>15</sup> United Nations publication, Sales No. E.05.VIII.4.

<sup>16</sup> United Nations publication, Sales No. E.05.II.E.13 and corrigenda.

<sup>17</sup> United Nations publication, Sales No. E/F.05.VIII.2.

<sup>18</sup> United Nations publication, Sales No. E/F.05.VIII.3.

<sup>19</sup> <http://www.unece.org/trans/danger/danger.htm>.

(b) International Civil Aviation Organization (ICAO): 2007 edition of the Technical Instructions for the Safe Transport of Dangerous Goods by Air (mandatory application for the 189 contracting parties to the Convention on International Civil Aviation as from 1 January 2007);

(c) International Air Transport Association (IATA): 2007 (forty-seventh) edition of the Dangerous Goods Regulations (applicable as from 1 January 2007);

(d) Economic Commission for Europe: European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR 2007) (as from 1 July 2007) (42 contracting parties);

(e) Economic Commission for Europe: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN 2007), for application as from 1 January 2007;

(f) Intergovernmental Organization for International Carriage by Rail (OTIF): Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2007) (appendix C of the Convention concerning International Carriage by Rail) (applicable as from 1 January 2007) (42 contracting parties).

9. In the member States of the European Union, the provisions of ADR 2007 and RID 2007 will also apply to domestic traffic as from 1 July 2007.

10. The Common Market of the South (MERCOSUR) countries (Argentina, Brazil, Paraguay, Uruguay and Venezuela (Bolivarian Republic of)) are still working on the updating of the agreement on the inland transport of dangerous goods (*Acuerdo sobre Transporte de Mercancías Peligrosas en el MERCOSUR*, 1994), which is based on the seventh revised edition<sup>20</sup> of the *Recommendations on the Transport of Dangerous Goods*, RID and ADR.

11. The Andean Community (*Comunidad Andina*) (Bolivia, Colombia, Ecuador and Peru) have developed draft regulations based on the thirteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations*,<sup>21</sup> the ADR 2005 and the RID 2005, which are still under consideration.

12. The Economic and Social Commission for Asia and the Pacific published, in 1997, *Guidelines for the Establishment of National and Regional Systems for Inland Transportation of Dangerous Goods*,<sup>22</sup> recommending the implementation of the recommendations on the transport of dangerous goods. The transport ministers of the Association of Southeast Asian Nations (ASEAN) signed, on 20 September 2002, Protocol No. 9 to the ASEAN Framework Agreement on the Facilitation of Goods in Transit. The Protocol provides for the simplification of procedures and requirements for the transit transport of dangerous goods in ASEAN countries, using the *Recommendations on the Transport of Dangerous Goods: Model Regulations* and the ADR.

13. In 1999, the Central African Economic and Monetary Community (CEMAC) (Cameroon, Central African Republic, Chad, the Congo, Equatorial Guinea and Gabon) adopted regulations concerning the transport of dangerous goods that are partly based on old provisions of the ADR but that are not fully in line with the *Recommendations on the Transport of Dangerous Goods: Model Regulations*.

<sup>20</sup> United Nations publication, Sales No. E.91.VIII.2.

<sup>21</sup> United Nations publication, Sales No. E.03.II.E.25 and Corr.1.

<sup>22</sup> United Nations publication, Sales No. E.98.II.F.49.

14. With respect to domestic inland transport of dangerous goods in individual countries, except as described above, implementation of the recommendations on the transport of dangerous goods may vary considerably depending on the national procedures for enacting law or updating regulations. For example, the regulations applicable in the United States of America (Title 49 of the Code of Federal Regulations) are normally updated on a yearly basis, and they have been updated to reflect the fourteenth revised edition of the *Recommendations on the Transport of Dangerous Goods*,<sup>22</sup> with very few exceptions. The Canadian regulations are still based on the eleventh revised edition.<sup>23</sup> The *Australian Code for the Transport of Dangerous Goods by Road and Rail* (1998 version) is based on the ninth revised edition of the *Recommendations*,<sup>24</sup> but a new version, based on the thirteenth revised edition of the *Recommendations* is under consideration. The twelfth revised edition<sup>25</sup> of the *Recommendations* has been adopted as a national standard in Malaysia and has been implemented through national legislation in Brazil and Thailand.

15. Although international transport of dangerous goods is facilitated by the harmonization of the major international conventions or agreements concerning transport of dangerous goods with the Model Regulations, and their simultaneous updating, the fact that certain national regulations applicable to inland transport are not brought into line simultaneously, or completely, is still causing problems in international trade, in particular in the case of multimodal transport. For that reason, the Committee maintained in its draft programme of work an item on further measures to facilitate global harmonization of regulations on the transport of dangerous goods with the *Recommendations on the Transport of Dangerous Goods: Model Regulations*.

### **C. Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals**

16. The World Summit on Sustainable Development at its 2002 session in Johannesburg, in paragraph 23 (c) of its Plan of implementation,<sup>26</sup> encouraged countries to implement the GHS as soon as possible with a view to having the system fully operational by 2008.

17. Since the GHS addresses several sectors (transport, consumers, occupational health and safety, environment), its effective implementation requires significant efforts from Member States for amending many existing legal texts concerning chemical safety in each sector, or enacting new legislation.

18. As the first version of the GHS was published in 2003, with 2008 as the recommended implementation deadline, it is still too early to evaluate precisely to what extent it has been implemented worldwide.

19. In the transport sector, the *Recommendations on the Transport of Dangerous Goods: Model Regulations* have already been amended to reflect the relevant GHS provisions, and all major international instruments listed in paragraph 8 have also been amended accordingly for effective application in

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<sup>23</sup> United Nations publication, Sales No. E.99.VIII.1 and corrigenda.

<sup>24</sup> United Nations publication, Sales No. E.95.VIII.1.

<sup>25</sup> United Nations publication, Sales No. E.01.VIII.4 and corrigenda.

<sup>26</sup> *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex.

2007, as well as all national regulations which are based on these instruments or which are regularly updated on the basis of the Model Regulations.

20. In the other sectors, the situation is more complex because implementation will require the amendment or revision of a considerable number of different legal texts and guidelines for application. Nevertheless, the secretariat has placed on its website<sup>27</sup> all information it has collected from countries on the status of implementation. The website provides the possibility for government administrations to update this information or to submit new information for the various sectors concerned. **All countries are therefore invited to provide such information, as indicated in paragraph 6 of part B of the draft resolution contained in paragraph 1 above.**

21. The review of existing legislation has been initiated in all countries which are members of the GHS Subcommittee, and for the European Union, by the European Commission. Direct technical advice and expertise have been provided to several other Member States by some members and by the secretariat.

22. Several countries and non-governmental organizations that are not members of the GHS Subcommittee organized workshops and seminars on the GHS, addressed to different sectors (transport, industry, customs and administration), for example:

(a) National GHS workshop organized by the Ministry of Environment of Ecuador (Quito, Cuenca and Guayaquil, March 2006);

(b) Fifth Congress on transport of dangerous substances, organized by the Colombian Safety Council, which included an introduction to the GHS and its relationship with transport regulations (Bogotá, September 2006).

23. With the financial support of several Member States, the European Commission and the private sector, several additional capacity-building and training activities were carried out, with the participation of experts of the GHS Subcommittee, by various organizations or programmes, in particular:

(a) United Nations Institute for Training and Research/International Labour Organization (UNITAR/ILO) global GHS capacity-building programme and World Summit on Sustainable Development (WSSD) Global Partnership for Capacity-Building to Implement the GHS:

(i) National GHS workshops and/or planning meetings in Cambodia, the Gambia, Indonesia, the Lao People's Democratic Republic, Malaysia, Nigeria, the Philippines, Senegal and Thailand;

(ii) Regional workshops on chemical hazard communication and GHS implementation: for ASEAN countries (the Philippines, October 2005), for Central and Eastern Europe and Central Asia (Slovenia, October 2006) and for countries of the Arab region (Egypt, October 2006);

(iii) Global thematic workshop on capacity-building to implement the GHS (South Africa, November 2005);

(iv) GHS side events at: First meeting of the Conference of the Parties (COP-1) to the Stockholm Convention, in Uruguay (May 2005); the International Conference on Chemicals Management (ICCM) in Dubai (February 2006); fifth session of the Intergovernmental Forum on Chemical Safety (Forum V), in Hungary (September 2006); and third

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<sup>27</sup> [http://www.unece.org/trans/danger/publi/ghs/implementation\\_e.html](http://www.unece.org/trans/danger/publi/ghs/implementation_e.html).

meeting of the Conference of the Parties (COP-3) to the Rotterdam Convention in Geneva (October 2006);

(v) Publication of a roster of experts on the GHS on the website of UNITAR;

(vi) Development of resource materials: guidance document on capacity-building for GHS implementation; comprehensibility testing modules; World Summit on Sustainable Development (WSSD) Global GHS Partnership annual reports;

(vii) Eighth, ninth, tenth and eleventh meetings of the capacity-building programme advisory group (PAG), which were held back-to-back with those of the GHS Subcommittee;

(b) Asia-Pacific Economic Cooperation (APEC):

Seminar on GHS implementation and technical assistance (Thailand, September 2006);

(c) World Health Organization/International Labour Organization/United Nations Environment Programme (WHO/ILO/UNEP) International Programme on Chemical Safety (IPCS):

(i) International workshop on the GHS for first aid and poison centres;

(ii) Workshops to promote GHS through the implementation of the IPCS/ILO International Chemical Control Toolkit (in cooperation with UNITAR/ILO);

(iii) Development of an implementation plan to assist countries in the implementation of the GHS through the use of the Concise International Chemical Assessment Documents (CICADS), the WHO Recommended Classification of Pesticides by Hazard,<sup>28</sup> and the International Chemical Safety Cards (jointly with ILO);

(iv) Awareness-raising activities among the health sector and peak professional bodies, such as regional associations of poison control centres and clinical toxicologists, and development of training materials.

24. The GHS Subcommittee has also continued its cooperation with treaty bodies that administer certain international conventions dealing with specific aspects of chemical safety in order to facilitate the implementation of the GHS through such conventions (Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention); Montreal Protocol on Substances that Deplete the Ozone Layer; Stockholm Convention on Persistent Organic Pollutants; Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; and Convention on the Transboundary Effects of Industrial Accidents (see also para. 41 above).

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<sup>28</sup> See the *WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification, 2004* (Geneva, World Health Organization, 2005).

### III. Work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals during the biennium 2005-2006

#### A. Meetings held

25. The following meetings were held during the biennium 2005-2006:

(a) Subcommittee of Experts on the Transport of Dangerous Goods: twenty-seventh session, 4 to 8 July 2005 (ST/SG/AC.10/C.3/54); twenty-eight session, 28 November to 6 December 2005 (ST/SG/AC.10/C.3/56 and Add.1); twenty-ninth session, 3 to 11 July 2006 (ST/SG/AC.10/C.3/58 and Add.1 and 2); and thirtieth session, 4 to 12 December 2006 (ST/SG/AC.10/C.3/60);

(b) Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals: ninth session, 11 and 12 July 2005 (ST/SG/AC.10/C.4/18); tenth session, 7 and 8 December 2005 (ST/SG/AC.10/C.4/20); eleventh session, 12 to 14 July 2006 (ST/SG/AC.10/C.4/22); and twelfth session, 12 to 14 December 2006 (ST/SG/AC.10/C.4/24);

(c) Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals: third session, 15 December 2006 (ST/SG/AC.10/34 and Add.1-3 and corrigenda).

26. The following 29 countries participated in the work of the Committee as full members of the Subcommittee of Experts on the Transport of Dangerous Goods (TDG Subcommittee), of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS Subcommittee), or of both subcommittees: Argentina; Australia; Austria; Belgium; Brazil; Canada; China; the Czech Republic;<sup>29</sup> Denmark;<sup>30</sup> Finland; France; Germany; Ireland;<sup>30</sup> Italy; Japan; Mexico;<sup>29</sup> the Netherlands; New Zealand;<sup>30</sup> Norway; Poland;<sup>29</sup> Portugal;<sup>29</sup> Qatar;<sup>30</sup> the Russian Federation;<sup>29</sup> Senegal;<sup>30</sup> South Africa; Spain; Sweden; the United Kingdom of Great Britain and Northern Ireland; and the United States of America.

27. India and Morocco, full members of the TDG Subcommittee, Greece, Serbia, Ukraine and Zambia, full members of the GHS Subcommittee, and Iran (Islamic Republic of), full member of both Subcommittees, did not participate.

28. The Governments of Bulgaria,<sup>29</sup> Cambodia,<sup>30</sup> Cyprus,<sup>30</sup> Fiji,<sup>29</sup> the Gambia,<sup>30</sup> Indonesia,<sup>30</sup> Kenya, the Lao People's Democratic Republic,<sup>30</sup> Mexico,<sup>30</sup> New Zealand, Nigeria,<sup>30</sup> the Philippines,<sup>30</sup> the Republic of Korea,<sup>30</sup> Romania, the Russian Federation,<sup>30</sup> Slovenia,<sup>30</sup> Switzerland and Thailand,<sup>30</sup> were represented by observers. The Commission of the European Communities, 12 specialized agencies and intergovernmental organizations and 47 non-governmental organizations also participated.

29. Liaison was maintained with the international bodies or organizations responsible for individual modes of transport, in particular the Economic Commission for Europe and the Economic and Social Commission for Asia and the Pacific (for inland transport in those regions), the International Civil

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<sup>29</sup> TDG Subcommittee only.

<sup>30</sup> GHS Subcommittee only.

Aviation Organization, the International Maritime Organization and the Intergovernmental Organization for International Carriage by Rail.

30. The Committee paid special attention to the coordination of its own activities with those of other international organizations whose activities impinge on the field of transport of dangerous goods or of classification of chemicals, such as the International Atomic Energy Agency (IAEA), the Food and Agriculture Organization of the United Nations (FAO), ILO, WHO, UNEP, the Universal Postal Union (UPU), UNITAR and the Organization for Economic Cooperation and Development (OECD), to ensure that their work would complement, rather than duplicate or clash with, its own activities and recommendations.

31. Secretariat services were provided by the secretariat of the Economic Commission for Europe.

## **B. Work of the Subcommittee of Experts on the Transport of Dangerous Goods**

32. During the biennium 2005-2006, the Subcommittee discussed various questions related to its terms of reference in accordance with the programme of work described in document E/2005/53, paragraph 41 (a).

33. On the basis of that work, the Committee adopted amendments<sup>31</sup> to the fourteenth revised edition of the *Recommendations on the Transport of Dangerous Goods: Model Regulations* and to the fourth revised edition of the *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria* consisting mainly of new or revised provisions concerning:

(a) The listing and classification of some existing and new dangerous substances and articles and related packing methods and the revision of some packing requirements;

(b) The harmonization and standardization of provisions concerning the transport of gases;

(c) The transport of infectious substances (including new provisions for the manufacturing and testing of packagings);

(d) The harmonization of the Model Regulations with the IAEA regulations for the safe transport of radioactive material;

(e) The transport of dangerous goods in excepted quantities;

(f) New performance testing requirements for Intermediate Bulk Packagings (IBCs) (Vibration test);

(g) Test requirements for lithium batteries and fuel cells;

(h) The harmonization of the Model Regulations with the GHS.

34. The Subcommittee developed Guiding Principles intended to explain the rationale behind the provisions contained in the *Model Regulations* and to guide regulators when assigning transport requirements to specific dangerous goods. It considered that this work, as well as the study of possible measures to facilitate global harmonization of transport of dangerous goods regulations with the Model Regulations, should be pursued in the biennium 2007-2008.

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<sup>31</sup> ST/SG/AC.10/34/Add.1 and Add.1/Corr.1, and Add.2.

35. The action to be taken by the Economic and Social Council, recommended by the Committee with respect to the work of the Subcommittee of Experts on the Transport of Dangerous Goods, is reflected in part A, paragraphs 1 to 6, of the draft resolution contained in paragraph 1 above.

### C. Work of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals

36. During the biennium 2005-2006, the Subcommittee discussed various questions related to its terms of reference in accordance with its programme of work described in document E/2005/53, paragraph 41 (b).

37. On the basis of that work, the Committee adopted amendments<sup>32</sup> to the first revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals* intended to clarify or to complement it, concerning, in particular, the following:

- (a) Guidance on the interpretation of the building block approach;
- (b) Classification criteria and hazard communication tools for some types of explosives;
- (c) Classification of toxic gas mixtures;
- (d) Criteria for the evaluation of sensitization/induction/elicitation;
- (e) Guidance on how to consider important factors in determining the carcinogenic potential of chemicals;
- (f) Codification and use of hazard and precautionary statements;
- (g) Guidance for the preparation of safety data sheets.

38. The Subcommittee considered that the work in the following areas should be pursued in the biennium 2007-2008: development of classification criteria for substances, which in contact with water, release toxic or corrosive gases; validation of the transformation/dissolution protocol for metals; strong versus weak sensitizers; chronic aquatic toxicity hazards; terrestrial environmental hazards; ozone-depleting substances; and guidance for the labelling of very small packagings.

39. The Subcommittee also considered that the work on carcinogenicity potency estimation and on the amendment of the classification criteria for toxic to reproduction substances to consider cut-off levels related to relative potency of chemicals should be discontinued.

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<sup>32</sup> ST/SG/AC.10/34/Add.3 and Add.3/Corr.1.

40. The Subcommittee kept under review progress made in the implementation of the GHS on the basis of reports submitted by its members and participating intergovernmental and non-governmental organizations.<sup>33</sup>

41. The Subcommittee continued cooperation with treaty bodies established under international conventions concerning chemical safety to promote the implementation of the GHS through such conventions (see also para. 24 above).

**42. The action to be taken by the Economic and Social Council, recommended by the Committee with respect to the work of the Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals, is reflected in part B, paragraphs 1 to 7 of the draft resolution contained in paragraph 1 of the present report.**

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<sup>33</sup> Information on GHS implementation by country and through international legal instruments, recommendations, codes and guidelines is available on the ECE website at: [http://www.unece.org/trans/danger/publi/ghs/implementation\\_e.html](http://www.unece.org/trans/danger/publi/ghs/implementation_e.html).

#### **IV. Programme of work and schedule of meetings for the biennium 2007-2008**

43. The Committee agreed that the programme of work for the biennium 2007-2008 should be as follows:

- (a) Subcommittee of Experts on the Transport of Dangerous Goods:
  - (i) Routine listing, classification and related packaging/tank issues;
  - (ii) Performance of packagings, including IBCs;
  - (iii) Measures to enhance multimodal harmonization of provisions relating to the transport of dangerous goods in limited quantities;
  - (iv) Provisions for the safe transport of fumigated freight containers and dry ice;
  - (v) Provisions for the transport of dangerous goods in open cryogenic receptacles;
  - (vi) Use of electronic data interchange (EDI) for documentation requirements;
  - (vii) Proposals for facilitation of the harmonization of IAEA regulations for the safe transport of radioactive material with the Model Regulations;
  - (viii) Further measures to facilitate global harmonization of transport of dangerous goods regulations with the Model Regulations;
  - (ix) Cooperation with the GHS Subcommittee for any work related to classification criteria for physical hazards, e.g. chemically unstable substances, substances having explosive properties and implementation of the GHS in transport;
- (b) Subcommittee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals:
  - (i) Continue activities to determine when guidance may be needed on the application of the GHS (e.g. to pursue a harmonized approach to the classification of petroleum substances);
  - (ii) Updating of the GHS:
    - a. Work on physical hazards:
      - i. Develop a proposal for the classification and labelling of chemically unstable gases including a test method intended to evaluate chemical instability of gases or gas mixtures (in cooperation with the TDG Subcommittee);
      - ii. Consider possible solutions to address the classification and labelling of substances having explosive properties and desensitized explosives (in cooperation with the TDG Subcommittee);
    - b. Work on health hazards:
      - i. Pursue work on classification criteria for substances which, in contact with water, release toxic or corrosive gases;
      - ii. Continue to examine the available information concerning strong versus weak sensitizers and, if appropriate, propose revisions to the classification criteria for respiratory and/or dermal sensitization (in cooperation with OECD);

- c. Work on environmental hazards:
    - i. Complete the work on the improvement of the classification criteria to accommodate chronic toxicity to aquatic organisms (in cooperation with OECD);
    - ii. Pursue the work on the development of criteria for the classification and labelling of substances hazardous for the terrestrial environment (in cooperation with OECD);
    - iii. Complete the work on the development of classification and labelling criteria for ozone-depleting substances and mixtures in cooperation with the Conference of Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (in cooperation with OECD);
    - iv. Complete work on validation of the transformation/dissolution protocol for metals (in cooperation with OECD);
  - d. Work on hazard communication issues:
    - i. Pursue work to further improve annexes 1, 2 and 3 of the GHS, including consideration of the development of combined hazard statements and combined precautionary statements, and proposals to eliminate current redundancies in some precautionary statements;
    - ii. Pursue work on guidance for the labelling of very small packagings;
  - e. Implementation of the GHS:
    - i. Continue the activities to facilitate the coordinated implementation of the GHS;
    - ii. Continue the cooperation with the Open-ended Working Group of the Basel Convention for matters of common concern;
    - iii. Strengthen and increase cooperation with United Nations programmes, specialized agencies, regional, governmental and intergovernmental organizations as well as non-governmental organizations responsible for the administration of international agreements and conventions dealing with the management of chemicals, so as to give effect to the GHS through such instruments;
    - iv. Review reports on training and capacity-building activities;
    - v. Provide assistance to United Nations programmes and specialized agencies involved in training and capacity-building activities, such as UNITAR, ILO, FAO and WHO/IPCS, through the development of guidance materials, advice with respect to their training programmes and identification of available expertise and resources;
    - vi. Continue to explore a working relationship with WHO/IPCS to assist implementation of the GHS in relevant activities and instruments among global health partners.
44. Bearing in mind that, in accordance with Economic and Social Council resolution 1999/65, the maximum number of meeting days allocated to the Committee and its subsidiary bodies is 38 (76 meetings), the Committee agreed that the schedule of meetings for the period 2007-2008 should be as follows:

**2007**

2-6 July 2007: TDG Subcommittee, thirty-first session: 10 meetings

9-11 July 2007: GHS Subcommittee, thirteenth session: 5 meetings

3-12 (a.m.) December 2007: TDG Subcommittee, thirty-second session: 15 meetings

12 (p.m.)-14 December 2007: GHS Subcommittee, fourteenth session: 5 meetings

(Total: TDG Subcommittee: 25 meetings; GHS Subcommittee: 10 meetings)

**2008**

30 June-9 (a.m.) July 2008: TDG Subcommittee, thirty-third session: 15 meetings

9 (p.m.)-11 July 2008: GHS Subcommittee, fifteenth session: 5 meetings

1-9 (a.m.) December 2008: TDG Subcommittee, thirty-fourth session: 13 meetings

9 (p.m.)-11 December 2008: GHS Subcommittee, sixteenth session: 5 meetings

12 December 2008: Committee, fourth session: 2 meetings

(Total: TDG Subcommittee: 28 meetings; GHS Subcommittee: 10 meetings; Committee: 2 meetings)

**45. Action to be taken by the Economic and Social Council, recommended by the Committee with respect to its programme of work, is reflected in part C, paragraphs 1 to 3, of the draft resolution contained in paragraph 1 of the present report.**