

# CCS CIRCULAR

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To: relevant departments of CCS Headquarters, CCS Shanghai rules & research institute, CCS Wuhan rules & research institute, plan approval centers, branches/offices, CCSC, container manufactories, container shipping companies and container-owners.

## **CIRCULAR OF THE IMPLEMENTATION OF THE RESOLUTION MSC.310 (88) “ADOPTION OF AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR SAFE CONTAINERS (CSC), 1972”**

### 1、Background

1.1 On the basis of the *CSC/Circ.134*, *CSC/Circ.137* and *CSC/Circ.138*, IMO Maritime Safety Committee, at its eighty-eighth session, adopted the Resolution MSC.310(88) “*Adoption of Amendments to the International Convention for Safe Containers (CSC), 1972*” on 3 December 2010, which will enter into force on 1 January 2012. China is one of the Contracting Parties to the Convention.

1.2 This circular explains the ANNEX of the Resolution MSC.310 (88) “*Amendments to the International Convention for Safe Containers, 1972, as amended*” and will enter into force on 1 January 2012.

1.3 The original English text and Chinese version of the Resolution MSC.310 (88) and its annex “*Amendments to the International Convention for Safe Containers, 1972, as amended*” are set out in Annex 1 of this Circular.

### 2、Technical points

2.1 The requirements that the weak containers shall be marked on CSC safety approval plate are added in Regulation 1, Chapter I, and ANNEX I of the Amendments as follows:

Where the stacking or racking values are less than 192,000 kg or 150 kN, respectively, the container shall be conspicuously marked on safety approval plate.

2.2 The review requirements for approved programmes are added in Regulation 2, Chapter I, ANNEX I of the Amendments as follows:

(1) As a minimum, approved programmes shall be reviewed once every 10 years to ensure their continued viability.

(2) The elements which are covered in each prescribed periodic or approved continuous examination programme are provided (see Regulation 2, Chapter I and ANNEX I of the Amendments to the Convention).

(3) Periodic audits shall be carried out for approved programmes to ensure their compliance.

(4) Information on approved Continuous Examination Programmes shall be made publicly available.

2.3 The new requirements are added in the APPENDIX of ANNEX I of the Amendments as follows:

When the container is approved for one door off operation, the stacking and racking test load values shall be marked on CSC safety approval plate (Details see Regulation 1 Safety Approval Plate, ANNEX I of the Amendments to the Convention).

2.4 The requirements for one door off test are added to “*Test loads and test procedures*” in ANNEX II, and the stacking and racking test procedures of the containers with one door off are provided (Details see ANNEX II of the Amendments to the Convention).

2.5 New ANNEX III is added to provide the deficiency identification criteria and control measures of the containers with an obvious risk to safety. The structurally sensitive components are listed and their serious structural deficiencies are defined respectively, and the containers with serious structural deficiencies shall be stopped (See ANNEX III of the Amendments to the Convention).

### 3. Other tips

This circular is available on [www.ccs.org.cn](http://www.ccs.org.cn) and forwarded by each branch and plan approval center carrying out the inspection to relevant units within their business area.

### 4. Annexes

Annex 1: The original English text of the Resolution MSC.310 (88) and its annex;

(Notice: In case of any discrepancy for the Chinese version of Annex 1 of this circular, the original version in English shall prevail.)

If you have any further enquiries in the course of the performance of this Circular, please contact the Technology Management Department of CCS Headquarters ([rt@ccs.org.cn](mailto:rt@ccs.org.cn)).

## **Annex 1**

### **RESOLUTION MSC.310(88) (Adopted on 3 December 2010)**

#### **ADOPTION OF AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR SAFE CONTAINERS (CSC), 1972**

THE MARITIME SAFETY COMMITTEE,

RECALLING article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING article X of the International Convention for Safe Containers, 1972 (hereinafter referred to as "the Convention"), concerning the special procedure for amending the Annexes to the Convention,

HAVING CONSIDERED, at its eighty-eighth session, proposed amendments to the Convention in accordance with the procedure set forth in paragraphs 1 and 2 of article X of the Convention,

1. ADOPTS the amendments to the Annexes of the Convention, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with paragraph 3 of article X of the Convention, that the said amendments shall enter into force on 1 January 2012 unless, prior to 1 July 2011, five or more of the Contracting Parties notify the Secretary-General of their objection to the amendments;
3. REQUESTS the Secretary-General, in conformity with paragraph 2 of article X of the Convention, to communicate the certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Parties for their acceptance;
4. FURTHER REQUESTS the Secretary-General to inform all Contracting Parties and Members of the Organization of any request and communication under article X of the Convention and of the date on which the amendments enter into force.

**ANNEX**

**AMENDMENTS TO**

**THE INTERNATIONAL CONVENTION FOR SAFE CONTAINERS, 1972, AS AMENDED**

**ANNEX I**

**REGULATIONS FOR THE TESTING, INSPECTION, APPROVAL**

**AND MAINTENANCE OF CONTAINERS**

**Chapter I**

**Regulations common to all systems of approval**

**Regulation 1 – Safety Approval Plate**

- 1 A new sentence is added at the end of paragraph 3 as follows:
- "Where the stacking or racking values are less than 192,000 kg or 150 kN, respectively, the container shall be considered as having limited stacking or racking capacity and shall be conspicuously marked, as required under the relevant standards\*.

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\* Refer to standard ISO 6346, Freight containers – Coding, identification and marking."

**Regulation 2 – Maintenance and examination**

- 2 After the existing paragraph 3, new paragraphs 4 and 5 are added as follows and the existing paragraph 4 is renumbered as paragraph 6:

"4 As a minimum, approved programmes should be reviewed once every 10 years to ensure their continued viability. In order to ensure uniformity by all involved in the inspection of containers and their ongoing operational safety, the Contracting Party concerned shall ensure the following elements are covered in each prescribed periodic or approved continuous examination programme:

- .1 methods, scope and criteria to be used during examinations;
- .2 frequency of examinations;
- .3 qualifications of personnel to carry out examinations;
- .4 system of keeping records and documents that will capture:
  - .1 the owner's unique serial number of the container;
  - .2 the date on which the examination was carried out;
  - .3 identification of the competent person who carried out the examination;
  - .4 the name and location of the organization where the examination was carried out;

.5 the results of the examination; and

.6 in the case of a Periodic Examination Scheme (PES), the Next Examination Date (NED);

.5 a system for recording and updating the identification numbers of all containers covered by the appropriate examination scheme;

.6 methods and systems for maintenance criteria that addresses the design characteristics of the specific containers;

.7 provisions for maintaining leased containers if different than those used for owned containers; and

.8 conditions and procedures for adding containers into an already approved programme.

5 The Contracting Party shall carry out periodic audits of approved programmes to ensure compliance with the provisions approved by the Contracting Party. The Contracting Party shall withdraw any approval when the conditions of approval are no longer complied with."

- 3 After the renumbered paragraph 6, a new paragraph 7 is added as follows:  
"7 Administrations shall make information on approved Continuous Examination Programmes publicly available."

#### **APPENDIX**

- 4 After the existing paragraph 9, new paragraphs 10 and 11 are added as follows:  
"10 One door off stacking strength to be indicated on plate only if the container is approved for one door off operation. The marking shall show: ALLOWABLE STACKING MASS ONE DOOR OFF FOR 1.8 g (... kg ... lbs). This marking shall be displayed immediately near the racking test value (see line 5).

11 One door off racking strength to be indicated on plate only if the container is approved for one door off operation. The marking shall show: RACKING TEST LOAD VALUE ONE DOOR OFF (... kg ... lbs). This marking shall be displayed immediately near the stacking test value (see line 6)."

## ANNEX II

### STRUCTURAL SAFETY REQUIREMENTS AND TESTS

#### Test loads and test procedures

5 After the existing section 7, a new section 8 is added as follows:

#### "8 ONE DOOR OFF OPERATION

1 Containers with one door removed have a significant reduction in their ability to withstand racking loads and, potentially, a reduction in stacking strength. The removal of a door on a container in operation is considered a modification of the container. Containers must be approved for one door off operation. Such approval should be based on test results as set forth below.

2 On successful completion of the stacking test the container may be rated for the allowable superimposed stacking mass, which should be indicated on the Safety Approval Plate immediately below line 5: ALLOWABLE STACKING MASS FOR 1.8 g (kg and lbs) ONE DOOR OFF.

3 On successful completion of the racking test the racking test load should be indicated on the Safety Approval Plate immediately below line 6: RACKING TEST LOAD VALUE (kg and lbs) ONE DOOR OFF.

TEST LOADINGS AND APPLIED FORCES	TEST PROCEDURES
<p><b><u>Stacking</u></b></p> <p><b>Internal loading:</b> A uniformly distributed load such that the combined mass of the container and test load is equal to 1.8R.</p> <p><b>Externally applied forces:</b> Such as to subject each of the four corner fittings to a vertical downward force equal to <math>0.25 \times 1.8 \times</math> the allowable superimposed static stacking mass.</p>	<p>The test procedures should be as set forth under <b>2 STACKING</b></p>
<p><b><u>Transverse racking</u></b></p> <p><b>Internal loading:</b> None.</p> <p><b>Externally applied forces:</b> Such as to rack the end structures of the container sideways. The forces shall be equal to those for which the container was designed."</p>	<p>The test procedures should be as set forth under <b>4 TRANSVERSE RACKING</b></p>

- 6 After the existing annex II, new annex III is added as follows:

**"ANNEX III  
CONTROL AND VERIFICATION**

**1 Introduction**

Article VI of the Convention refers to the control measures that may be taken by Contracting Parties. Such control should be limited to verifying that the container carries a valid Safety Approval Plate, and an approved continuous examination programme (ACEP) or a valid Next Examination Date (NED) marking, unless there is significant evidence for believing that the condition of the container is such as to create an obvious risk to safety. This Annex provides specifics to enable authorized officers to assess the integrity of structurally sensitive components of containers and to help them decide whether a container is safe to continue in transportation or whether it should be stopped until remedial action has been taken. The criteria given are to be used to make immediate out of service determinations, and should not be used as repair or in-service criteria under a CSC ACEP or a periodic examination scheme.

**2 Control measures**

Authorized officers should consider the following:

- .1 control should be exercised on those containers that create an obvious risk to safety;
- .2 loaded containers with damages equal to, or in excess of, the criteria set forth below are deemed to place a person in danger. The authorized officer should stop those containers. However, the authorized officer may permit the onward movement of the container, if it is to be moved to its ultimate destination without lifting from its current means of transport;
- .3 empty containers with damages equal to, or in excess of, the criteria set forth below are also deemed to place a person in danger. Empty containers are typically repositioned for repair at an owner-selected depot provided they can be safely moved; this can involve either a domestic or an international move. Any damaged container being repositioned should be handled and transported with due regard to its structural deficiency;
- .4 authorized officers should notify the container owner, lessee or bailee, as appropriate, whenever a container is placed under control;
- .5 the provisions set forth in this Annex are not exhaustive for all types of containers or all possible deficiencies or combination of deficiencies;
- .6 damage to a container may appear serious without creating an obvious risk to safety. Some damage such as holes may infringe customs requirements but may not be structurally significant; and

.7 major damage may be the result of significant impact which could be caused by improper handling of the container or other containers, or significant movement of the cargo within the container. Therefore, special attention should be given to signs of recent impact damage.

### 3 **Training of authorized officers**

The Contracting Party exercising control should ensure that authorized officers tasked to carry out these assessments and control measures receive the necessary training. This training should involve both theoretical and practical instruction.

### 4 **Structurally sensitive components and definition of serious structural deficiencies in each**

4.1 The following components are structurally sensitive and should be examined for serious deficiencies:

<b>Structurally sensitive component</b>	<b>Serious structural deficiency</b>
Top rail	Local deformation to the rail in excess of 60 mm or separation or cracks or tears in the rail material in excess of 45 mm in length. Note: On some designs of tank containers the top rail is not a structurally significant component.
Bottom rail	Local deformation perpendicular to the rail in excess of 100 mm or separation or cracks or tears in the rail's material in excess of 75 mm in length.
Header	Local deformation to the header in excess of 80 mm or cracks or tears in excess of 80 mm in length.
Sill	Local deformation to the sill in excess of 100 mm or cracks or tears in excess of 100 mm in length.
Corner posts	Local deformation to the post exceeding 50 mm or tears or cracks in excess of 50 mm in length.
Corner and intermediate fittings (Castings)	Missing corner fittings, any through cracks or tears in the fitting, any deformation of the fitting that precludes full engagement of securing or lifting fittings, any deformation of the fitting beyond 5 mm from its original plane, any aperture width greater than 66 mm, any aperture length greater than 127 mm, any reduction in thickness of the plate containing the top aperture that makes it less than 23 mm thick or any weld separation of adjoining components in excess of 50 mm in length.
Under structure	Two or more adjacent cross members missing or detached from the bottom rails. Twenty per cent (20%) or more of the total number of cross members are missing or detached. Note: If onward transportation is permitted, it is essential that detached cross members are precluded from falling free.
Locking rods	One or more inner locking rod is non-functional. Note: Some containers are designed and approved (and so recorded on the CSC Plate) to operate with one door open or removed.

4.2 The effect of two or more incidents of damage in the same structurally sensitive component, even though each is less than in the above table, could be equal to, or greater than, the effect of the single damage noted in the table. In such circumstances, the authorized officer may stop the container and seek further guidance from the Contracting Party.

4.3 For tank containers, the attachment of the shell to the container frame should also be examined for any readily visible serious structural deficiency comparable to that specified in the table. If any such serious structural deficiency is found in any of these attachments, the control officer should stop the container.

4.4 For platform containers with folding end frames, the end frame locking mechanism and the hinge pins about which the end frame rotates are structurally sensitive and should also be inspected for damage."

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