

# Freight container approval

## Arrangements in Great Britain (the Green Guide)

### Docks Information Sheet DIS8

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This document sets out the arrangements in Great Britain for the approval of containers in accordance with the Freight Containers (Safety Convention) Regulations 1984.

It contains advice for manufacturers and owners who need to apply for container approval, and organisations who wish to be considered for appointment to approve containers.

The Health and Safety Executive authorises suitable organisations to carry out the functions of approving containers. It also lays down the conditions that organisations will be expected to meet before being considered for appointment. Any organisation that meets these conditions (see paragraphs 1–10) and wishes to be considered for appointment should email [docks@hse.gsi.gov.uk](mailto:docks@hse.gsi.gov.uk).

Paragraphs 11–36 explain how container manufacturers and owners may apply for container approval and the procedure to be adopted by authorised organisations in considering such applications. Details of how to apply for container approval can be found at [www.hse.gov.uk/ports/containers.htm](http://www.hse.gov.uk/ports/containers.htm).

After a used container has been approved, and before the safety approval plate is fixed to it, it must be examined in accordance with either a scheme approved by HSE or a procedure approved or prescribed by another State that has ratified, accepted, approved or acceded to the International Convention for Safe Containers. Details of the procedure for approval of examination schemes by HSE can be found at [www.hse.gov.uk/ports/containers.htm](http://www.hse.gov.uk/ports/containers.htm).

These arrangements apply to any type of container which conforms to the definition of 'container' given in the Freight Containers (Safety Convention) Regulations 1984.

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## **Appointment and functions of authorised organisations**

### ***Arrangements in Great Britain***

1 Article IV of the International Convention for Safe Containers requires each ratifying State to establish an effective procedure for the testing, inspection and approval of containers in accordance with the criteria specified in Annexes I and II of the Convention. It also provides that a ratifying State may entrust such testing, inspecting and approving to organisations duly authorised by it.\*

2 The Health and Safety Executive is authorised to make the necessary arrangements in Great Britain, and appoints suitable organisations to undertake this work on its behalf.

3 Such appointments are made at HSE's discretion. Before granting an appointment, HSE must be satisfied that the applicant will, throughout the appointment, meet the conditions of eligibility set out in paragraphs 4–9 and be capable of carrying out, and will observe, the requirements set out in paragraph 10.

### ***Conditions of eligibility for appointment as an authorised organisation***

4 The organisation, its directors and staff must not be designers, manufacturers, suppliers, repairers, owners or operators of containers. They must not become directly involved in the design, manufacture, supply, repair, ownership, or operation of containers, but this does not preclude the possibility of exchanges of technical information between bodies carrying out those functions and the authorised organisations.

5 The organisation and its staff, while acting as an authorised organisation, must carry out the functions listed in paragraph 10:

- (a) with the highest degree of professional integrity and technical competence, and must be free from any pressure or inducement, particularly financial, which might influence judgement of the results of tests or examination; and
- (b) only in accordance with the Convention as explained in paragraphs 11 to 36 of this document.

6 The organisation must have at its disposal the necessary trained and experienced technical and administrative staff for it to perform the functions listed in paragraph 10.

7 Staff impartiality must be guaranteed and their remuneration must not depend on the number of approvals, tests and examinations carried out, or the results of such approvals, tests or examinations.

8 On appointment, the organisation must indemnify itself and HSE against civil liability arising out of, or in connection with, the organisation's performance or purported performance of its functions under the appointment.

9 The organisation and its staff must observe professional secrecy with regard to all proprietary information gained in carrying out their tasks, except insofar as HSE may request such information.

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\* This Article also states that application for approval of a container may be made to any ratifying State and the UK has indicated to the International Maritime Organization (IMO) its intention to provide facilities for the approval of containers of any foreign manufacturers or owners who may wish to obtain approval of their containers in this way.

## ***Functions of an authorised organisation***

10 An authorised organisation should carry out container approvals in accordance with the requirements of the Convention as explained in paragraphs 11–36 of this document. Its functions include, in particular:

- (a) Administrative functions:
  - (i) keeping copies of applications for approval, and all drawings, calculations and specifications supplied in connection with each application;
  - (ii) maintaining adequate records of all surveys, tests and inspections;
  - (iii) keeping copies of each certificate of approval issued by it.
- (b) Technical functions:
  - (i) evaluating the design, drawings, calculations and specifications of new containers;
  - (ii) satisfying itself that the manufacturer's works facilities are such as to ensure proper construction of containers and inspecting such facilities as necessary;
  - (iii) satisfying itself that the manufacturer is operating a suitable quality control programme by inspecting such a programme as necessary;
  - (iv) satisfying itself of the adequacy of any test facilities used;
  - (v) supervising and witnessing testing of prototype containers and such testing of production containers as may be considered necessary and carrying out such surveys of production containers as may be considered necessary (see paragraph 16 below);
  - (vi) considering any proposed modification to design types to ensure that the validity of previous tests is not affected; and
  - (vii) considering applications for approval of used containers and the evidence supplied in accordance with the requirements of paragraphs 22–24, and 28–32 below.

## **Procedure for approving containers**

11 Organisations appointed under the arrangements set out in paragraphs 1–10 above will, as from the date of their appointment, be able to approve containers in accordance with the arrangements set out in this document. Container manufacturers and owners will be able to apply for approval to any appointed organisation of their choice.

### ***Approval of new containers by design type***

12 The method of approval of new containers by design type must be as set out in paragraphs 13–21.

#### ***Application for approval by design type***

13 The applicant, usually the manufacturer, should apply to an authorised organisation for approval in respect of the design type and should:

- (a) supply all drawings and specifications relating to the design;
- (b) supply in writing all such other relevant information as the authorised organisation may request;

- (c) supply in writing details of the identifying symbols which they propose to allocate to the containers to be manufactured in accordance with the design type;
- (d) give all details concerning any previous application in respect of that design type which has been refused;
- (e) give an undertaking that the relevant requirements of paragraph 19 will be complied with.

*Action of the authorised organisation when approving by design type*

14 The authorised organisation to which application has been made should:

- (a) consider the documents supplied in accordance with subparagraphs 13(a)–(c) and, if applicable, (d);
- (b) select a container manufactured in accordance with, and representative of, the design type, and carry out on it, or supervise the carrying out on it, of all the appropriate tests. These should be either those specified in Annex II of the Convention or, if appropriate to the design in question, those tests specified by International Standard 1496 (ISO 1496), being tests which are equivalent to those specified in the Convention; and
- (c) inspect the manufacturer's quality control measures.

15 If, having completed the tests required by paragraph 14(b), the authorised organisation is satisfied that any container manufactured in accordance with the design type submitted for approval would meet the requirements of those tests, it should issue a certificate of approval to the applicant in respect of that design type. Receipt of the certificate entitles the applicant to fix a safety approval plate, in accordance with the Freight Containers (Safety Convention) Regulations 1984, to each container manufactured in accordance with that design type.

16 The authorised organisation should make all such arrangements as it considers necessary (including inspection of the manufacturing processes) to ensure that all containers are manufactured in accordance with the design type. In particular it should:

- (a) inspect and check the dimensions of sample containers; and
- (b) carry out or supervise the tests specified in paragraph 17 on production containers selected at random at the ratio stipulated in paragraph 18;

17 The tests to be carried out in accordance with the preceding paragraph must include:

- (a) where appropriate to the design, a concentrated load test on the floor of the container as specified in Annex II of the Convention (or ISO 1496); and
- (b) a lift test by the top corner fittings (or, where no top corner fittings are fitted, by the bottom corner fittings) as specified in Annex II of the Convention (or ISO 1496). (This test may, however, be waived provided that each end frame of each production container is tested in tension by an arrangement whereby each corner post assembly is subjected to a force of  $R/2$ , where  $R$  is the maximum operating gross weight or rating of the container. The authorised organisation should make occasional checks of these tests and their results, but would not be expected to carry them out or supervise them.)

18 The tests required by paragraph 17 must be carried out on either:

- (a) at least one container in every 50 (or in every batch, where the batch number is less than 50); or
- (b) at least one container in every 100 (or in every batch, where the batch number is less than 100) provided that circumstances exist to justify a reduction in the rate of testing

and that the reduced rate of testing has been approved by the head office of the authorised organisation.

### *Duties of the applicant after being granted an approval by design type*

19 The applicant, after being granted approval of a design type in accordance with the preceding paragraph:

- (a) should arrange for such containers of the relevant approved design type as the authorised organisation which granted the approval may request to be made available to that authorised organisation for inspection and testing;
- (b) should not allow the design type to be changed in any way relevant to safety without the previous written consent of the authorised organisation;
- (c) should ensure that the authorised organisation is granted all necessary facilities for the purpose of, at any time;
  - (i) inspecting the manufacturing processes; and
  - (ii) inspecting and testing further individual containers of the approved design type;
- (d) should ensure that the authorised organisation is notified of the intention to start manufacturing any series of containers in accordance with the approved design type;
- (e) where a reference (an 'approval reference') has been allocated by the authorised organisation to a design type approved by it, should not use the approval reference, or permit it to be used, in respect of any container unless that container conforms in every significant particular with the approved design type;
- (f) should have a safety approval plate marked in accordance with the Schedule to the Freight Containers (Safety Convention) Regulations 1984 fixed to each container of the approved design type and to no others. Line 9 of that safety approval plate should be marked to show a date (expressed in month and year only) for the first examination of the container, which must be not later than 5 years after the date marked on line 2 of the plate; and
- (g) should arrange for a record to be kept of all containers manufactured in accordance with the approved design type. This record should contain at least the following particulars:
  - (i) the number entered in line 3 of the safety approval plate;
  - (ii) the date entered in line 2 of the safety approval plate;
  - (iii) the date of delivery by the manufacturer to a customer; and
  - (iv) the name and address of the customer to whom it was delivered.

### *Approval of subsequent production series of approved design types*

20 Where it is proposed to manufacture a further series of containers in accordance with an approved design type, manufacture should not start until the manufacturer has, in accordance with paragraph 19(d), first notified the authorised organisation which granted the original approval and received consent in writing. The authorised organisation may give consent without requiring further tests over and above the batch tests specified by paragraph 16, provided it is satisfied that there have been no changes in the design type which would change the results from those containers previously tested.

### ***Modification of design type***

21 Where a manufacturer proposes to modify the design type of any container, they must apply to the authorised organisation which granted the approval. The authorised organisation, if it gives its approval to the modification, must do so in writing pursuant to paragraph 19(b). It may, except in the case of the batch tests specified in paragraph 16, give such consent without requiring further tests to be carried out if it is satisfied that the results of such tests would not be materially different from those obtained from tests of the original design type.

### ***Modification of approved containers***

22 Where the owner of one or more containers of an approved design type wishes to make a modification which could affect safety, they must apply to the authorised organisation which granted the approval. Alternatively, the owner may apply to another authorised organisation in which case the owner must provide them with all relevant documents relating to the original approval. The authorised organisation, if it gives its consent in writing to the modification, may do so without requiring further tests to be carried out on the container or the original design type, if it is satisfied that no materially different test results would be obtained from those of the original design type. If an approval under this paragraph is given by an authorised organisation which did not grant the original approval, a new approval number should be allocated and the owner should be notified that this has been done.

23 Where the owner of one or more containers of an approved design type wishes to increase the maximum operating gross weight or rating (R), they must apply to the authorised organisation which granted the approval. Alternatively, the owner may apply to another authorised organisation in which case the owner must provide them with all relevant documents relating to the original approval. In either case, the authorised organisation should carry out such of the following tests corresponding to the new rating as it deems fit:

- (a) lifting from the top corner fittings;
- (b) appropriate side-wall and end-wall tests;
- (c) if the owner wishes to increase the original allowable stacking weight, stacking tests.

24 These tests, if carried out, may be on a single container or, in the case of a design type, on one container representative of the design type. If the authorised organisation is satisfied, it must give its consent in writing. If an approval under this paragraph is given by an authorised organisation which did not grant the original approval, a new approval number should be allocated and the owner should be notified that this has been done.

### ***Approval of an individual new container***

#### ***Application for approval***

25 The applicant, who should normally be the manufacturer, should apply to an authorised organisation for approval in respect of that container and should give all details concerning any previous application, in respect of that container, which has been refused.

#### ***Action of the authorised organisation when approving an individual new container***

26 The authorised organisation to which application has been made should:

- (a) carry out on the container, or supervise the carrying out on it, all applicable tests specified in Annex II of the Convention or if appropriate to the design in question,

those applicable tests specified by ISO 1496, being tests that are equivalent to those specified in the Convention; and

- (b) if it is satisfied that the container complies with the requirements of those tests, issue a certificate of approval to the applicant in respect of that container. The receipt of the certificate entitles the applicant to fix a safety approval plate to the container in accordance with the Freight Containers (Safety Convention) Regulations 1984.

#### *Duties of the applicant after being granted approval of an individual new container*

27 The applicant, after being granted approval of an individual new container in accordance with the preceding paragraph, should have a safety approval plate fixed to the approved container and to no others. The details to be entered on the safety approval plate should be in accordance with the Schedule to the Freight Containers (Safety Convention) Regulations 1984 and line 9 of that safety approval plate should be marked to show a date (expressed in month and year only) for the first examination of the container, which must be not later than 5 years after the date marked on line 2 of the plate.

#### **Approval of used containers**

28 The application for approval of used containers should be as set out in paragraphs 29–31 or, where approval cannot be granted under those arrangements, as set out in paragraph 32. The application and approval may be in respect of all or any of the containers which are in the applicant's ownership.

#### *Application for approval of used containers: normal procedure*

29 The owner of used containers should apply to an authorised organisation for approval of the containers and should submit details of any previously refused application in respect of any container included in the application and:

- (a) written particulars of:
  - (i) the date and place of manufacture of the containers;
  - (ii) the name of the manufacturer and either the manufacturer's identification numbers for the containers or their fleet number to appear on line 3 of the safety approval plate, the owner's fleet numbers for the containers;
  - (iii) the maximum operating gross weight of each container;
  - (iv) the maximum allowable static stacking weight in kilograms and pounds;
  - (v) all such other matters as are required by regulation 6 of the Freight Containers (Safety Convention) Regulations 1984 to be marked on lines 6 to 8 of the safety approval plate; and
- (b) either:
  - (i) a statutory declaration that a container of the same design has been operated safely in maritime or inland transport, or both, for a period of two years or more; or
  - (ii) written evidence that each container was manufactured in accordance with a design type which has been tested and found to comply with the technical requirements of Annex II of the Convention (or, if applicable, of ISO 1496) insofar as they apply to it (other than those requirements which relate to end-wall and side-wall strength tests); or



- (iii) written evidence that each container was constructed to a standard equivalent to that required to perform satisfactorily the applicable tests specified in Annex II of the Convention or, if applicable, in ISO 1496 (other than the requirements which relate to end-wall and side-wall strength tests); and
- (c) in the case of applications based on evidence supplied in accordance with subparagraphs 29(b)(ii) or (iii), a written assurance that, to the best of the applicant's knowledge, no modification previously carried out on any container included in the application has adversely affected the safety of the container to any significant degree or rendered inaccurate the information relating to that container supplied with the application. If this assurance cannot be given, full details of the modification should be submitted with the application.
- (d) a written assurance that safety approval plates will not be fitted to the containers before each container is examined in accordance with either an examination scheme approved by HSE or a procedure approved or prescribed in accordance with regulation 2 of Annex I of the Convention by a State in which the owner has an office or is domiciled or incorporated, being a State which has ratified, accepted, approved or acceded to the Convention.

*Action of authorised organisation when approving used containers: normal procedure*

30 The authorised organisation must consider the written particulars supplied in accordance with paragraph 29 and after investigation, if it is satisfied, issue a certificate of approval to the applicant in respect of those containers. Receipt of that certificate entitles the applicant to fix safety approval plates to the containers in accordance with regulation 6 of the Freight Containers (Safety Convention) Regulations 1984 after they have been examined in accordance with the scheme referred to in paragraph 29(d) and before they are next used.

*Duties of the applicant after being granted approval of a used container*

31 The applicant, after being granted approval of a used container in accordance with the preceding paragraph and after the container has been examined in accordance with the scheme referred to in paragraph 29(d), should have a safety approval plate fixed to each approved container and to no others. Where the number quoted in accordance with subparagraph 29(a)(ii) is the owner's fleet number, the owner should, where possible, maintain a record correlating this number with the manufacturer's number. The details to be entered on the safety approval plate should be as specified in the Schedule to the Freight Containers (Safety Convention) Regulations 1984.

*Method of approval of used containers: alternative procedure*

32 The owner of a used container, if they do not supply all the particulars specified in paragraph 29, or where approval cannot be granted under paragraph 30, should apply to an authorised organisation in accordance with the procedure for approval of new containers by design type specified in paragraphs 12–21. Alternatively, if appropriate, application may be made in accordance with the procedure for approval of individual new containers specified in paragraphs 25–27. When an application is made under this procedure, the requirements of paragraphs 12 and 25 which are appropriate to an application from an owner in respect of a used container must be complied with, except that:

- (a) the requirements of Annex II of the Convention or, if applicable, of ISO 1496 in relation to end-wall and side-wall testing do not apply;
- (b) the authorised organisation may, if it is satisfied that containers of the same design as that submitted for approval have been in service, waive, to such an extent as it

sees fit, any or all of the test requirements (other than those requirements in respect of lifting and floor tests) and of paragraph 13(a) relating to the supply of drawings; and

- (c) every container should, before the safety approval plate is fixed to it, be examined in accordance with the scheme referred to in paragraph 29(d).

An application under this procedure for approval by design type of used containers, should be accompanied by a statement that the application is only in respect of containers in the applicant's controls and the approval granted must only be in respect of those containers.

### ***Refusal of application for approval***

33 Where an application for approval of a container or a design type of container is refused, the authorised organisation must give the applicant details of the reason for the refusal.

### ***Withdrawal of approval***

34 If, for any reason relating to safety, an authorised organisation is given grounds to believe that any containers for which it has issued approval should not have been approved, it may withdraw approval in respect of those containers after giving at least 30 days notice in writing to the person to whom the approval was issued, to any other person who may be expected to be affected, and to HSE. Any such notice should state why withdrawal of approval is proposed.

### ***Records to be maintained by an authorised organisation***

35 An authorised organisation must:

- (a) keep copies of all applications for approval and all drawings, calculations and specifications supplied in connection with each application;
- (b) keep a record of all surveys, tests and inspections which it has carried out or supervised, and that record (or a facsimile thereof), must be made available on request to HSE at any time; and
- (c) ensure that a facsimile of each certificate of approval it issues is available for inspection and is made available on request to any bailee or lessee of a container to which that certificate relates, or to any owner of such a container subsequent to the person to whom the certificate was issued, or to HSE at any time.

36 Records relating to unapproved applications should be retained for five years following the date of refusal, and records relating to approved applications should be retained throughout the life of any container to which the approval relates.

### ***Powers of the Health and Safety Executive***

37 If HSE considers that an authorised organisation has not been carrying out its functions properly, it may:

- (a) act in place of the authorised organisation either by approving containers or by withdrawing approval of containers; or
- (b) modify the conditions of, or withdraw the appointment of, the authorised organisation.

38 If HSE is given reason to believe that any approved containers should no longer be approved, it may withdraw approval in respect of those containers after giving at least 30

days notice in writing to the person to whom the approval was issued and to any other person who may be expected to be affected.

## **Further information**

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [www.hse.gov.uk/](http://www.hse.gov.uk/). You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

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