CSC

Convention for Safe Containers

June 2014

The objective of CSC is to ensure a high level of **safety of human life** by formalizing common international safety requirements for the structural design and ongoing inspection and maintenance of cargo containers.
CSC is an international agreement resulting from the 1972 International Convention for Safe Containers.

The countries adopting CSC are known as *Contracting Parties*, for example, the USA is a contracting party.

CSC is administered by the governments of the Contracting Parties or by organizations designated by the governments (such as classification societies); for example:

- ABS (American Bureau of Shipping) in the USA,
- CCS (China Classification Society) in China
- BV (Bureau Veritas) in France

Approvals under the authority of a Contracting Party are accepted by other contracting parties. As a result, containers can operate worldwide under a single set of safety regulations.
CSC sets international standards in two areas:

- **Design type approval** to ensure that new containers are designed and built to meet ISO (International Standardization Organization) dimensional and strength requirements.

- **Safety inspections** to ensure that containers are maintained in safe condition during their operating lives.
Design type approval

The classification society:

- reviews the container design
- load tests prototype containers to ISO requirements
- load tests samples from production (e.g. one of each 100 units produced)
- checks dimensions to ISO standards
- inspects production

Designs meeting all CSC and ISO requirements are assigned a **CSC number** which appears on the safety approval plate (CSC plate) of every container built to that design.
Safety approval plate showing the classification society design approval

<table>
<thead>
<tr>
<th></th>
<th>Date Manufactured</th>
<th>Identification No.</th>
<th>Maximum Gross Weight</th>
<th>Allow. Stack. Wt. 1.8G.</th>
<th>Racking Test Load Value</th>
<th>One Door Off: Allow. Stack. Wt. 1.8G.</th>
<th>Racking Test Load Value</th>
<th>End Wall Strength</th>
<th>Prototype Tested to 32,500 KG MGW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>05/2003</td>
<td>TTNU 565</td>
<td>30,480 kgs</td>
<td>216,000 kgs</td>
<td>15,240 kgs</td>
<td>121,920 kgs</td>
<td>11,430 kgs</td>
<td>5,650 kgs</td>
<td>32,500 kg MGW</td>
</tr>
<tr>
<td>Identification No.</td>
<td>565</td>
<td>124</td>
<td>67,200 lbs</td>
<td>476,190 lbs</td>
<td>33,600 lbs</td>
<td>268,780 lbs</td>
<td>25,200 lbs</td>
<td>12,460 lbs</td>
<td></td>
</tr>
</tbody>
</table>
The classification society’s decal is placed on the door of the container
Safety Examinations

The CSC Examination requirements are:

1) Have the first safety examination no later than five years from the date of production and ...

2) Have re-examinations at least every thirty months thereafter.

The objective of the Examinations is to determine whether the container has damage that can place a person in danger.
Safety examinations may be accomplished in one of two ways:

1) **Periodic Examination Scheme (PES):** this is the original approach that is currently generally used by small operators and requires the display of the “next examination date” or “NED” on the CSC plate.

2) **Approved Continuous Examination Program (ACEP):** the system currently used by most container owners and operators.

Both procedures are intended to ensure that containers are maintained to the required level of safety.
1) Periodic Examination Scheme

A decal is affixed to the safety approval plate that lists the month and year for the next scheduled safety inspection. In some cases, the first examination date is engraved on the CSC plate.

If the month and year have passed, the prior inspection has expired.
Safety approval plate with periodic examination decal showing date of next required safety inspection
2) **Approved Continuous Examination Program (ACEP)**

ACEP is based on the premise that the safety examinations taking place in the normal operation of the container meet the CSC’s five year and the thirty month examination requirements.

Normal operating inspections include off-hire and on-hire inspections for leased containers and in-service inspections for shipping line operating containers.

Unlike the Periodic Examination Scheme, the Approved Continuous Examination Programs do not have expiration dates.

ACEP is assigned to the owner/operator of the container by the Administration of the Contracting Party (e.g. in France by Bureau Veritas and in the USA by the US Coast Guard).
Safety approval plate with Approved Continuous Examination Program (ACEP) marking or decal

- **Approved Continuous Examination Program - ACEP**
- **Country code where the approval for the ACEP was granted**
- **Year when the approval for the ACEP was granted (this is not an expiration date)**
- **ACEP registration number**

**ACEP Decal**
• Safety Examination Standards

The standards that apply for safety examinations are those agreed upon between the administration of the contracting party and the container owner/operator at the time of the assignment of the ACEP approval.

Standards will vary depending on location, but usually as a minimum, large deflections, cracks and tears, and missing parts involving structurally significant components that could present safety risks to personnel are not allowed.

• Party Responsible for Safety Examinations

Although the CSC regulations assign responsibility for examinations to the container owner; practical considerations, commercial practice, and contractual agreements transfer the responsibility to the party in possession of the container (e.g., in the case of equipment being interchanged between owners and users).
Consolidated Data Plate

In addition to the CSC information, the consolidated data plate contains the following information:

**TIR Approval**
Confirmation that the container meets the requirements for international transport under customs seal. The container is designed such that goods cannot be removed from or introduced into the container without breaking the customs seal or without leaving obvious traces of tampering.

**Owner’s Identification** – Owner’s serial number, name and address.

**Floor Treatment - TCT**
Confirmation that the wood floor is chemically treated to prevent infestation per Australian regulations.

**Manufacturer’s Identification**- Name and address.
Consolidated Data Plate

TIR Approval

Owner’s Identification

CSC Approval

TCT – Floor Treatment

Manufacturer’s Identification
CSC, and other internationally agreed upon regulations, allow containers to travel among different countries without being subjected to various, inconsistent local regulations.
## ACEP / PES Identification Requirements

<table>
<thead>
<tr>
<th>Lessor</th>
<th>Lessee</th>
<th>Plate marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEP</td>
<td>ACEP</td>
<td>Not specified by IMO *</td>
</tr>
<tr>
<td>ACEP</td>
<td>PES</td>
<td>Lessee PES decal</td>
</tr>
<tr>
<td>PES</td>
<td>ACEP</td>
<td>Lessee ACEP decal</td>
</tr>
</tbody>
</table>

*Some industry participants suggest maintaining Lessor ACEP.*
### Conditions defined as unsafe by CSC

Leasing company interchange standards are far more stringent than CSC safety standards

<table>
<thead>
<tr>
<th>Structurally sensitive component</th>
<th>Serious structural deficiency</th>
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| 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. |
| Understructure                   | Two or more adjacent cross members missing or detached from the bottom rails. 20% or more of the total number of cross members 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 rods are non-functional.  
**Note:** Some containers are designed and approved (and so recorded on the Safety Approval Plate) to operate with one door open or removed. |
CSC Plate Identification Number

- **Effective July 2014**, the Identification number on the CSC plate will be the manufactures’ identification number and no longer the owners’ identification number.

- The owners’ identification number will appear in the owners’ identification section of the consolidated data plate.

- The Manufacturers Identification number shall be marked on at least two of the following locations:
  - the top or rear face of the left rear corner fitting
  - the top or front face of the left front corner fitting