



Container certification quality scheme

Part I. General Guidance.

CLIENT INFORMATION NOTE

Foreword.

At LRQA we are a Certifying Authority for a wide range of intermodal regulations including; ADR, RID, IMDG, USDOT, Transport Canada, CSC, TPED and IMO Msc/Circ.860. The goal is to perform container design, inspection, and certification requirements in a clear and concise set of rules for both LRQA and its clients.

It covers the three main types of intermodal equipment for both new construction and in-service inspection:

1. **CSC/ISO/Intermodal Containers.**
2. **Offshore containers and equipment.**
3. **Tanks for the transport of dangerous goods.**

General

The LRQA Container certification Quality Scheme is published over four individual procedures.

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|---------------------|---------------------------------------------------------------------------------------------|
| CQS Part I | General Guidance. |
| CQS Part II | CSC/ISO/Intermodal Containers, (Part A: New Manufacture & Part B: In-service). |
| CQS Part III | Offshore containers and equipment, (Part A: New Manufacture & Part B: In-service). |
| CQS Part IV | Tanks for the transport of dangerous goods, (Part A: New Manufacture & Part B: In-service). |

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1. Steps to certification for new manufacture

For type approval and certification, there are three basic steps:

- Appraisal and approval of the container's design
- Survey during the manufacturing of the container including a review of the manufacturer's traceability according to their Quality Management System
- Testing of the prototype

Where a container standard requires the manufacturer to ensure the quality of the procedures and facilities by implementing a quality management or quality assurance system at least in accordance with ISO 9001 or equivalent, the system shall be reviewed to the satisfaction of LRQA.

2. General requirements for Design Appraisal for Type Approval

The container's structural drawings are reviewed according to the standards and regulations. Details of the materials cargo containment structure, as well as the lifting and securing arrangements are appraised.

Drawings must show:

- Dimensions and load ratings
- Material specifications
- Details of welding methods and weld sizes
- Details of any other fastening methods
- Details of any special treatment for materials
- Details of sealant materials
- Details of corner fittings and closure mechanisms, together with name(s) of the manufacturer(s) of these parts
- Mandatory marking
- Regulations and standards (including editions)
- If applicable product information (UN-number)

3. General requirements for Survey & Inspection during either Type Approval or Production Inspection

A qualified LRQA surveyor will inspect the manufacturer's process to confirm they meet all code and regulatory requirements. The Inspection program typically includes:

- Compliance to the Type Approval, Design Appraisal Document and QMS requirements
- Verification and testing of materials
- Acceptance of welder qualification
- Acceptance of weld procedures
- Acceptance of NDE procedures
- Acceptance of NDE operator qualifications
- Witness and acceptance of prototype testing
- Verification of identification and marking
- LRQA can also provide an enhanced inspection service. This includes an audit at the manufacturer's facility to include client requirements for which the level of inspection can be determined by a "Competent Manufacturer"

4. General Requirements for Testing of Prototype

Type approval of a container involves the construction and prototype testing according to the applicable standards / regulations, at a facility suitable to undertake such testing. Some regulations, such as Transport Canada require testing facility to hold specific approvals.

Type testing includes all specified tests shown in the relevant standard and regulation applicable to the below container types:

- CSC containers
- Offshore containers
- Tanks (all types)

5. General requirements for Type Approval

It is the client's responsibility to ensure that the Type Approval for the units being manufactured comply to the latest accepted referenced Standard/ Regulations and are acceptable for use with the specified regulation for the date when the items are 'placed on the market'. Type approvals which do not comply or are outside the 10 years validity need to be re-appraised and tested where applicable.

6. General requirements for In-service Inspection & Certification

In-service Inspection

An LRQA qualified surveyor will inspect the manufacturer's process to confirm they meet all code and regulatory requirements. Inspection programs may include but are not limited to:

For intermediate and periodic in-service inspections:

- Inspection of the unit per inspection standard including witness of testing as applicable
- Inspection of the safety devices as applicable and other ancillary items such as offshore sling sets as defined in the scope
- Verification of identification and marking, issuance of report and certification

For repairs and modifications (exceptional inspection):

- Design appraisal for the proposed modification or repair
- Verification of materials, (including repaired areas)
- Acceptance of welder qualification
- Acceptance of weld procedures
- Acceptance of NDE procedures (where appropriate)
- Acceptance of NDE operators (where appropriate)
- Witness and acceptance of testing
- Verification of identification and marking, issuance of report and certification
- Inspection of the unit [Prior and after modifications or repairs]

7. General requirements of modified units

For units which have been subject to modification or repairs, there may be a need to consult the LRQA design team, as to whether further design appraisal is required. If further design appraisal is required, then the following steps should be followed:

1. Details of existing approval(s).
2. Most recent inspection certificate/ inspection report (including regulatory requirements such as CSC/ADR/RID/IMDG, where applicable).
3. Details of any known repairs or modifications undertaken on the unit.
4. Description of the proposed modification, and a statement including how the regulations are met, and what certification is required. This should be in the form of a referable drawing (i.e., a document number or drawing number with a revision number, which can be referenced on the LRQA authorising document).
5. Supporting documentation for all modifications (which may include, but is not limited to; welding procedures, welder approvals; NDT to be undertaken; proposed test program, justification/calculations for the modification).
6. Any other information which may be of assistance in evaluating the review.
7. In-service survey including exceptional inspection.
8. An LRQA qualified surveyor will inspect the manufacturer's process to confirm they meet all code/ regulatory requirements
9. Inspection programs may include but not limited to:
 - Verification of materials, (including repaired areas).
 - Acceptance of welder qualifications.
 - Acceptance of weld procedures
 - Acceptance of NDE (where appropriate)
 - Acceptance of NDE operators
 - Witness and acceptance of testing (where appropriate)
 - Verification of identification and marking
 - Inspection of the unit

8. List of contacts

Our dedicated experts will make sure your containers conform to the correct standards and regulations. They have many years of experience with;

- Container design and inspection standards
- Certifying various container type from common box containers to unique container designs
- Sector-specific design appraisal and inspection

Get in touch

Visit www.lrqa.com or more information

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