



**Economic and Social  
Council**

Distr.  
GENERAL

TRANS/WP.30/2004/18  
2 April 2004

Original: ENGLISH

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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

Working Party on Customs Questions affecting Transport

(One-hundred-and-seventh session, 15-18 June 2004,  
agenda item 6 (c) (iv))

**CUSTOMS CONVENTION ON THE INTERNATIONAL TRANSPORT  
OF GOODS UNDER COVER OF TIR CARNETS (TIR CONVENTION 1975)**

**Application of the Convention**

**Amendment proposals relating to technical provisions**

**New Guidelines to Chapter 6 of the General Annex to the Revised Kyoto Convention**

**Submitted by the World Customs Organization (WCO)**

**A. BACKGROUND**

1. The Permanent Technical Committee of the World Customs Organization, at its one-hundred-and-seventy-fifth session (1-3 March 2004), has adopted new guidelines to Chapter 6 (Customs Controls) of the General Annex to the Revised Kyoto Convention concerning seals and their application for security purposes.

2. The Working Party is requested to consider how these guidelines could be applied in the context of the TIR Convention.

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## **ANNEX 1 : NEW GUIDELINE TO CHAPTER 6 OF THE REVISED KYOTO CONVENTION**

### **9. Security and Facilitation of the international Supply Chain: Seals and their application for security purposes.**

1. Minimum standards for customs seals used in the application of Customs transit are laid down in Standard 16 to Specific Annex E, Chapter 1. This section of the Guidelines is intended to provide information to administrations on the various options of seals available and their use for security purposes.

#### **Introduction.**

2. In a climate of increased focus on the security of goods moving in the international supply chain, a major concern has been the vulnerability of the goods container as a potential means of introducing high risk consignments into a country. Approximately 90% by volume of the world's trade moves by containers – many of which are sea containers. High security manual or mechanical seals can play a significant role in a comprehensive container security program. But it is important to recognize that container security starts with the stuffing\* of the container, and that seals do not evidence or guarantee the legitimacy of the container load.

3. Some administrations have developed seal integrity programmes, which encourage high security seals to be applied at the point of stuffing of the container. Such programmes include procedures for recording the affixing, changing and verification of seal integrity at key points, such as a modal change, to ensure a fully secure movement. A sequential analysis of possible elements of a seal integrity programme is annexed. In keeping with a basic risk assessment principle, that of offering greater facilitation to compliant traders, such seal integrity programmes are part of wider supply chain integrity or authorised programmes that provide facilitation benefits, such as 'green lane' facilities, to the importer.

Such security programmes are not restricted to goods moving under Customs transit, but apply to container movements in general, irrespective of the Customs procedure used.

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\* In order to differentiate between the process of loading the container with shipments- a process known in the international liner industry as 'stuffing' – and the placement (or loading) of the container onto a conveyance for transportation, the term 'stuffing' throughout this document describes the first situation, and the term 'loading' describes the latter

## **Principal types of seal**

### **Mechanical seals**

4. There are three major categories of mechanical seals – indicative, security and high security, which are intended to detect tampering or entry through the container doors.

Indicative seals are constructed and manufactured of material that can be broken easily by hand or simple snipping tool or shear. This type of seal is currently used in many Customs administrations.

5. Security seals, however, add physical protection to tamper detection and are relatively more difficult to defeat. High security seals offer greater protection against intrusion and must be removed by quality bolt or cable cutters. There are several types of high security seals, including bolt seals that can be either hardened or flexible, and cable seals.

6. The International Organization for Standardization (ISO) has developed an international standard for mechanical seals. At the time of writing (December 2003) these requirements are available as a Publicly Available Specification (PAS)\*\* – reference 17712. It is expected that the PAS could be confirmed as an International Standard (IS) within the next year or so.

7. In the Customs context, the ISO standard lays down particular criteria for customs seals such as independent testing and appropriate identification markings. Significantly, only seals classed as security or high security according to a number of specific tests are acceptable as customs seals under this PAS.

### **Electronic seals (e-seals) and other electronic security devices**

8. Electronic seals, or e-seals, tend to combine physical seals and radio frequency identification (RFID) components, which can be passive or active. “Passive” e-seals do not have their own energy source. They can report whether they are intact or not when interrogated by a reader. “Active” e-seals have their own energy source and can thus detect tampering when it occurs and add it to a time log of events. If equipped or interfaced with Global Positioning System (GPS), they can also log the location. Active e-seals must also be interrogated by readers.

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\*\* The ISO PAS is an agreement between technical experts in an ISO working group that has been approved by a majority of those members of the relevant ISO committee voting. It can be reviewed twice over a period of six years and must then either be confirmed as an ISO International Standard (IS) or withdrawn

9. Container Security Devices (CSDs) also use RFID technology. Affixed to the the container rather than to the door locking mechanism where seals are affixed, such devices are also intended to detect intrusion through the container doors. CSDs also have to be interrogated by either fixed or handheld readers.

10. At present there is no international standard for e-seals or CSDs and they are not widely used by customs administrations or private industry, inter alia, because of the current lack of global frequencies and technical specifications for e-seals. ISO is working towards developing a standard for e-seals that may also apply to CSDs..

11. Pilot projects to determine what role, if any, e-seals and/or CSDs may play to meet identified and agreed container security requirements are in progress in a number of administrations and these Guidelines will be updated from time to time to reflect developments.

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**Annex : A SEQUENTIAL ANALYSIS OF POSSIBLE ELEMENTS OF A SEAL INTEGRITY PROGRAMME**

**Importance of specifying security relationships**

12. Greater clarity and consensus about the relationships among the parties in the movement of secure containerized goods, coupled with consistent application and enforcement of those relationships, will provide multiple benefits to all of those parties. These benefits include:

- Improved security against acts of terrorism that exploit the global trade in goods.
- Reduced risk of economic hardship caused by disruptions to or closures of trade in response to terrorist acts.
- Improved security against theft and diversion of cargo, with consequent reductions in direct losses and indirect costs, such as insurance.
- Improved security against illegal transport of materials such as narcotics and weapons, and of persons.
- Improved security against the illegal movement of “black market” and “grey market” trade goods.
- Reduced risk of evasion of duties and taxes
- Increased confidence in international trading systems by current and potential shippers of goods.
- Facilitation dividends, such as a reduced number of examinations (reduced border times) and access to simplified procedures.

## **Responsibilities along the chain of custody**

### **A. Cross-cutting responsibilities**

13. There are responsibilities and principles that apply throughout the life cycle of a containerized shipment of goods.

14. The emphasis is on the relationships among parties upon changes in the custody or possession of the container. That emphasis does not reduce and should not obscure the fundamental responsibility of the shipper for the safe and secure stuffing and sealing of the container.

15. Each party in possession of the container has security responsibilities while cargo is entrusted to them, whether at rest at a node or while moving between nodes. Each party with data that needs to be filed with the government for customs and security screening purposes has responsibilities. Those responsibilities include:

- Protecting the physical goods from tampering, theft, and damage
- Providing appropriate information to government authorities in a timely and accurate manner for security screening purposes
- Protecting the information related to the goods from tampering and unauthorized access. This responsibility applies equally to times before, during, and after having custody of the goods.

16. Security seals are an integral part of the chain of custody. The proper grade and application of the security seal is addressed below.

17. Security seals should be inspected by the receiving party at each change of custody for a cargo-laden container. Inspecting a seal requires visual check for signs of tampering, comparison of the seal's identification number with the cargo documentation, and noting the inspection in the appropriate documentation.

18. If the seal is missing, or shows signs of tampering, or shows a different identification number than the cargo documentation, then a number of actions are necessary:

- The receiving party must bring the discrepancy to the attention of the party tendering the

container and the shipper

- The receiving party must note the discrepancy on the cargo documentation
- The receiving party should notify customs or law enforcement agencies, in accordance with national legislation.
- Where no such notification requirements exist, the receiving party would have to decide whether to refuse custody of the container pending resolution of any discrepancy, or to accept custody and continue with planned movements of the container. In the latter case, the receiving party shall affix an additional security seal to the container and note the particulars, including the new seal number, on the cargo documentation.

19. Security seals may be changed on a container for legitimate reasons. Examples include inspections by an exporting Customs administration to verify compliance with export regulations; by a carrier to ensure safe blocking and bracing of the lading; by an importing Customs administration to confirm cargo declarations; and by law enforcement officials concerned with other regulatory or criminal issues.

20. If public or private officials should remove a security seal to inspect the lading, they will install a replacement that meets the quality specified in paragraph 22, installing it in a manner that meets the requirements specified below, and note the particulars of the action, including the new seal number, on the cargo documentation.

#### **B. Stuffing site**

21. The shipper/consignor is responsible for securely stuffing the container and for the accurate and complete description of the cargo. The shipper is also responsible for affixing the cargo security seal immediately upon the conclusion of the stuffing process, and for preparing documentation for the shipment, including the seal number.

22. The cargo security seal should be compliant with the definition of high security mechanical seals in ISO Publicly Available Specification 17712. The seal should be applied to the container in a manner that avoids the vulnerability of the traditional container door handle seal location to surreptitious tampering. Among the acceptable ways to do this are alternative seal locations that prevent swivelling of an outer door locking cam or the use of equivalent tamper evident measures, such as cable seals across the door locking bars.

23. **Deleted**

24. The land transport operator picks up the load. The transport operator receives the documentation, inspects the seal and notes the condition on the documentation, and departs with the load.

**C. Intermediate terminal**

25. If the container movement is via an intermediate terminal, then the land transport operator transfers custody of the container to the terminal operator. The terminal operator receives the documentation, inspects the seal and notes the condition on the documentation. Normally, the terminal operator sends an electronic notification of receipt (status report) to other private parties to the shipment. The terminal operator prepares or stages the container for its next movement, which could be by road, rail, or barge.

Similar verification and documentation processes take place upon pickup or departure of the container from the intermediate terminal.

26. It is rare that public sector agencies are involved in or informed about intermodal transfers at intermediate terminals.

**D. Loading ocean terminal**

27. Upon arrival at the loading ocean terminal, the land transport operator transfers custody of the container to the terminal operator. The terminal operator receives the documentation and normally sends an electronic notification of receipt (status report) to other private parties to the shipment. The terminal operator prepares or stages the container for loading upon the ocean vessel.

28. The carrier or the ocean terminal as agent for the carrier inspects the condition of the seal, and notes it accordingly; this may be done at the ocean terminal gate or after entry to the terminal but before the container is loaded on the ship.

29. Public agencies in the exporting nation review export documentation and undertake necessary export control and provide safety certifications.

30. The Customs administrations that require advance information receive that information, review it, and either approve the container for loading (explicitly or tacitly) or issue “do-not-load” messages for containers that cannot be loaded pending further screening, including possible inspection.

31. For those countries that have export declaration and screening requirements, the carrier should require from the shipper documentation that the shipper has complied with the relevant requirements before loading the cargo for export. (The shipper/consignor is, however, responsible for compliance with all prevailing documentation and other pertinent export requirements.) Where applicable, the ocean carrier must file its manifest information to those importing Customs agencies that require such information. Shipments for which “do-not-load” messages have been issued should not be loaded onboard the vessel pending further screening.

**E. Transshipment terminal**

32. The transshipment terminal operator shall inspect the security seal between the off-loading and re-loading of the container. This requirement may be waived for transshipment terminals which have security plans that conform to the International Ship and Port Facility Security Code (ISPS Code produced by the International Maritime Organization).

**F. Off-loading ocean terminal**

33. The receiver/consignee usually arranges for a Customs broker to facilitate clearance of the shipment in the off-loading ocean terminal. Generally, this requires that the cargo owner provide documentation to the broker in advance of arrival.

34. The ocean carrier provides advanced electronic cargo manifest information to the terminal operator and to the importing Customs administration as required.

35. Customs may select containers for different levels of inspection immediately upon offloading or later. Customs may inspect the condition of the seal and related documentation in addition to the cargo itself.

36. If the container is to travel under customs control to another location for clearance, then Customs at the offloading terminal must affix a Customs seal to the container and note the documentation accordingly.

37. The receiver/consignor or Customs broker pays any duties and taxes due to Customs and arranges the Customs release of the shipment.

38. Upon pickup for departure from the ocean terminal, the land transport operator inspects and notes the condition of the seal, and receives documentation from the terminal operator.

**G. Intermediate terminal**

39. The processes in intermediate terminals in the importing country are analogous to those in intermediate terminals in exporting countries.

**H. Unloading site**

40. Upon receipt of the container, the consignee or deconsolidator inspects the seal and notes any discrepancy on the documentation.

41. The consignee unloads the container and verifies the count and condition of the lading against the documentation. If there is a shortage, damage, or an overage discrepancy, it is noted for claims or insurance purposes, and the shipment and its documentation is subject to audit and review.

42. If there is an anomaly related to narcotics, contraband, stowaways, or suspicious materials, the consignee Customs or another law enforcement agency must be informed.

43. **Deleted**

**Technology Evolution**

44. The above description of roles and responsibilities relies heavily on a process of checking mechanical seals that are affixed by the shipper to a container. This reflects the current state of commercially deployed technology. Some governments and private parties are exploring the suitability of new technologies that may provide enhanced container security capabilities. If such technologies are approved and deployed, then procedures and requirements based on checking traditional mechanical seals should also evolve to reflect those technologies, so as to avoid redundant seal verification requirements.

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## **ANNEX 2**

### **Customs seals**

#### **Standard 16**

*Customs seals and fastenings used in the application of Customs transit shall fulfil the minimum requirements laid down in the Appendix to this Chapter.*

1. To ensure the security of the goods in transit operations, Customs themselves usually affix Customs seals and fastenings on the goods and/or the transport-unit.
2. Customs seals must conform to certain minimum requirements. The office of destination must also be able to identify the office that affixed the Customs seals and fastenings and to ensure that goods in transit have not been tampered with. The details of the minimum requirements of such Customs seals and fastenings are set out in the Appendix to this Chapter and are included in these Guidelines. The particulars of the Customs seals used should be identified in the Goods declaration or the transport document.
3. As a facilitative measure Customs also allow authorized consignors to fix seals themselves. (See Guidelines to Standard 10 of this Chapter.) This enables the sealing to take place at the place of loading or stuffing of the goods.
4. Authorized consignors and other persons authorized for Customs transit are required to use seals bearing a specific identification (name of Customs territory, serial numbering and possibly other distinctive signs such as code letters or numbers). These seals make it possible to identify the Customs territory where the seals were applied, the person who affixed them and the consignment. As in the case of Customs seals affixed by Customs themselves, the details of the seals affixed by authorized consignors or other authorized persons will have to be recorded on the Goods declaration and transport document to ensure that they are not replaced en route.
5. Customs will usually require the authorized persons to take precautionary measures such as requiring that adequate records of the use of the approved seals are maintained; that the seals are kept in a place of safety and access to the approved seals is restricted to specially authorized personnel; and that these seals are affixed by an authorized person within their organization.
6. The seals must be Customs-approved, and Customs should keep a check on the seals in the possession of the authorized person by requiring that he periodically notify them of the seals used.

7. The manufacturer or supplier of the seals must also be Customs-approved, and Customs can require these manufacturers or suppliers to give an understanding not to supply seals without Customs approval.

**Some administrations encourage the use of high security seals at the point of stuffing of a container as part of seal integrity programs. Further explanation of the use of seals in such integrity programs may be found in the Guideline to Chapter 6 of the General Annex.**

Minimum requirements to be met by Customs seals and fastenings

*A. Customs seals and fastenings shall meet the following minimum requirements :*

*1. General requirements in respect of seals and fastenings :*

*The seals and fastenings shall :*

- (a) be strong and durable;*
- (b) be capable of being affixed easily and quickly;*
- (c) be capable of being readily checked and identified;*
- (d) not permit removal or undoing without breaking or tampering without leaving traces;*
- (e) not permit use more than once, except seals intended for multiple use (e.g. electronic seals);*
- (f) be made as difficult as possible to copy or counterfeit.*

*2. Physical specification of seals :*

- (a) the shape and size of the seal shall be such that any identifying marks are readily distinguishable;*
- (b) each eyelet in a seal shall be of a size corresponding to that of the fastening used, and shall be positioned so that the fastening will be held firmly in place when the seal is closed;*
- (c) the material used shall be sufficiently strong to prevent accidental breakage, early deterioration (due to weather conditions, chemical action, etc.) or undetectable tampering;*
- (d) the material used shall be selected by reference to the sealing system used.*

*3. Physical specification of fastenings :*

- (a) *the fastening shall be strong and durable and resistant to weather and corrosion;*
- (b) *the length of the fastening used shall not enable a sealed aperture to be opened or partly opened without the seal or fastening being broken or otherwise showing obvious damage;*
- (c) *the material used shall be selected by reference to the sealing system used.*

4. *Identification marks :*

*The seal or fastening shall be marked :*

- (a) *to show that it is a Customs seal, by application of the word "Customs" preferably in one of the official languages of the Council (English or French);*
- (b) *to show the country which affixed the seal, preferably by means of the sign used to indicate the country of registration of motor vehicles in international traffic;*
- (c) *to enable the Customs office which affixed the seal, or under whose authority the seal was affixed, to be identified, for example, by means of code letters or numbers.*

*B. Seals or fastenings affixed by authorized consignors and other authorized persons for Customs transit purposes to ensure security for Customs purposes shall offer physical security comparable to that of seals affixed by the Customs and shall make it possible to identify the person who affixed those seals, by means of numbers to be entered on the transit document.*

**Commentary.**

8. Paragraph 3. 'Stuffing' (introducing the goods into a container which is subsequently loaded onto a transport unit) has been added to cover both contingencies.

9. Paragraph 7 Customs has been deleted from 'Customs seals' since these are in fact customs approved seals, not customs seals as such.

10. The final three paragraphs of the existing Guideline have been deleted as they are unclear. The concepts are in any case covered clearly in the Guideline to Standard 10 (qv).

11. Finally, a new paragraph has been added cross referring to the use of seals in a security context.

## **GUIDELINES TO CHAPTER 6: CUSTOMS CONTROL**

### **7.1.3 Identification of goods**

12. To allow goods subject to certain Customs procedures, e.g. transit, transshipment, temporary admission, warehousing, inward processing, etc., to enter or move through the Customs territory without paying duties and taxes, specific measures are required to ensure their identification.

13. These measures may include affixing seals, stamps, perforations, identification marks, describing the goods, reference to samples, plans, sketches or photographs.

14. Any transport unit to which Customs wish to affix a seal directly must be suitable for this purpose. The requirements for Customs seals are laid down in Standard 16 of Specific Annex E, Chapter 1 on Transit. (an explanation of the use of seals as part of a seal integrity program may be found in Section 9)

15. Where the above is not feasible or sufficient due to specific exceptional reasons, transit procedures may prescribe an itinerary or allow transport of the goods under Customs escort. In the case of inward/outward processing it is possible to fix specific or standard rates of yield of the operation and to require specific documentation on the manufacturing.

Comment.

An incorrect reference was made (Standard 14 instead of 16)

A cross reference to the new Section 9 has been added.

### **Standard 10**

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16. In addition to the standard practice of Customs themselves affixing Customs seals, there are two alternative methods of sealing used in some administrations which may be regarded as offering greater facilities. These are :

- (a) Customs seals are issued to approved persons who themselves affix the seals;
- (b) the acceptance, by Customs of private seals affixed by the person concerned.

Comment.

17. 'on a case by case basis' has been deleted as Customs normally approve a particular make of seal which may then be used on a permanent basis.

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