

Title: Review of the Freight Container (Safety Convention) Regulations 1984 IA No: HSE0098 RPC Reference No: RPC-3118(3)-HSE Lead department or agency: Health and Safety Executive (HSE) Other departments or agencies: N/A	Impact Assessment (IA)			
	Date: 29/11/16			
	Stage: Final Stage			
	Source of intervention: International			
	Type of measure: Secondary legislation			
Contact for enquiries: Janice.Martin@hse.gov.uk; Luisa.Tolu@hse.gov.uk				
Summary: Intervention and Options			RPC Opinion: Fit For Purposes	

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
-£1.61m	-£1.60m	£0.2m	Not in scope	Non qualifying provision

What is the problem under consideration? Why is government intervention necessary?

In 1978, the UK ratified the International Convention for Safe Containers 1972 (CSC). By ratifying it, the UK agreed to be bound by the treaty and its terms, in accordance with international law. Great Britain (GB) implements the CSC domestically through the Freight Containers (Safety Convention) Regulations 1984 (the Regulations). The Maritime Safety Committee (MSC), the highest technical body of the International Maritime Organization (IMO) has adopted a number of amendments to CSC. These amendments are not yet implemented in GB. The terms of the CSC mean the UK government should give effect to the amendments by updating the Regulations. If the Regulations were not updated in line with CSC then the UK government would not fulfil its international treaty obligations.

What are the policy objectives and the intended effects?

(i) To update the Regulations and supporting guidance to give effect to the changes to CSC in line with international treaty obligations (ii) To ensure the implementation of key time-bound amendments to the CSC, adopted by the MSC under resolutions MSC 310 (88) and MSC 355 (92) which came into force on 1 July 2012 and 1 July 2014 respectively (iii) The intended effect is to implement the amendments to CSC in a way that is proportionate to the risks, minimises the impact on businesses, and provides a level playing field and increased certainty for the logistics sector in GB

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Option 1 - Update the Regulations, in the least burdensome way possible, to come into force in April 2017. The CSC is an international treaty that the UK ratified in 1978. The law of treaties is articulated by the Vienna Convention on the Law of Treaties that provides that ratification of a treaty signifies the State's consent to be bound by the treaty and its terms in accordance with international law. Since 1978, the UK has therefore agreed to be bound by the terms of the CSC and should give effect to its terms. For these reasons, Option 1 is the only viable option.

A "do nothing" option has not been considered as it would not comply with the UK's international treaty obligations, and is therefore not a viable option. However, the 'do nothing' scenario is used as the notional baseline against which Option 1 is appraised.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 04/2022						
Does implementation go beyond minimum EU requirements?			N/A			
Are any of these organisations in scope?			Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/A		Non-traded: N/A	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister:  **Date:** 09/03/2017

Summary: Analysis & Evidence

Policy Option 1

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2015	PV Base Year 2017	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -3.44	High: -0.60	Best Estimate: -1.61

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.6	0.0	0.6
High	3.5	0.0	3.4
Best Estimate	1.7	0.0	1.6

Description and scale of key monetised costs by 'main affected groups'

Under the Best Estimate, 97% of the costs to business are to container operators who have to "conspicuously mark" any container that has limited racking and stacking capabilities. Around 75,000 containers would have to be marked in this way, leading to a transitional cost to the sector over the first three years of £1.5 million (in present value terms). The other costs are one-off costs due to familiarisation (2% of the total costs). Container operators would also need to change Safety Approval Plates on containers manufactured from 1st July 2014 and respond to an audit on their approved examination programmes and review every five years and 10 years respectively (1% of the total costs).

Other key non-monetised costs by 'main affected groups'

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Nil	Nil	Nil
High	Nil	Nil	Nil
Best Estimate	Nil	Nil	Nil

Description and scale of key monetised benefits by 'main affected groups'

No benefits have been monetised

Other key non-monetised benefits by 'main affected groups'

Updating the Regulations would remove any inconsistency with the implementation of the CSC in other countries and thereby remove a potential source of legal or business uncertainty for owners and operators.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5%
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The assumptions driving the costs are (1) the number of containers that would require new Safety Approval Plates, and (2) the number of containers that would require conspicuous marking. The figures used are based on stakeholder engagement in July 2015 and January 2016. The figures for (2) are likely an overestimate but cannot be revised based on data available.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m: N/A
Costs: 0.2	Benefits: Nil	Net: -0.2	

Evidence Base

Glossary of abbreviations

ACEP - Approved Continuous Examination Programme

ASHE - Annual Survey of Hourly Earnings

BRFM - Better Regulation Framework Manual

CSC - International Convention for Safe Containers 1972

EANDCB - Equivalent Annual Net Direct Cost to Business

FCSC - Freight Container Safety Convention Regulations 1984

GB - Great Britain

GLD - Government Legal Department

HSE - Health & Safety Executive

IMO - International Maritime Organization

MSC - Maritime Safety Committee

NED - Next Examination Date

OG – Operational Guidance

PES – Periodic Examination Schemes

SAP - Safety Approval Plate

Problem under consideration

1. The International Convention for Safe Containers 1972 (CSC), introduced by the International Maritime Organization (IMO), is aimed at maintaining a high level of safety of human life in the transport and handling of containers by providing generally acceptable test procedures and related strength requirements.
2. The UK implements the CSC in Great Britain (GB) via the Freight Containers (Safety Convention) (FCSC) Regulations 1984 and in Northern Ireland by way of the Freight Containers (Safety Convention) Regulations (Northern Ireland) 1992. Any changes to Northern Irish regulations are out of scope of this IA.
3. CSC sets out procedures for approved programmes (either an Approved Continuous Examination Programme (ACEP) or a Periodic Examination Scheme (PES))¹; this means containers used in international transport must be approved for safety by the Administration of a contracting party. HSE administers this in GB. A Safety Approval Plate (SAP), attached to each container, is required to indicate compliance and display relevant data. The next examination date (NED) and the ACEP details should be marked on the container on, or as close to the SAP as possible. The IMO has amended the CSC in response to incidents or concerns raised by signatories to CSC. The Maritime Safety Committee (MSC), the highest technical body of the International Maritime Organization (IMO), adopted these amendments. Four minor amendments were adopted in 1981, 1983, 1991 and 1993. Two further amendments in 2012 and 2014 introduce more significant physical changes to the SAP and additional safety tests.
4. As the UK ratified CSC in 1978, it must 'give effect' to the Convention in accordance with principles of international law. In order to do this, HSE must update the Regulations and supporting HSE guidance in line with the changes to CSC.
5. HSE first consulted on the review of the Regulations in January 2016. Responses to consultation led us to amend some of the proposals (as discussed in detail in paragraph 27). We produced an updated consultation stage IA that incorporated the change in our approach, and held another public consultation in October 2016 to test the revised proposals.²

Key changes

Updating the terminology on SAPs

6. The CSC sets out procedures for the testing, inspection and approval of containers. An approved container must display a SAP. The CSC also sets out procedures for approved examinations schemes (ACEP) whereby an authorised examiner must approve containers used in international maritime transport for safety. Once approved, a SAP is then attached to the container to indicate compliance and display relevant details.
7. The crux of the majority of the amendments is to ensure uniform use of terminology and to align physical dimensions and units to the SI system (international system of units).
8. Specifications for SAPs have also been updated in CSC. Regulation 4 of the Regulations would need to be amended as it refers, for example, to "maximum gross weight". This no longer aligns with the terminology used and would have to be replaced with "maximum operating gross mass". The changes to the specifications for SAPs apply to any containers manufactured since 1st July 2014.

¹ In GB, there are currently no approved PES, so the rest of the IA refers to ACEPs. However, where the text of this IA refers to ACEPs it also covers any future approved PES.

² The first consultation IA was submitted to the RPC on the 21st October 2015 under reference RPC-3118(1)-HSE. The second consultation IA was submitted to the RPC on the 24th August 2016.

Conspicuous Marking of Containers with Limited Stacking or Racking Capacity

9. Under the changes to CSC, those containers considered to have limited stacking or racking capacity will be required to be conspicuously marked in accordance with ISO 6346 standard.³ These containers are not currently required to be marked. ISO is the acronym for the International Organization for Standardization that develops voluntary International Standards. There is one member body per country (in the UK it is the British Standards Institution). The ISO standard is incorporated into the CSC which states at Annex I that the standard must be adhered to.

Testing Containers operating with one door removed

10. Under the changes to CSC, containers with one door removed would have to undergo additional tests before being approved for operation under CSC.

Provisions in Annex III and new operational guidance

11. A new Annex III has been added to the CSC. Annex III sets out some guiding principles for compliance with Article VI of the CSC on the limits of control that may be exercised whilst an approved container is located in the GB territorial area. The control is limited to verifying the container has a valid SAP and an ACEP or 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. In that case, an authorised officer appointed by HSE is able to apply restrictions in appropriate circumstances that can include an immediate out of service determination.
12. HSE guidance currently deals with containers that may be considered defective and that should be subject to restrictions on use. HSE will introduce Operational Guidance (OG) for HSE inspectors dealing with large container ports and who will act as authorised officers. Supporting online guidance for container owners and operators will be updated to reflect the new arrangements. In addition, existing industry guidance for dealing with damaged containers will be supplemented to take account of the requirements for Annex III. Proposed revisions to the guidance will ensure that the CSC requirements are met in a risk-based, proportionate manner.

Review of the approved programmes

13. Under the changes to CSC, ACEP programmes will have to be evaluated by audit at least once every 5 years to show the provisions of the approved programmes are being fully followed. The approved programmes should also be reviewed by the administration for the contracting parties (i.e. HSE) once every 10 years to ensure they remain viable. The requirements for ACEP programmes have been expanded to describe more clearly the validity of, and elements to be included in, such programmes and this will require updating HSE guidance to reflect the amendments.

Rationale for intervention

14. The CSC is an international treaty that the UK ratified in 1978. The law of treaties is articulated by the Vienna Convention on the Law of Treaties, which provides that ratification of a treaty signifies the State's consent to be bound by the treaty and its terms in accordance with international law. The UK has therefore since 1978 agreed to be bound by the terms of the CSC and to enact them in 'good faith'. As such, the UK is bound by the CSC and the amendments above and should give effect to them via the Regulations, in accordance with International law.
15. The UK employs secondary legislation (the Regulations) to implement the CSC domestically. If the Regulations are not updated in line with amendments to the CSC then the UK will not fulfil its international treaty obligations. The failure of a state to fulfil its obligations under a treaty may result in legal consequences.

³ Racking and stacking capacity refers to the mass and force that containers should be able to withstand, under specific conditions. If they do not meet the requirements these containers should be clearly marked as having limited racking or stacking capacity, to ensure they are operated in ways that would not hinder their structural integrity

16. Updating the Regulations now provides an opportunity to bring all amendments made to CSC together in a new, consolidated set of Regulations. Now that time-bound amendments are required, it is necessary that we implement all the changes to the CSC, as not doing so would be against the principle of good faith and so in contravention of the Convention. As such, the changes proposed to the Regulation do not go beyond the legal minimum and do not constitute gold plating.
17. In accordance with the Better Regulation Framework Manual (BRFM), this measure is a regulatory provision as it concerns the regulation of business activities, via subordinate legislation. Furthermore, it lasts longer than 12 months, does not concern tax, duties, levies, or financial assistance and does not relate to an area of devolved legislative competence. However, as the proposed changes to the Regulations give effect to an international convention and do not go beyond the minimum requirements laid down therein, it is a Non-Qualifying Regulatory Provision and would be out of scope of the Business Impact Target, in accordance with 'Exclusion A' of the BRFM.

Policy objective

18. The policy objectives are to
 - a. Replace the 1984 Regulations with a new, consolidated set of Regulations to be known as the Freight Containers (Safety Containers) Regulations 2017 and update supporting HSE guidance to give effect to the changes to CSC in line with international treaty obligations, as discussed in paragraphs 1 to 4;
 - b. Ensure the implementation of key time-bound amendments to the CSC, which relate to changes in terminology and to the identification and marking on the SAP of certain containers. These changes were adopted by the MSC under resolutions MSC 310 (88) and MSC 355 (92) which came into force on 1st July 2012 and 1st July 2014 respectively
19. The intended effect is to implement the amendments to CSC in a way that is proportionate to the risks, minimises the impact on businesses, and provides a level playing field and increased certainty for the logistics sector in GB.

Description of options considered

20. Only one option is proposed, Option 1, to update the Regulations, in the least burdensome way possible, to come into force in April 2017.
21. A 'do nothing' option would not comply with the UK's international treaty obligations, and is thus not a viable option. However, a 'do nothing' scenario acts as the notional baseline against which we compare Option 1.
22. Option 1 provides a sound basis for delivery of a fully considered amendment to the 1984 Regulations and is the only viable option.
23. No alternatives to regulation have been considered, as legal advice is that amendments to the CSC have to be implemented via changes to the Regulations.

Public Consultation

24. As explained in paragraph 5, HSE ran two public consultations on the proposal to amend the 1984 Regulations and the supporting guidance in order to give effect to the changes made to CSC. Specific questions on the assumptions in the Consultation Stage IA were also included in the first consultation document.⁴ We took a proportionate approach to consultation, which was in line with

⁴ The first consultation document can be found at: <http://www.hse.gov.uk/consult/condocs/cd278.htm>. The second consultation document can be found at <http://www.hse.gov.uk/consult/condocs/cd281.htm>

the expected impact. The first public consultation ran between 18 January and 26 February 2016 and the second public consultation ran between 17 October and 14 November 2016.

25. HSE received 11 responses to the first public consultation in February 2016. The respondents represented container operators, health and safety consultants, trade unions and container testing companies. Two of the respondents to the consultation document also provided information during the interviews conducted in June and July 2015.
26. Ten respondents favoured the proposal to amend but one respondent, a Trade Union with members working in the ports and docks industries, objected to the proposals because, in their opinion, they did not provide enough detail and assurance for how HSE would implement the requirements in the new Annex III for the CSC. Annex III supports Article VI of the CSC and outlines criteria to enable immediate out of service determinations for damaged containers.
27. HSE considered the Trade Union's objections and amended the proposals for the update of the Regulations. Thus the proposals now include;
 - i) New Operational Guidance (OG) for HSE Inspectors dealing with large container ports and who will act as authorised officers. The OG will be based on the criteria in Annex III of the CSC.
 - ii) An update of HSE's online guidance for container owners and operators to reflect the arrangements for damaged containers as required by Annex III; and
 - iii) Supplementing existing joint Industry/TU guidance for dealing with damaged containers.
28. A second public consultation took place between 17th October and 14th November 2016. This tested the revised cost estimates following responses from the first public consultation using a generic cost question.
29. HSE received four responses to the second public consultation. The respondents represented health and safety professionals and a trade union whose members work in the container industry and who objected to the original proposal. The trade union now strongly supports the proposal because the arrangements are much clearer. All three respondents who answered the cost estimate question indicated that cost estimates were reasonable. One respondent failed to answer this question. Based on this evidence, no changes have been made to the cost estimates in this final stage IA.

Research undertaken to inform the IA

30. The final stage IA is based on evidence gathered in the following:
 - Initial stakeholder engagement which ran in June and July 2015
 - The first public consultation which ran between 18 January and 26 February 2016
 - A second public consultation which ran between 17 October and 14 November 2016
31. We obtained initial evidence on the expected impacts of the changes to the Regulations under Option 1 by interviewing industry stakeholders from the freight container sector. We interviewed seven stakeholders in all between June and July 2015.
32. As part of the interviews, we contacted six experts, of which four agreed to the interviews. These experts are health and safety consultants in the industry who work on freight container safety, often in close collaboration with the IMO. We recruited them by following up contacts that HSE had already established.
33. We also interviewed other stakeholders in the industry, to better reflect the composition of the sector. We recruited these stakeholders by emailing companies on the ACEP list.⁵ We also contacted manufacturers of containers. Often, the last contact that these companies had from HSE was an email or letter confirming their ACEP number. This approach therefore gave us the

⁵ HSE's database of companies operating an ACEP scheme

opportunity to speak to unengaged stakeholders. However, we received a low response; we emailed 17 and spoke to three.

34. For the interviews, we adopted a semi-structured interview approach, based on a set of drafted questions, but with flexibility to adapt our questions to responses.
35. The rationale behind the recruitment strategy was so we could collect evidence from both highly engaged stakeholders, considered safety experts in the industry, and less engaged stakeholders.
36. We have used the evidence collected at the interviews and from two public consultations to inform the discussions of costs and benefits described from paragraphs 48 to 111. We consider this approach proportionate, given the relatively low-cost impact of the changes, and given that we have obtained responses from 15 distinct stakeholders in a sector comprising around 115 companies. All three of the respondents who answered the question regarding costs in the second public consultation agreed that our cost estimates were reasonable.
37. **Therefore, we have made no changes to assumptions, and cost estimates in this final stage IA (between paragraphs 38 to 109).** This was a proportionate approach given the responses, and extensive stakeholder engagement.

General assumptions

Number of companies affected

38. The main groups affected by the proposed changes would be container owners and operators. Currently, there are 101 companies on HSE's approved list (the ACEP list). Each company has a unique ACEP number that identifies them and is listed on the SAP on their containers.
39. We assume that the number of companies on the ACEP list remains constant over the appraisal period. We adopt this simplifying assumption based on an assessment of how the list has changed over time. Over time, the number of companies leaving the list has been more or less offset by the number of companies joining it.
40. Another 15 companies would also be affected by the proposed changes, but only in so far as they would wish to familiarise themselves with the updated Regulations and guidance. These comprise five companies appointed by HSE to approve containers⁶, and 10 other companies that are in the business of manufacturing or testing containers.

Degree of compliance with the convention

41. The interviews revealed that a number of companies are likely to have already applied the changes in the convention, as they are in force in other countries and the international nature of their work would have required them to become compliant. In addition, the nature of the industry does indicate that there are strong incentives for self-regulation. These incentives are the large costs that would be incurred if the structural integrity of a container were compromised during use. These include potential injury of workers, costs of damaged contents, costs of any delay, reputational damage, and potential damage to the container ship. Any degree of pre-existing compliance would reduce the costs to business of complying with changes to the FCSC Regulations.
42. As part of the interview process, responses to consultation, and based on HSE's sector knowledge, we have been able to make estimates of existing compliance in some of the areas affected by the changes to the Regulations. These are discussed in the relevant sections of the analysis.

Appraisal period and the discount rate

43. In accordance with Green Book guidance on cost-benefit analysis the discount rate applied is 3.5%.
44. In accordance with the IA toolkit in the BRFM, the analysis uses a 10-year appraisal period beginning in 2017, the year of implementation.

⁶ Listed here: <http://www.hse.gov.uk/ports/container-approval.htm>

Cost of time

45. In the analysis, we estimate the cost of business time based on a valuation of the workers' opportunity cost of time, which is assumed to be equal to their wage, plus the additional costs of employing them, such as pension, National Insurance contributions and other overheads.
46. We obtained the opportunity cost of time of staff at container repair facilities from two of the interviewees. They estimated that the cost of time, including overheads, ranges between \$10 and \$30 per hour depending on which country the repair facilities are based in. This is relevant as containers can be called in for repair anywhere in the world, regardless of whether they are owned or operated by GB based companies. Nevertheless, the cost of repair would still fall on the GB-based company.
47. We applied the annual average of the daily spot exchange rate for the 2015 calendar year (2015 is our price base year), 1.5286 \$/£.⁷ This gives a full economic cost of time of between £6.54 and £19.63 per hour with a best estimate of £13.08 per hour. Respondents to public consultation confirmed that this was a reasonable estimate.
48. For the purpose of familiarisation, the cost of time is based on the mean hourly wage for relevant professions obtained from the Annual Survey of Hourly Earnings (ASHE).⁸ The mean wages have then be uprated by 19.8% to account for non-wage costs of labour.⁹ This is described in further detail in the relevant section below.

Monetised and non-monetised costs and benefits of Option 1

Costs to Business

49. Costs to business arise from:
 - a. The need to update the terminology on SAPs for containers constructed on or after 1st July 2014;
 - b. The need to conspicuously mark containers with limited racking and stacking capabilities;
 - c. An additional test for containers operating with one-door removed;
 - d. The provisions in Annex III and new operational guidance;
 - e. The need to respond to an audit every five years and to refresh details every 10 years;
 - f. Familiarisation costs

A. Updating the terminology on SAPs

50. Updating the regulations in line with the CSC would require all containers, the construction of which was completed on or after 1st July 2014, to have a different SAP to that currently specified in the Regulations. The main changes in the SAP would be changes to the terminology, for example, updating units so that they are SI units. The full list of proposed changes to the SAP is provided in **Annex A: Changes to the Regulations required by CSC**, The cost from this change can be subdivided as follows:
 - Costs to operators who need to replace the SAPs on those containers manufactured between 1st July 2014 and April 2017 that have not already been brought in line with the convention
 - Costs to manufacturers from having to discard obsolete SAPs

Number of containers that would require the new version of the SAP

⁷ The exchange rate used was obtained from the Bank of England daily spot rate tables. The average was taken for the 2015 calendar year.

⁸ The 2015 provisional data was used, available on the ONS website

⁹ This is based on data on labour costs available from Eurostat (<http://ec.europa.eu/eurostat/web/labour-market/labour-costs/main-tables>)

51. To calculate the costs of this change we need to estimate the number of containers that would be affected by the change.
52. The first consultation stage IA estimated that the number of containers produced in GB between 1st July 2014 and 30th September 2016 was between 48,000 and 129,000, with a best estimate of around 85,000 units.¹⁰
53. Feedback from consultation was that this was an overestimate. One respondent, a company that tests containers, said that no more than 4,000 containers have been manufactured in GB between 1st July 2014 and 1st January 2016, adding that the manufacture of containers in GB 'has all but finished' and that the majority of containers now manufactured in the UK are specialised or bespoke units. Assuming a smooth distribution, this is equivalent to 222 containers per month, or just over 7,300 containers between July 2014 and April 2017 (a period of 33 months).
54. We adopted this revised assumption in the second consultation stage IA, and have maintained it for this final stage IA. We acknowledge that there is a large discrepancy between this figure and previous figures quoted. However, we feel it is reasonable to adopt the lower figure because of the following reasons:
 - a. The original estimate was arrived at following successive iterations based on data on the global manufacture of containers which, given they were estimates for the global size of the industry, would have had wide confidence intervals. Whereas, the figure used in this IA is based on a number provided by a container-testing facility that would rely on that information for business purposes;
 - b. The allocation of 1.5% to 3.2% of the global number manufactured to GB was based on an estimate of the percentage of the world fleet owned and managed by UK based companies. Whilst this was a suitable proxy when little other evidence was available, there is no evidence to suggest that the proportion of the global fleet owned by GB companies is equivalent to the proportion manufactured. Firstly, operating logistics companies, and manufacturing containers are two separate economic activities that require a different set of skills and resources. Secondly, data on global manufacturing indicates that 90% of containers are manufactured in China (Rodrige, 2013). This supports the theory of comparative advantage.¹¹
55. Not all the 7,300 containers manufactured in GB between July 2014 and April 2017 would require new SAPs once the regulations come into force in April 2017. This is because we expect that a large proportion of the industry is already compliant, as explained in paragraph 42. The first consultation stage IA assumed that 75% of the industry would already be compliant. This estimate was based on interviews with industry and HSE expert knowledge. We tested this assumption in consultation. Out of the four respondents who could answer, two agreed with the assumption. However, two respondents disagreed as they thought that 75% is an underestimate of the levels of compliance. In fact, one of these respondents stated that 100% of the manufacturers would already be compliant.
56. To reflect the responses at the first consultation we have revised the compliance rate, and assume that between 75% and 100% of manufacturers would already be compliant. Assuming that all manufacturers produce an equal number of containers, we could therefore assume that only 0% to 25% of the 7,300 containers manufactured between July 2014 and April 2017 would require a new SAP. We therefore estimate that between around 0 and 1,800 containers, with a best estimate of around 920 containers would require a new SAP.
57. The implied assumptions are that all containers manufactured in the UK are manufactured for UK operators or owners. Additionally, we also assume that all containers manufactured outside the UK are compliant, so if UK operators purchased those containers they would not need to change their SAPs. This is considered a reasonable assumption as the changes are based on an international convention. Three of the experts interviewed told us that they understand Chinese manufacturers to

¹⁰ This estimate was based on the amount of containers manufactured globally, per annum. This figure was obtained from 'The Geography of Transport Systems' by J P Rodrige (2013). We estimated that between 1.5% and 3.2% of these containers would have been manufactured in the UK, which was based on the percentage of the world fleet owned and managed by UK based companies (from a 2015 study by Oxera available at <http://www.oxera.com/Latest-Thinking/Publications/Reports/2015/On-behalf-of-the-Department-for-Transport,-Oxera-e.aspx>)

¹¹ Rodrige (2013) discusses why 90% of containers are manufactured in China. The two main reasons are that steel is readily available, and that containers can leave China stocked with goods ready for export, reducing the transport cost for that container and thus the unit cost of the container. China therefore has the comparative advantage in container manufacture. Manufacture that occurs elsewhere may be focused on specialised or bespoke units, as in the UK.

be compliant, and, as stated in paragraph 54, China accounts for around 90% of the manufacture of containers in the world.

Costs to operators

58. We assume that all manufacturers would become compliant when the new Regulations would be implemented in April 2017; therefore, all containers manufactured from this date would be in line with the proposed changes in the Regulations. Thus, operators would have to replace the SAP on every container that had been manufactured between July 2014 and April 2017, and had an obsolete SAP. This may be an unrealistic assumption. It is possible that some operators will begin to make the changes to their SAPs before April 2017, in expectation of the new Regulations (and in accordance with the Convention but in contravention of the current Regulations).
59. As discussed in paragraph 56, we estimate that between around 0 and 1,800 containers would require the change, with a best estimate of around 920.
60. We assume that container operators would seek to minimise the costs of this change. They would therefore not locate and bring in all containers to repair facilities to enact the changes to the SAPs on the 1st April 2017. Instead, they would make the changes when the container was next due for examination under the ACEP scheme, i.e. 30 months after first use. The transitional costs from this change would therefore be staggered over three calendar years.
61. We estimate that,
 - a. In 2017 changes would be made to between around 0 and 500 containers, with a best estimate of around 250 containers;
 - b. In 2018 changes would be made to between around 0 and 667 containers, with a best estimate of around 333 containers, and;
 - c. In 2019 changes would be made to between 0 and 667 containers, with a best estimate of 333 containers.
62. According to interviews it would take between 15 minutes and 90 minutes, with a best estimate of 53 minutes, to change one container's SAP. We tested this assumption at consultation and, out of eight who could answer, all agreed. Therefore our original assumption provides a likely estimate of the time it takes to change one container's SAP.
63. Additionally, each individual plate would cost between £7 and £10 with a best estimate of £8.50. We also tested this assumption at consultation. One respondent disagreed saying that the cost is likely to be higher than we estimated due to many data plates being combined with the CSC plates as a single plate, thus having a higher cost. However, they did not provide an estimate of how much more it would cost and the remaining four respondents who could answer agreed with our assumption. On the basis that responses were supportive overall, and that total costs to business are insensitive to the magnitude of costs per plate (as mentioned in the summary on page 2, the changes from this requirement only account for 1% of total costs), it would be disproportionate to collect further evidence, so we have maintained our original assumption.
64. The cost of time per hour was specified in paragraph 47, of between £6.54 and £19.63 with a best estimate of £13.08. We tested this assumption at consultation and out of six respondents who could answer, all agreed that this would be a likely estimate to the cost of time spent changing a SAP. Each container would therefore cost between around £9 and £39 to change, with a best estimate of around £20 (including both the costs of time and of the plate).
65. The **estimated present value cost** to operators over the appraisal period is between around £0 and £69,700, with a **best estimate of around £17,600**.

Costs to manufacturers

66. Manufacturers may need to discard obsolete SAPs, thereby forgoing the revenue they could have got by selling them. However, it is not proportionate to estimate this cost.
67. In paragraph 56, we explain that at least 75% of UK manufacturers are already complying with the international convention. It is likely that the other manufacturers are also anticipating this change. Besides, as discussed in paragraph 63, the price of one plate to the operator is around £8.50, thus the actual material cost of the plate to the manufacturer is likely to be lower. We do not expect that

manufacturers stock pile many plates, particularly given that they may only produce them when required, and also as the number of containers manufactured in the UK is low (see paragraph 53).

B. Conspicuous Marking of Containers with Limited Stacking or Racking Capacity

68. Changing the regulations in line with changes to the CSC would require container owners and operators to conspicuously mark all relevant containers (i.e. those constructed or commenced since entry into force of CSC, in 1984) with limited racking and stacking capacity, according to ISO 6346. In practice, container owners or operators would have to attach additional decals (numbers) to the containers.
69. Such containers have limited stacking or racking capacity by virtue of their design, rather than, for example, damage or wear and tear. As such, owners and operators would already be aware of which of their containers would require such marking.

Number of containers that would require conspicuous marking

70. Information from the interviews indicated that the containers that would fall in this category are 'swap bodies'¹² and some specialised containers (e.g. those used for offshore oil and gas operations).
71. From the interviews, we obtained an estimate of between 50,000 and 100,000 swap bodies in use in GB, with a best estimate of around 75,000. This assumption was tested at consultation. Out of four who could respond, all agreed, reflecting that it provides a likely estimate of the number of swap bodies in GB.
72. We were not able to obtain an estimate for specialised containers. We expect this number to be limited given the specified use of these containers (for example, in offshore operations or at nuclear decommissioning sites). During consultation, some stakeholders who deal with specialised containers responded but could not provide any figures.
73. Furthermore, the requirement to conspicuously mark the containers only applies to those containers with limited stacking or racking that have a safety approval plate and are used for international transport. Not all swap bodies or specialised containers would be used for this purpose, and therefore, given the wide estimate of swap bodies and the fact that not all these would need to be marked, we assume that specialised containers are captured in that range.
74. Given uncertainty in the industry around the interpretation of the requirement in the CSC we assume that there is a 0% prior compliance in this area. This is because, persons interviewed reflected that companies had not yet conspicuously marked containers with limited stacking or racking because they were uncertain about whether it applied to all relevant containers manufactured since 1984 or since the change came into force (2016). This is an example of where the revised regulations would provide increased certainty in the sector around interpretation of the Convention.

Costs to operators

75. We assume that container operators would seek to minimise the costs of this change. They would therefore not locate and bring in all swap bodies and specialised containers to repair facilities to attach the decals the very day the regulations are implemented in April 2017. Instead, they would make the changes when the container was next due for examination under the ACEP scheme, i.e. 30 months after first use. The transitional costs from this change would therefore be staggered over three calendar years. We adopted this assumption following conversations with specialists within HSE.¹³
76. Operators would have to attach decals to each container, at the material cost of around £5 per container. This cost of £5 was tested at consultation, where out of three who could respond, all agreed that it is the likely material cost of decals. Facilities staff would require between 60 and 90 minutes per container to attach the decals according to interviews. This was confirmed through consultation where out of six who could answer, all agreed with it being a likely time that it would take. As well as the time to place and attach decals to both the sides and the front door of the

¹² Swap bodies are vehicle bodies that are not permanently fixed to the carrying vehicle. They are similar to containers and are locked to the carrying vehicles in the same way using twist locks. At the loading bays, the swap bodies can be stored standing on their own legs. They are suitable for use for multimodal transport by road and rail and have grappler pockets which allow them to be moved using gantry cranes.

¹³ This assumption differs from the one adopted in the original consultation IA, and has been updated based on internal discussions.

container, which we understand to be quite labour-intensive, this estimated time per container includes some period to move from container to container to do the work as they may be distributed throughout a large area within a dock or other storage/ maintenance area.

77. This time would be at the cost of between £6.54 and £19.63 per hour, with a best estimate of £13.08 per hour, as explained in paragraph 47. This was tested in consultation where out of four who could respond, all agreed that this is a likely cost of time. There is therefore a total cost per container, including both the costs of time and of the decals themselves, of between £11.54 and £34.44, with a best estimate of £21.35.
78. We estimate that,
- a. In 2017 changes would be made to between around 15,000 and 30,000 containers, with a best estimate of around 22,500 containers;
 - b. In 2018 changes would be made to between around 20,000 and 40,000 containers, with a best estimate of around 30,000 containers, and;
 - c. In 2019 changes would be made to between 15,000 and 30,000 containers, with a best estimate of 22,500 containers.
79. The **estimated present value cost** to operators over the appraisal period is between around £560,000 and £3.3 million, with a **best estimate of around £1.5 million**

C. Testing Containers operating with one door removed

80. Changing the regulations in line with changes to the CSC would mean that containers operating with one door removed would require additional safety tests, following which the SAP should be marked with the allowable stacking load for 'one-door-off' operation, and with the transverse racking test force for one-door-off operation.
81. Container operators choose to operate containers with one-door removed when shipping goods that release moisture, for example, fruit and vegetables. The interviews revealed that this is not common practice in GB.
82. The tests per container are likely to cost in the region of £1,000.¹⁴ The marking of the SAP plate would require a cost similar to that described in paragraph 63.
83. However, based on the responses to the interviews, we do not think any containers operated by GB companies would require the tests over the appraisal period. We tested this assumption during consultation. Out of six respondents that could answer, five agreed that no additional tests would be carried out because of this requirement. One of the respondents who agreed is a container testing facility. The remaining respondent did not support the assertion that containers are not operated with one door removed in GB; however, they did not provide evidence to suggest that additional tests would be carried out. We therefore **estimate that there will be no additional costs to business** from this change.

D. Provisions arising from Annex III

84. Annex III of the CSC provides more detail about control measures that should be exercised where containers are identified as having specific deficiencies or deformities that may be observed in structurally sensitive components (including for example the top and bottom rails or the corner posts). Control measures might include an immediate out of service determination, advice to the owner or a restriction on use. Similar determinations exist under the existing ACEP scheme where containers found to be defective during planned maintenance examinations can be taken out of service for repair. We know that in GB there are existing arrangements at ports to deal with damaged containers.
85. As explained in paragraph 12, HSE will introduce new operational guidance so that authorised officers appointed by HSE can make appropriate assessments. Proposed revisions to the other HSE

¹⁴ This figure was obtained from a GB container testing company.

guidance will ensure that the CSC requirements are met in a proportionate manner given the risks presented.

86. As there are already existing arrangements in ports to deal with damaged containers, and as the industry already operates at high levels of safety because of the incentives inherent to the industry to run operations to time and cost (see paragraph 41), we estimate that there would be **minimal additional costs for business** which are not proportionate to quantify. We did not test this assumption during public consultation in January 2016; however, during the second consultation with industry, all three respondents agreed with the cost estimates in the IA.

E. Audits and Reviews

87. Under the changes to CSC Annex 1, ACEP programmes will have to be audited at least every five years to evaluate that programmes are being followed, and must be reviewed every 10 years to ensure continued viability.
88. HSE's approach to the audits will be proportionate to the risks. HSE will contact by email all the ACEP registered companies in GB (currently 101) every five years. The companies would have to respond to the questions in the email and be able to demonstrate compliance.
89. We estimate that it would take companies between 30 and 60 minutes to respond to the email. The email will be asking for information that the company already has to hand and we expect that no time would be spent in seeking additional information.
90. It may be the case that HSE's request for information triggers an audit of the companies' ACEP programmes; as companies may need to carry out an audit to respond to the request for information. However, some companies may already carry out such an audit or check of their schemes to ensure they meet the requirements of the convention and that their programmes are safe. Thus, there may be further costs to business from this change than described below, but these costs may not apply to all companies. However, as all respondents to the second consultation agreed that the cost estimates in this IA are reasonable, we have decided that it is not proportionate to monetise the costs.
91. We assume that corporate managers or directors would provide this response in most instances. We obtained the cost of time for corporate managers and directors from ASHE, at £26.10 an hour and uprated it by 19.8% as discussed in paragraph 48. The full economic cost of time to complete this task is therefore £31.27 an hour.
92. 101 companies would have to respond to the email in 2021, and 2026. In each of these years, the audit would cost businesses between £1,600 and £3,200, with a best estimate of £2,400 (around £23 per business per audit).
93. Over the appraisal period, the **estimated present value cost** to operators from the audit is between around £2,500 and £5,000, with a **best estimate of around £3,800**.
94. To ensure continued viability of the scheme, companies would also have to respond to another email from HSE every 10 years. The purpose of which is to obtain updated company details, and to confirm that the company still runs an ACEP scheme. We assume that the number of companies remains constant (at 101) and that one-tenth of the companies would have to respond every year.
95. We also assume that their response would require between 30 and 60 minutes of a corporate manager's time, at the cost of £31.27 an hour, as described in paragraph 91.
96. Over the appraisal period, the **estimated present value cost** to operators from this review process is between around £1,400 and £2,700, with a best estimate of around £2,000.
97. Over the appraisal period, the **estimated present value cost** to operators from these two requirements is between £4,000 and £7,800, with a **best estimate of £5,800**.

F. Familiarisation

98. We assume that in order for manufacturers, testing companies, owners and operators, and appointed container approvers to understand the changes under Option 1, they would need to take

some time to become familiar with them, by reading the relevant HSE guidance, and updates through the trade press.

99. We estimate that 101 operators, five appointed companies, and 10 manufacturers and testing companies would have to familiarise with the changes, as mentioned in paragraphs 38 to 40.
100. Respondents to public consultation provided information on how their business would approach familiarisation. From the responses we conclude that:
 - a. For operation companies two managers or directors would need to spend 2 hours each familiarising with the changes in the regulations and guidance at a cost of time of £31.27 per hour¹⁵
 - b. For the appointed companies, two managers or directors would need to spend 2 hours each familiarising with the changes in the regulations and guidance at a cost of time of £31.27 per hour. Additionally, 98 quality assurance technicians, or surveyors, would also have to spend 2 hours each, at a cost of time of £16.65 per hour.¹⁶
 - c. For the testing and manufacturing companies, two managers or directors would need to spend 2 hours each familiarising with the changes in the regulations and guidance at a cost of time of £31.27 per hour. Additionally, one routine inspector of containers and one engineer, would also have to spend 2 hours each, at a cost of time of £14.00 per hour and £24.63 per hour respectively.¹⁷
101. Thus, the one-off cost to each Operation company is £125. The total cost to all 101 operation companies is around £13,000.
102. The one-off cost to each appointed company is £3,000. The total cost to all five appointed companies is around £17,000.
103. The one-off cost to each testing or manufacturing company is £200. The total cost to all 10 such companies is around £2,000.
104. **The total one-off cost** of familiarisation to business would therefore be around **£32,000**.

Costs to Government

105. Implementing the changes to the CSC would incur minimal additional costs on government.
106. There are no additional costs to government from the first three changes described above (changes to SAPs, conspicuous marking of containers, and testing of containers with one-door removed).
107. Under changes triggered by a new Annex III, it is estimated that no more than 36 regulatory inspectors in HSE will have additional duties as authorised officers. To meet these duties they would need to be familiar with the new operational guidance that HSE plans to introduce. To familiarise with the operational guidance these inspectors would spend around 1 hour of their time reading the guidance when it is first published. At the cost of time of £59.33 per hour per inspector, this leads to a **one-off cost to government of around £2,100**. The frequency or number of inspections at docks or ports would not change because of the changes in the Regulations, and therefore no additional costs would arise from inspections.
108. Staff in HSE would also spend some additional time on working on audits and reviews. We expect the additional time to be minimal, and it is not proportionate to estimate the additional costs that arise.

¹⁵ ASHE (2015, provisional) – Mean gross hourly wage for SOC 11 Corporate Managers and Directors (£26.10) uprated by 19.8% to account for non-wage costs

¹⁶ ASHE (2015, provisional) – Mean gross hourly wage for SOC 3115 Quality Assurance Technicians (£13.90) uprated by 19.8% to account for non-wage costs

¹⁷ ASHE (2015, provisional) – Mean gross hourly wage for SOC 8133 Routine inspectors and testers (£11.69), and SOC 212 Engineering Professionals (£20.56) uprated by 19.8% to account for non-wage costs

Benefits

109. Updating the Regulations would remove inconsistency with the implementation of the CSC. This is discussed in paragraph 74. It is not possible to quantify or monetise this benefit.

Health and safety impacts

110. By ensuring consistency between the Regulations and the CSC, the proposed changes would ensure greater consistency in the management of safety at work in the industry, as they would implement changes to a convention that were originally triggered by safety concerns on a global level.

Summary of costs to business

Table 1: Estimated present value monetised costs to society of Option 1

	Costs to Society (£ m)		
	Low	Best	High
Costs to Business			
A. Updating the terminology on SAPS	Nil	£0.02	£0.07
B. Conspicuous marking of containers	£0.56	£1.55	£3.33
C. Testing containers with one-door removed	Nil	Nil	Nil
D. Provisions arising from Annex iii	Minimal	Minimal	Minimal
E. Audits and Reviews	£0.00	£0.01	£0.01
F. Familiarisation	£0.03	£0.03	£0.03
Total Costs to Business	£0.59	£1.60	£3.44
Costs to Government			
Annex iii - Inspector guidance	£0.002	£0.002	£0.002
Total Costs to Government	£0.002	£0.002	£0.002
Total Costs to Society	£0.60	£1.61	£3.44

Note: Present values over ten years. Totals may not sum due to rounding

Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

111. As explained in paragraph 31, we obtained evidence for the initial consultation stage IA by interviewing seven stakeholders. The interviews gave us a good overview of the impacts on the stakeholders involved, and given the small scope of changes, and the variety of interviews conducted, covering different aspects of the industry, we considered the level of analysis proportionate for a consultation stage IA.
112. We then accounted for evidence gaps during the public consultation in January 2016. We used the responses to modify our assumptions. The overall impression from stakeholders during the first public consultation was that we had overestimated the costs to business. The total costs to business from this change were estimated at around £1.9 million for the original consultation stage IA. In the second consultation stage IA, this had been revised to around £1.6 million following revisions to the assumptions. All three of the respondents who answered the question regarding costs in the final consultation in October 2016 agreed with the cost estimates. We do not consider it proportionate to undertake further research to revise this figure.
113. Combined, this evidence is deemed sufficient for a final stage IA.

Risks and assumptions

114. The evidence used for this IA has been through three rounds of stakeholder engagement and this has helped to reduce the uncertainty around the estimates. The second public consultation provided further opportunity to refine the analysis, with a particular focus on the uncertainties raised in Table 2. We added a column in this table to describe how we have dealt with each of the uncertainties described, based on responses to consultation in October 2016.
115. In the initial consultation stage IA there was uncertainty around the costs estimated. These uncertainties, and the methods recommended to refine the estimates, were described in detail, in the first four columns in Table 3. We added a column in this table to describe how we have dealt with each of the uncertainties described, based on responses to consultation in January 2016.
116. The nature of stakeholder engagement implies that the companies most engaged with the regulator, HSE, are those most inclined to keep up to date with changes in regulations, and in this case, with changes in the convention. This means that our data may be skewed towards those companies that are more likely to already be compliant with the CSC. We tried to account for this bias by contacting non-engaged stakeholders present on the HSE's ACEP list, which was also updated prior to public consultation so that we could better target those who are still operating an ACEP number in GB. However, we erred on the side of caution and assumed no prior compliance for some of the costs.

Table 2: Sources of uncertainty in the second consultation stage IA and how they have been addressed for this final stage IA

Source of uncertainty	Expected effect	Scale	Plans to refine	What we did after the 2nd consultation
Annex iii - This proposal has changed following public consultation. We assume that ports already have adequate arrangements to deal with damaged containers.	If our assumption is incorrect the costs to industry from this change can increase	This could have an impact on costs, though the scale is unknown	Assess during consultation with wider industry	All three of the respondents who answered the question regarding costs in the final consultation agreed that our cost estimates were about right. Given the extensive consultation, there is no need to make any further revisions.
Audit and Reviews – This proposal has changed since public consultation. We assume that companies will already have information to hand for the audit requirement.	If our assumptions are incorrect the costs to industry from this change can increase	This could have an impact on costs, though the scale is unknown	Assess during consultation with wider industry	All three of the respondents who answered the question regarding costs in the final consultation agreed that our cost estimates were about right. Given the extensive consultation, there is no need to make any further revisions.
All assumptions in Table 3 – a level of uncertainty remains despite adjusting these following public consultation in January 2016	See Table 3	See Table 3	These assumptions have been through 2 rounds of stakeholder engagement and are therefore relatively robust. However, we will still use the consultation document to ask a generic question on accuracy of the estimates in this impact assessment. Thus if any of the costs are over or underestimated this will be identified during consultation.	All three of the respondents who answered the question regarding costs in the final consultation agreed that our cost estimates were about right. Given the extensive consultation, there is no need to make any further revisions.

Table 3: Sources of uncertainty in the original consultation stage IA and how they have been addressed (the first four columns are identical to those in the original consultation stage IA)

Source of uncertainty	Expected effect	Scale	Plans to refine	What we did after the 1st consultation
General assumptions - Number of companies and type of companies affected (paragraph 38)	This will only have an effect on familiarisation costs, which have not been monetised at this stage	Small change in costs	Triangulate with other data sources	We reviewed HSE's internal database to confirm the number of companies operating with an ACEP number, and then carried out a Google search to assess numbers of other companies (e.g. manufacturers)
General assumptions - Change in the number of companies over time (paragraph 39)	Refining this assumption will have no impact as the number of companies is only used in estimating one-off costs of familiarisation	No change, unless new impacts emerge as part of consultation	No need to refine at this stage	We reviewed HSE's internal database to assess the number of companies leaving and joining the list.
General assumptions - The level of existing compliance (paragraphs 41 and 42)	Refining this assumption could drive costs down	This could have a large impact on all costs estimated	Refine compliance levels across the wider industry as part of consultation	We asked a question about this at consultation and revised assumptions accordingly
General assumptions - Cost of time (paragraph 45 to 48)	Refining this assumption could drive costs in either direction	However, the range is already wide and is not expected to vary by much	Assess during consultation with wider industry	We asked a question about this at consultation and have kept our original assumptions
SAP - Number of containers (paragraphs 51 to 57)	Refining this assumption could move costs in either direction	This could have a large impact on costs	Assess during consultation with wider industry	We asked a question about this at consultation and revised assumptions accordingly
SAP – Costs of discarding out-of-date SAPs (paragraph 66 to 67)	Any costs for manufacturers to discard old stock have not yet been estimated	The stock itself would be a sunk cost, but this could lead to a small increase in associated costs	Explore with manufacturers during consultation	We have provided an assessment about why it would be disproportionate to estimate this cost
SAP - Time spent on attaching a new SAP (paragraph 62)	Refining this assumption could move costs in either direction	We are fairly confident of the time range used, so expect a small change in costs	Assess during consultation with wider industry	We asked a question about this at consultation and have kept our original assumptions

SAP - The material cost of a SAP (paragraph 63)	Refining this assumption could move costs in either direction	We are fairly confident of the estimate used, so expect a small change in costs	Assess during consultation with wider industry	We asked a question about this at consultation and have kept our original assumptions
Racking - Number of containers (paragraph to 71)	Refining this assumption could move costs in either direction	This could have a large impact on costs	Assess during consultation with wider industry	We asked a question about this at consultation and have kept our original assumptions
Racking - Time spent on attaching additional decals (paragraph 76)	Refining this assumption could move costs in either direction	We are fairly confident of the time range used, so expect a small change in costs	Assess during consultation with wider industry	We asked a question about this at consultation and have kept our original assumptions
Racking -The material cost of decals (paragraph 76)	Refining this assumption could move costs in either direction	We are fairly confident of the estimate used, so expect a small change in costs	Assess during consultation with wider industry	We asked a question about this at consultation and have kept our original assumptions
Racking – Locating relevant containers (paragraph 75)	There could be administrative costs to locate containers	If estimated, this could lead to a small increase in costs	Explore with operators during consultation	We clarified the policy approach within HSE and confirmed that no additional costs would have to be incurred
Assumption that one-door off operation is currently not performed by GB companies (paragraph 83)	If one-door operation is performed by GB companies this could drive costs up	Small effect on costs	Assess during consultation with wider industry	We asked a question about this at consultation and have kept our original assumptions
Uncertainty round who will familiarise, how long it would take, and at what cost of time (paragraph 98)	Obtaining this information would allow us to estimate costs	Small effect on overall costs	Assess during consultation with wider industry	We asked a question about this at consultation which allowed us to provide estimates for familiarisation

Direct costs and benefits to business calculations (following OI3O methodology)

115. All business costs described in this impact assessment are direct costs that accrue to business.

116. The EANDCB in 2014 prices is £0.2 million.

Wider impacts

117. Wider impacts have been considered and no impacts have been identified for;

- a. Statutory Equality Duties;
- b. Human Rights;
- c. Justice System;
- d. Rural Proofing;
- e. Social Impacts;
- f. Competition; and
- g. Sustainable development.

Small business impacts

118. There is no small business exemption given the safety implications of not complying with the Regulations, which are not proportionate to the number of employees. In addition, the requirements of the Convention, and so of the Regulations, apply to all containers irrespective of the size of the company producing or operating them and thus there would not be a legal basis on which to enact an exemption of this kind.

Environmental impacts

119. Any increased safety of containers could lead to fewer collapsed stacks on board freight containers, which in turn, could therefore reduce the likelihood of negative impacts on marine environments. This cannot be quantified.

120. Although containers would have to be brought in for service to implement some of the changes, under the baseline container operators would have brought them in regardless so as to review them under the ACEP scheme. Therefore, there are no additional environmental impacts (e.g. carbon emissions due to transport of containers) from the requirements.

Summary and preferred option with description of implementation plan

121. As UK has ratified the CSC the preferred option is Option 1, i.e. to update the Regulations, in accordance with the law of treaties articulated by the Vienna Convention.

122. The **present value costs to business** from Option 1 are estimated to lie between around £0.59 million and £3.44 million, with a **best estimate of around £1.60 million**. As the proposed changes enact an international convention and do not go beyond the legal minimum, these costs are out of scope of One In-Three Out.

Post Implementation Review (PIR) Plan

1. **Review status:** Please classify with an 'x' and provide any explanations below.

<input checked="" type="checkbox"/> Sunset	<input type="checkbox"/> Other review	<input type="checkbox"/> Political	<input type="checkbox"/> Other	<input type="checkbox"/> No plan to
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2. **Expected review date** (month and year, xx/xx):

0	4	/	2	2
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Rationale for PIR approach:

Describe the rationale for the evidence that will be sought and the level of resources that will be used to collect it.

- **Will the level of evidence and resourcing be low, medium or high? (See Guidance for Conducting PIRs)**

Low. The policy changes are low in impact and low in risk. Prior compliance is also expected to be high in some cases.

- **What forms of monitoring data will be collected?**

Given the low level of evidence required for the review, no monitoring data will be collected specifically for this review. However, HSE will look to integrate feedback received from stakeholders to add to the conclusions of the review.

- **What evaluation approaches will be used? (e.g. impact, process, economic)**

A light touch economic evaluation will be pursued. HSE will use normal channels of consultation to establish whether the regulation has broadly met its objectives and to monitor any unintended consequences

- **How will stakeholder views be collected? (e.g. feedback mechanisms, consultations, research)**

There will be limited stakeholder consultation. Operators will need to respond to an audit (as per paragraph 88) in 2021. We therefore propose to attach questions to that audit. We expect that around 15 stakeholders would not be captured by the audit, so these will be contacted for a light-touch consultation, for example via telephone interviews.

Annex A: Changes to the Regulations required by CSC, Annex 1: Regulations for testing, inspection, approval and maintenance of containers

Both resolutions MSC 310 (88) and MSC 355 (92) amend Annex 1 CSC. A number of amendments are made to the information that the safety approval plate is required to contain (in the Appendix to Annex 1). This means that the wording in paragraph 1(d) of the Schedule will need to be amended. GLD have prepared the following, which shows (in purple) the changes to the wording in paragraph 1(d) that would be required:

- (d) contain the following information in at least the English or French language—
- (i) line 1—the country of approval and approval reference,
 - (ii) line 2—the month and year of manufacture,
 - (iii) line 3—the manufacturer's identification number in respect of the container, or in the case of containers for which that number is unknown, the number allotted by the Administration,
 - (iv) line 4—the maximum **operating** gross ~~weight~~ mass in kilograms and pounds,
 - (v) line 5—the allowable stacking ~~weight~~ **load** for 1.8g in kilograms and pounds (that is to say, the designed maximum superimposed static stacking weight),
 - (vi) line 6—the transverse racking test ~~load~~ **force** value in ~~kilograms and pounds~~ **newtons**,
 - (vii) line 7—the ~~end wall strength value as a proportion of the maximum permissible payload, which shall not be entered unless the side walls are designed to withstand a load of less or more than 0.4 times the maximum permissible payload.~~ **End-wall strength to be indicated on plate only if end-walls are designed to withstand a force of less or greater than 0.4 times the gravitational force by maximum permissible payload,**
 - (viii) line 8—the ~~side wall strength value as a proportion of the maximum permissible payload, which shall not be entered unless the side walls are designed to withstand a load less or more than 0.6 times the maximum permissible payload.~~ **Side-wall strength to be indicated on plate only if the side-walls are designed to withstand a force of less or greater than 0.6 times the gravitational force by maximum permissible payload,**
 - (ix) line 9—on and after 1st January 1987 (if the approved examination scheme or programme so requires)—
 - (a) a legend indicating that the container is subject to a continuous examination programme, or
 - (b) the date (expressed in month and year only) before which the container shall next be thoroughly examined.
- Lines 7 and 8 may be used for the above purposes (a) and (b) if they are not required to contain other information,
- (x) **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 LOAD ONE DOOR OFF FOR 1.8 g (... kg ... lbs). This marking shall be displayed immediately near the stacking test value (see line 5),**
 - (xi) **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: TRANSVERSE RACKING TEST FORCE (... newtons). This marking shall be displayed immediately near the racking test value (see line 6).**