Changes with initial and ongoing costs: component costs (Figure 6)

WBC3 section	Description of policy	Scope of change	Vessels in scope	Annual growth	Components per vessel	Replacement frequency	Cost per component (central)	Total costs (central, ten years)
11.1.2	Bilge pumps required to have a strum box	Vessels >6m in length	1,877	1.6%	1	Every 10 years	£33.27	£73,465
11.1.3	Bilge pumps required to have a non-return valve	Vessels >6m in length	1,877	1.6%	1	Every 10 years	£14.51	£32,028
14.4.5	Lifejacket cannisters to be carried	Area 0-2	795	1.9%	11	1 every 3 years	£25.16	£192,549
15.2.7	Annual check of gas appliances	Closed vessels	1,803	1.6%	1	Every 1 year	£78.33	£1,432,975
15.6.3.2	CO alarm must be audible everywhere	Closed vessels	1,803	1.6%	1	Every 6 years	£22.30	£78,925
16.3.1.5	Storage of extinguishers must be marked (component: sticker)	Closed vessels	1,803	1.6%	3	1 every 5 years	£1.49	£973
20.1.1	Vessels to carry two anchors (one additional)	Area 5-6	186	0.7%	1	Every 10 years	£375.60	£75,094
21.1.6	Vessels to provide sanitary bin	Closed vessels	1,803	1.6%	1	Every 10 years	£12.50	£26,511
22.2.6.2	Immersion suits required	Area 0-2	795	1.9%	11	1 every 10 years	£161.84	£941,970

42. The highest-costing individual change is 15.2.7, the new requirement for an annual check of gas appliances. This cost is likely to be an overestimate of the actual costs of the measure, because not every closed-top vessel will have gas appliances needing inspection. Therefore, this total represents a maximum bound on the total costs of change 15.2.7.

Changes with initial and ongoing costs: labour costs (Figure 7)

WBC3 section	Description of policy	Scope of change	Vessels in scope	Annual growth	Initial time per vessel	Recurring time per vessel	Labour cost (central)	Total costs (central, ten years)
15.8.1	Fire control plan required	All	1,993	1.6%	4 hours	0.5 hours per year	£27.00	£381,543
19.2.6	Compass deviations to be recorded	All	1,993	1.6%	1 hour	0.5 hours per year	£27.00	£288,505
31.2	Safety management system required	All	1,993	1.6%	8 hours	1 hour per year	£27.00	£763,087
31.3	Cyber-security policy for vessels	Closed vessels	1,803	1.6%	4 hours	0.5 hours per year	£27.00	£416,109

Changes with ongoing cost savings only (Figure 8)

WBC3 section	Description of policy	Scope of change	Vessels in scope	Components per vessel	Replacement frequency	Benefit per component (central)	Total benefits (central, ten years)
17.3.2	Spare aerial no longer required	Sail vessels	2	1	Every 5 years	£58.65	£200

Changes with no quantified impact (Figure 9)

WBC3 section	Description of policy	Reason for lack of quantification
6.2.1.1	All access ways to be weather tight	This is a technical change which is expected to have very little impact, because any hatch large enough for a person to pass through will be able to be made weathertight at negligible cost.
6.2.4.2	Accessways to open from both sides	This is a technical change which is expected to have very little impact, because any hatch large enough for a person to pass through is likely large enough to open from both sides already.
6.2.4.3	CAs to approve hatchway hinges	This is a minor clarificatory change to the wording around the administrative process and is not expected to lead to changes in practice.
6.2.5.1.2	Open hatchways must face backward	This could theoretically necessitate minor changes to practice (procedures needing hatchways to be left open will need to be done from the back of the vessel). Any impacts would be hard to monetise and as impacts are expected to be very small it is not proportionate to attempt quantification.
6.3.9/ 6.3.7	Vessels no longer need blanks for windows	Blanks vary very considerably in size and cost, and the minimum cost for a blank likely to be approved by authorities is thought to be low. Note this change is reducing requirements for replacing blanks, so any impacts will be a cost saving to vessels in scope.
8.10.6	Vessels must have a suitable receptacle to prevent fuel spillage draining overboard during fuel handling	This change clarifies wording and is expected to be met with a drip tray, but it is possible that a nozzle gaiter or rag could be used (very cheap components). It is thought that the vast majority of vessels will already be doing this (and vessels with fixed tanks are designed with drip trays), so the change is unlikely to affect many vessels.
9.2.4	Vessels operating at night must have lighting	This is a minor clarificatory change to strengthen wording. Certifying authorities already check for suitable lighting so this change is not expected to necessitate any changes to practice.
9.3.1.4	Back-up batteries required to be charged prior to departure	These provisions are aimed at autonomous vessels, which do not presently exist for commercial use. (As carrying a fully charged back-up battery is best practice, formalising the requirement is not likely to be seen as an additional burden.)
9.5.2	Hazard area lighting to be on multiple circuits	Certifying authorities already check lighting in hazard areas, so this is a clarificatory change unlikely to necessitate any change in practice.
9.5.4	No unnecessary cables in hazard area	Certifying authorities already check wiring in hazard areas, so this is a clarificatory change unlikely to necessitate any change in practice.
10.2.4	Emergency steering system required	This change clarifies existing limits on operating area for vessels with insufficient emergency steering. Because the limits already exist (and breaches are thought to be very infrequent), the clarification is not expected to lead to any significant additional restrictions on practice. In theory there could be indirect impacts if the restrictions limit commercial activities, but such impacts are expected to be very minor.
13.3.2	Freeboard mark exemptions taken to CAs	This is a minor clarificatory change to the wording around the administrative process and is not expected to lead to changes in practice.
13.4.2	Flexibility for vessels if freeboard mark is n/a	This situation is very rare (estimated fewer than one vessel per year). Costing the requirement to demonstrate safety is hard because various methods may be accepted by CAs, so quantification is disproportionate.

14.4.3	Two spare lifejackets must be carried	Two is already the minimum requirement. Previously, there was an additional requirement to carry one spare jacket for every ten passengers was required, if that number exceeded two. However, no vessels in scope carry more than 20 people, so that requirement was not used. Therefore, there is effectively no change (theoretically, any change would be a saving for large vessels, but no vessels are large enough to be affected).
15.2.4	Increased minimum distance between combustible substances	This may require the replacement or repositioning of materials without an appropriate surface spread of flame rating, although different vessels will be affected differently. Data does not allow an estimate of how many vessels would be affected, or how much each adjustment would cost.
15.3.5	Ductwork venting on gas appliances	It is not expected that any vessels will need to change to comply because any vessels not already doing what the section requires would be venting harmful gases into the interior of the vessel, which poses safety risks that would be picked up in inspections.
16.1.2.1	Provisions for vessels with fire ports	This section is added for clarity and states that fire ports must be able to dispense extinguishers without a person entering the space. As this is standard functionality of a fire port, no requirements are imposed.
16.1.2.2	Fire port standards	Fire ports are optional so not all vessels are in scope. The new section describes basic functions of a fire port, and it is very unlikely that any vessels will fail to meet the standards. Therefore, costs will be negligible.
16.3.1.4	Extinguishers to be readily available	This could theoretically require change in practice (moving extinguishers or buying additional ones). Any impacts would be very small and hard to quantify, so monetisation is not proportionate.
16.3.1.6	Non-marine extinguishers to be protected from water damage	Protecting non-marine extinguishers to retain the functionality of their trigger mechanisms could, for example, include being covered with a plastic bag. This is thought to be a small change affecting a small number of vessels, but data does not allow an estimate of impacts.
16.3.2	CO2 extinguishers not to exceed 2kg	2kg is the standard extinguisher size so the number of vessels affected is likely to be small, but there is no data to estimate vessel numbers. Extinguishers are thought to be around £22, so the overall impact is not likely to be significant. No reduction in fire safety is anticipated.
20.3.1	CAs to approve requests for alternative anchor designs	This minor change clarifies the wording around the administrative process and is not expected to lead to any change in practice. (This would apply only when usual anchor designs cannot be used, which is rare.)
21A2.2	Vessels may carry water treatment facilities	This is a permissive change which does not require any vessels to do anything, therefore its impact is no worse than zero net cost.
24.2.3	Creating a new class of tender	Although the change does allow certain requirements to be lifted for small tenders (therefore creating a potential cost saving to vessels in scope), there are no tenders that the regulations would apply to and it is not possible to estimate how many might be in scope in the future.

43. As shown in Figure 9, the majority of the non-quantified measures are expected to impose zero or negligible costs. There are a few cases where there may be some costs to some businesses; for example, it is possible that a few vessels will need to buy new components to comply with section 8.10.6 (drip trays), 15.3.5 (ductwork venting) and 16.3.2 (fire extinguishers). All these costs are expected to be small and applying to just a small number of vessels, so quantification would not be proportionate. In addition, these costs are offset by a small number of the measures would be expected to show a small benefit if quantified (e.g. 6.3.9/6.3.7, 13.4.2 and 24.2.3).

44. Because the total quantified costs, which cover the vast majority of regulations expected to impose costs, are far below the de minimis threshold, there is no risk that the unmonetised costs could bring the total near the threshold. More detail is available in section 3.3, which demonstrates that costs would have to be more than *six times* greater than the quantified estimated in order to exceed the threshold.

3.2.3 Results and summary of total quantified costs

Total future costs, by change (Figure 10)

WBC3 reference	Future costs, low (£)	Future costs, central (£)	Future costs, high (£)
15.2.7	1,162,506	1,432,975	1,532,808
22.2.6.2	429,401	941,970	1,806,196
31.2	464,821	763,087	1,130,565
31.3	287,880	416,109	538,762
15.8.1	232,410	381,543	565,282
19.8.1.4	223,085	375,935	740,901
19.2.6	202,025	288,505	368,063
17.6.1	108,962	266,742	507,977
14.4.5	97,947	192,549	365,817
15.6.3.2	51,984	78,925	107,275
20.1.1	73,922	75,094	75,844
11.1.2	43,805	73,465	110,970
11.1.3	23,757	32,028	35,680
21.1.6	10,604	26,511	42,417
16.4.1.5	2,989	10,391	23,382
16.3.1.5	825	973	1,147
28.2.5	184	597	1,237
17.3.2	-166	-200	-203
All other changes	0	0	0
Familiarisation	249,741	355,698	408,982
Inspections	32,069	32,069	32,069
TOTAL undiscounted	**3,698,750**	**5,744,965**	**8,395,169**
TOTAL discounted	**3,220,318**	**5,049,790**	**7,446,783**

45. Figure 10 shows total costs are estimated to be £5.74m in the central scenario, with a range from £3.70m to £8.40m. This demonstrates that the costs of the measures are very highly likely to fall below the de minimis threshold (see section 3.3 on Business Impact Target calculations for detail of the equivalent annual net direct cost to business (EANDCB) and net present value (NPV)).

Total retrospective costs (Figure 11)

	Low (£)	Central (£)	High (£)
Retrospective costs	3,081,455	3,106,448	2,526,540
GRAND TOTAL (undiscounted)	6,780,205	8,851,413	10,921,710

46. Figure 11 show total retrospective costs are estimated to be £3.11m in the central scenario.

47. The “Grand Total” line sums retrospective costs with the undiscounted total costs from Figure 10 to generate an overall figure for the impact of the changes. This is £8.85m in the central scenario.

3.2.4 Benefits (not quantified)

48. Monetisation of benefits has not been considered proportionate because benefits are largely non-tangible and difficult to quantify.

49. WBC2 contained unclear, inconsistent and incomplete information. Amending the Code to clarify the text will reduce the varying standards being applied onboard workboats and during certification, reducing safety risks for vessels and crew onboard. Bringing as many vessels as possible onto a

common code of certification will also improve clarity and consistency across the sector and reduce administrative burdens for the Maritime Coastguard Agency (MCA) and certifying authorities (CAs).

50. Adding sections on new and emerging technologies will help prepare the Code for the future and will smooth the introduction of technologies which will likely bring benefits to the sector. Because it is very difficult to predict the trajectory of these technologies, it is not possible to quantify this benefit.

51. The updated Code will also have safety benefits. It is difficult to monetise these areas, and with many small changes, it is difficult to assign benefits (reduced incidents may not be attributable to particular measures). However, the package of changes means vessels should become safer to crew and passengers and reduce pollution. Examples of interventions which improve safety include sections 6.2 (better use of hatchways), 9.2.4 (appropriate lighting), 9.5 (safer electrics in hazard areas), 15.2.7 (checks of gas appliances), 15.6.3.2/16.4.1.5 (improved alarm systems), 15.8.1 (fire control plans), 16.3.1 (fire extinguishers to be marked and readily available), and 31.2 (safety management systems). In addition, section 8.10.6 (preventing fuel spills) will benefit the environment.

52. As discussed above, some changes will create savings for firms, including 6.3.9/6.3.7 (reduced blanks requirements), 13.4.2 (administrative flexibility) and 24.2.3 (reduced requirements for small tenders). In addition, very small monetised cost saving for section 17.3.2 (reduced aerial requirements) has been included in the cost totals above.

3.3 Business Impact Target calculations

53. All future costs imposed are considered to be in scope of the Business Impact Target (BIT).All costs are costs to business, as owners and operators of workboats will need to spend to comply with the updated regulations[7]. All costs are direct because they are the immediate result of the regulatory changes. None of the changes result directly from international obligations.

54. Retrospective costs are included in the BIT score (and EANDCB) on the basis that previous recommendations were complied with due to the implied prospect of future regulation mandating compliance. There is very little evidence around this, so the assumption has been made that no vessels would have complied had recommendations not been included in past Codes. This brings past action to comply in scope of the BIT, in line with RPC guidance on "constructed counterfactuals"[8].

55. Although they are included in the BIT score and EANDCB, retrospective costs are excluded from the NPV because they are sunk costs and will not be incurred in the future as a result of the policy.

56. Figure 13 summarises the costs of the policy in the three scenarios. The "cost calculations" lines are the same as the costs shown in section 3.2.3 above (future plus retrospective costs in 2023 prices). The "BIT reporting" lines convert totals into 2019 prices, with discounting starting from 2020, in line with Better Regulation guidance and the Government's Impact Assessment calculator.

57. The EANDCB is £0.80m in the central scenario, with a range from £0.62m to £0.97m, **far below the de minimis threshold** of £5m even in the high scenario. Costs would need to be more than six times greater than the central quantified estimated to exceed the threshold. This justifies the conclusion that a de minimis assessment provides a suitable level of analysis and scrutiny for this policy.

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[7] Therefore, the "net present value (NPV)" is both the net present social value (NPSV) and the business net present value (business NPV).

[8] See RPC guidance on counterfactuals here. In particular, including retrospective costs in the BIT score is based on the assumption that vessels complied with previous recommendations on the understanding such recommendations may become legal requirements in the future (see p12-13 of the guidance). As some measures may have been complied with voluntarily, this is a conservative assumption, meaning the calculations demonstrate an EANDCB well below the threshold even when taking the maximal approach to retrospective costs.

Figure 12: Business Impact Target calculations

	Low (£)	Central (£)	High (£)
Cost calculations			
Undiscounted total	6,780,205	8,851,413	10,921,710
Discounted total	6,301,773	8,156,238	9,973,323
Annualised total (2023 prices, discounted from 2023)	732,110	947,553	1,158,653
BIT reporting			
NPV (2019 prices, discounted from 2020)	-2,707,308	-4,245,338	-6,260,479
EANDCB (2019 prices, discounted from 2020)	615,482	796,604	974,075
BIT score (assuming a five year Parliament)	3,077,409	3,983,019	4,870,374

3.4 Risks and unintended consequences

58. The risk of non-compliance is expected to be low. The Workboat Code is already established, and workboats need to meet these standards to be certified. Compliance inspections take place every five years, but because most of the changes involve installing or changing component that are part of the vessel, the risk of failure to comply in intervening years is considered very low (and mitigated further by intermediate checks which would pick up any obvious problems).

59. For many measures, many vessels are already thought to be compliant as they were previously recommendations in Workboat Code Edition 2 or considered to be best practice.

60. Certifying Authorities (CAs) will enforce these measures during the inspections which come on a five-year cycle. For existing vessels, the changes will come into place during the first five years of the change in guidance. New vessels will be expected to comply before they are certified. All workboats will have to be compliant with the changes by the end of the fifth year after the policy comes into effect.

61. The data we hold on vessels is of poor quality in sections, meaning we have had to make assumptions in our analysis, and increasing scope for some unforeseen impact of the changes. The risk of costs being much higher than anticipated has been mitigated by making fairly conservative assumptions, and the fact that calculated costs are far below the de minimis threshold means it is very highly unlikely they could exceed the threshold.

3.5 Wider impacts

62. Two wider impact tests have been conducted: small and micro business assessment (SAMBA) and competition assessment. We have not identified any additional wider impacts requiring assessment.

3.5.1 Small and Micro Business Assessment (SAMBA)

63. The majority of companies in the UK workboat industry are micro, small and medium sized businesses. There is no reliable or up-to-date data available to exactly estimate of the number of businesses in the workboat industry, but at the time of the Impact Assessment for Workboat Code 2 (December 2018)[9], the National Workboat Association (NWA) estimated that the three representative bodies represent around 85% SMEs. That IA also reported that the Small Vessel Database (SVD) showed that, where ownership details and information are available, 80% of companies owning a workboat own just one vessel, suggesting that these are likely to be smaller businesses.

64. Therefore, the updates to the Workboat Code are expected to affect small and micro businesses. However, exemptions or voluntary application is not appropriate. The major policy objectives are to provide clarity and consistency in certification, which requires all workboats being in scope. In addition

[9] This impact assessment is available online at the following link.

to this, some changes are related to safety standards, which should apply to all crew and passengers regardless of the size of the company owning the vessel they are travelling on.

65. Because the large majority of the changes are low impact, with the total costs of the package falling well below the de minimis threshold, this is not considered an excessive burden. Several of the monetised changes apply only to vessels in larger operating areas or with enclosed spaces, meaning the changes are expected to generally impose fewer requirements on smaller vessels.

66. The package of changes has been developed in consultation with industry, with broad agreement for the proposals (see paragraph 11 above). This means the changes are unlikely to be controversial.

3.5.2 Competition Assessment

67. As the workboat sector is dominated by small and micro businesses (see evidence above), the market is believed to competitive. The very small costs imposed means we do not expect this to change, or for there to be any decrease in supply. To the extent that having multiple codes available for vessels to certify under creates inconsistency, the proposal to migrate all vessels to the new Workboat Code 3 will improve competition by ensuring a “level playing field” for regulatory requirements.

68. Having workboats that are safer will allow workboats to compete for international contracts. This may help UK registered workboats to be more competitive.

4 Post implementation review

Review status:

	Sunset clause		Other review clause		Political commitment		Other reason	X	No plan to review

Rationale for PIR approach:

Certifying authorities will continue to manage the inspection of the workboats and so be able to report on levels of noncompliance and any key issues workboats face as a result of these new requirements.

An evaluation of the specific measures is considered disproportionate, but Workboat Code 3 as a whole will remain under review and further revisions are expected to be made in future. That process will include consulting industry on current requirements and taking action to mitigate any issues.