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**INLAND TRANSPORT COMMITTEE**

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ACTIVITIES OF OTHER ORGANIZATIONS AND COUNTRIES

OF INTEREST TO THE WORKING PARTY

Submitted by the International Organization for Standardization (ISO)

Update on current ISO work

SUMMARY

1.    Introduction

As it concerns the transport area, it is important to mention the recent ISO work concerning:

- Terminology
- Identification of containers
- Dimensions of containers: 45 foot container
- Container door end security
- Mechanical seals for containers
- Electronic seals for containers
- Supply chain application of RFIDs
- Security management for the supply chain
- Current list of management systems standards (MSSs)
- Social responsibility
- Societal security
- Road-traffic safety management systems

2.    Terminology

The technical committee ISO/TC51 "*Pallets for unit load method of materials handling*" is revising its standard ISO 445:1996. The following draft international standard has been submitted to the ISO member bodies for enquiry. The voting ended on 2006-01-04. In view of the comments received, the draft has been slightly improved and a Final Draft International Standard (ISO/FDIS) is under preparation and should be distributed shortly for a formal voting:

- ISO/FDIS 445 Pallets for materials handling -- Vocabulary

The technical committee ISO/TC104 "*Freight containers*" is revising its standard ISO 830:1999. The following draft international standard will be submitted shortly for ISO member body enquiry:

- ISO/DIS 830 Freight containers --Vocabulary

The following international standard from technical committee ISO/TC122 "Packaging" has been published on 2007-06-28. The reference is:

- ISO 21067:2007  "Packaging -- Vocabulary"

The sub-committee ISO/IEC JTC 1/SC 31 "Automatic identification and data capture techniques" has approved on 2008-05-03 a new multi-part international standard ISO/IEC 19762, *Information technology, Automatic identification and data capture techniques — Harmonized vocabulary*.  These standards are under final publication process. The references are:

- ISO/IEC 19762-1, Information technology, Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 1: General terms relating to AIDC

- ISO/IEC 19762-2, Information technology, Automatic Identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 2: Optically readable media (ORM)

- ISO/IEC 19762-3, Information technology, Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 3:  Radio frequency identification (RFID)

- ISO/IEC 19762-4, Information technology, Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 4: General terms relating to radio communications

- ISO/IEC 19762-5, Information technology, Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 5: Locating systems

## 3     Identification of containers

The identification of containers is currently made on the basis of the following ISO standards. The registration is made by the Bureau International des Containers (BIC)

- ISO 6346:1995 "Freight containers -- Coding identification and marking"

Concerning the automatic identification, the current ISO standard is:

- ISO 10374:1991 "Freight containers -- RF automatic identification"

A new standard on RF automatic identification of freight container is under preparation. at the last meeting of Sub-committee ISO/TC104/SC4 which was held in Busan (Republic of Korea) on 9 May 2007, it was felt that  considerable work need to be done to achieving a consensual ISO  standard based on new technology. To exclude any misunderstanding and in order to clearly differentiate the future container tag ("license plate tag") from the tag specified in ISO 10374.1991, it was agreed to allot a new ISO standard number (10891).That draft is currently submitted to ISO/TC104/SC4 members as a Committee Draft:

- ISO/CD 10891"Freight containers -- RF automatic identification"

## 4.     Dimensions of containers: 45 foot container

The technical committee ISO/TC104 "*Freight containers*" has actively developed amendments to the TC104 series of standards that will recognize and standardize the "45 foot" widely used inter-modal freight container size.  The design being included in the standards is 45 feet long, 8 feet wide and 9 and a half feet high with end frames and corner fittings at both the extreme ends of the container and at the 40 foot points (2.5 feet in from each end). The container will be capable of stacking on top of 40 foot containers or 45 foot containers and of having either 40 or 45 foot containers stacked on top of it. Its other structural capabilities will be similar to those of all ISO freight containers.

Changes to the various standards have been made to incorporate this new container size in pertinent ISO standards

The following amendments are now published:

- ISO 668:1995/Amd 1:2005 "Series 1 freight containers -- Classification, dimensions and rating -- Amendment 1"

- ISO 1496-1:1990/Amd 4:2006 "Series 1 freight containers --Specification and testing—Part 1: General cargo containers for general purposes -- Amendment 4

- ISO 3874:1997/Amd 4:2007 "Series 1 freight containers --handling and securing—Part 1: General cargo containers for general purposes -- Amendment 4: 45 ft container

5.     Container door end security

The technical committee ISO/TC104 "Freight containers" has examined the design of the door end of the container from the aspect of improving security and making undetected entry into the container more difficult. The current activity in this regard is focused on current industry provisions for sealing freight containers and the apparent ease in which knowledgeable individuals can defeat these provisions. The ISO/TC104 has therefore considered including sealing provisions into the standards and in particular, moving location of these provisions to a more secure location such as the locking rod cam and keeper.

The following international standard has been issued:

- ISO 1496-1.1990/Amd 5: 2006 "Series 1 freight containers--Specification and testing—Part 1 General cargo containers for general purposes --Amendment 5 Door end security".

Moreover, some additional considerations relating to the door end security have been adopted and will be incorporated in ISO/TR 15070: 1996 on structural test criteria for freight containers. They are now issued as a second Amendment:

- ISO/TR 15070:1996/Amendment 2:2007 "Series 1 freight containers -- Rationale for structural test criteria -- Amendment 2 Design consideration"

6.     Mechanical seals for containers

First step of the ISO/TC104 work was completed in 2004 and PAS (Publicly Available Specification) 17712 on mechanical seals for freight containers was published. This PAS set the standard for mechanical seals, including high security seals, for use in transportation.

Further work has been undertaken to publish a second edition of this ISO/PAS and to convert it to a full ISO standard. One important addition that has been made as part of this new edition and conversion process is a new annex that details quality control procedures for seal manufacturers to ensure seals produced meet the standard and that they are properly controlled during manufacture and distribution to prevent theft, copying or other fraudulent use of the seals or seal numbers.

The second edition of ISO/PAS 17712 has been published in July 2006.

An ISO/DIS 17712 (identical to the second edition of the ISO/PAS) was submitted for ISO member body enquiry in December 2006. That last enquiry was aimed at transforming the ISO/PAS 17712 into a full ISO standard (ISO 17712). The enquiry terminated on 2007-05-03.

Comments received were reviewed by ISO/TC104/WG7 before last meeting of ISO/TC104 held in Busan on 10 May 2007. It was decided to make a few technical improvements as proposed by member bodies and to re-circulate the draft for a two-month enquiry.

The second ISO/DIS 17712 was submitted to ISO member bodies on 2008-02-04. During the enquiry there were consultations with the EU Working Group on Customs Seal Policy. There was an agreement between that Working Group and ISO/TC104 representatives to make a few improvements in the draft. The ISO 17712 is now unanimously approved and it is expected to issue it shortly.

7.    Electronic seals for containers

The following standards are now published

- ISO18185-1:2007 "Freight containers – Electronic seals – Part 1: Radio-frequency communication protocol"
- ISO18185-2:2007 "Freight containers -- Electronic seals – Part 2: Application requirements
- ISO 18185-3:2006 "Freight containers -- Electronic seals – Part 3: Environmental characteristics"
- ISO 18185-4:2007 "Freight containers -- Electronic seals -- Part 4: Data protection"
- ISO 18185-5: 2007 "Freight containers -- Electronic seals -- Part 5: Physical layer"

One important issue that has been agreed amongst the experts and included in their work is that all electronic seals will meet the requirements laid down in ISO/PAS 17712 for mechanical seals.

8.    Supply chain applications of Radio Frequency Identification (RFID)

Recognizing their overlying areas of responsibility, the technical committees ISO/TC 104 "Freight containers" and ISO/TC122 "Packaging" established a joint working group to look specifically at the application of radio frequency identification technology (RFID) to transportation issues. The following standards are now published or will be published shortly:

- ISO 17363:2007 - Freight containers
- ISO/FDIS 17364 - Returnable transport Items (to be submitted as ISO/FDIS for the ISO member body formal vote)
- ISO/FDIS 17365 - Transport units (to be submitted as ISO/FDIS for the ISO member body formal vote)
- ISO/PRF 17366 - Product packaging (to be published shortly)
- ISO/PRF 17367 - Product tagging (to be published shortly)

9.    Security management for the supply chain

At the end of 2001, the technical committee ISO/TC8 "*Ships and marine technology*" undertook the preparation of a management system for ensuring better security in the supply chain. Several ISO/PASs have now been transformed into international standards. At present the following international standards are published or being published shortly:

- ISO 28000:2007 "Specification for security management systems for the supply chain"
- ISO 28001:2007 " Security management systems for the supply chain—Best practices for implementing supply chain security—Assessments and plans"
- ISO 28003:2007 "Security management for the supply chain—Requirement for audit and certification of supply chain management security systems"
- ISO 28004:2007 "security management for the supply chain—Guidelines for the implementation of ISO/PAS 28000" (to be published in October 2007)
- ISO 20858:2007 "Ship and marine technology—Maritime port facility security assessments and security plan development" (Published in November 2007)

In addition, the following draft international standard will be submitted shortly to an ISO Member Body enquiry:

- ISO/DIS 28005 Ships and marine technology - Computer applications - Electronic port clearance

The above standardization work is dealt with in close collaboration with the International Maritime organization (IMO), the International Labour Office (ILO) and the World Customs Organization (WCO).

10    Management systems standards

The list of current management systems covers the following areas:

- Quality (ISO 9000 series) (work from ISO/TC176 "Quality management and quality assurance" )
- Environment (ISO 14000 series) (work from ISO/TC207 "Environmental management")
- Information technology service (ISO/IEC 20000) (work from ISO-IEC/JTC1 "Information technology")
- Food safety (ISO 22000 series) (work from ISO/TC34 "Food products")
- Information security management (ISO 27000 series) (work from ISO-IEC/JTC1 "Information technology")
- Security for the supply chain (ISO 28000 series) (developed and coordinated for ISO by ISO/TC8 " Ships and marine technology"

Additional Management Systems Standards are published and under preparation concerning the dismantling of ships. The work is carried out by the technical committee ISO/TC8 "*Ships and marine technology*" in liaison with IMO, UNEP/Basel Convention and ILO:

- Ship recycling management systems  -- Specifications for management systems for safe and environmentally sound ship recycling facilities (ISO/PAS 30000:2008)
- Ship recycling management systems  -- Best practice for ship recycling facilities -- Assessment and plans (ISO/AWI PAS 30001)
- Ship recycling management systems  -- Guidelines for selection of ship recyclers (and pro forma contract9 (ISO/AWI PAS 30002)

- Ship recycling management systems -- Requirements for bodies providing audit and certification of ship recycling management systems (ISO/PAS 30003 under publication process)
- Ship recycling management systems -- Guidelines for implementing ISO 30000 (ISO/AWI PAS 30004)
- Ship recycling management systems -- Information control for hazardous materials in the manufacturing chain of shipbuilding and ship operations (ISO/AWI PAS 30005)

Lastly, management standards are envisaged for the future, e.g. on health and occupational safety, on road-traffic safety (ISO39000 series), etc…   Other MSSs might be envisaged in certain areas.

11.    Social responsibility

The work carried out on social responsibility is progressing. A committee draft is under preparation by the ISO Technical Management Board (ISO/TMB) in liaison with interested organizations.

- Social responsibility (ISO/WD 26000)

12.    Societal security

The recently established ISO technical committee 223 "Societal security" deals with international standardization in the area of societal security, aimed at increasing crisis management and business continuity capabilities, i.e. through improved technical, human, organizational, and functional interoperability as well as shared situational awareness, amongst all interested parties.

The committee used an all-hazards approach covering all necessary activities in the key phases of crisis management and business continuity.

A first ISO publicly available specification has been published:

- ISO/PAS 22399:2007 "Societal security - Guidelines for incident preparedness and operational continuity management."

Several envisaged projects would concern:

- Societal security - Fundamentals and vocabulary (ISO/NP22300)
- Societal security - Preparedness and continuity management systems - Requirements (ISO/WD22301)
- Societal security - Principles for command and control, cooperation and coordination in resolving incidents (ISO/NP22320).
- Societal security - Essential information and data requirements for command and control (ISO/NP22321).
- Societal security - Principles for command and control, cooperation and coordination in resolving incidents (ISO/NP22320).
- Societal security - Inter/intra organizational warning procedures (ISO/NP22322)

- Societal security - Public/Private partnerships (ISO/NP22397)
- Societal security - Procedure for exercises (ISO/NP22398)

13.   Road-traffic safety management systems

The ISO Central Secretariat has taken a recent ISO initiative proposing the establishment of an ISO Project Committee to deal with the preparation of a management system standard (MSS) on the following subject:

Road-Traffic safety management systems - Requirements with guidance for use (possible future ISO 39001).

The ISO member body enquiry started on 28 September 2007 and was closed on 28 December 2007. The proposal has been approved by a large majority of ISO member bodies and the ISO Technical Management Board has approved the setting up of that ISO Project Committee on occasion of its meeting held in Geneva on 13 and 14 February 2008.

The concerned ISO Project Committee has been entitled ISO/PC241 "Road-traffic management systems". The Secretariat is allotted to the ISO member body for Sweden (SIS). The first meeting will take place in Stockholm from 16 to 19 June 2008.

14.   Conclusions

Members of the ECE/TRANS/WP30 Working Party on Customs Questions affecting Transport are invited to take note of the above update and if so wish to submit comments. It is moreover recommended that committee members will contact the ISO member body in their country for expressing views on drafts on interest to them.

Particular attention is drawn on the work related to the electronic identification of freight containers (ISO 10374:1991 and ISO/CD 10891), on mechanical and electronic seals (second ISO/DIS 17712, forthcoming Final MB vote on ISO/FDIS 17712), to the recent publication of electronic seals standards (ISO 18185-1 to 5), to the progress made on RFIDs application standards and to the final issue of ISO 28000 series of standards.

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