Consultation Document –

Proposed introduction of new BSS Requirements for carbon monoxide (CO) alarms on boats with accommodation spaces

August 2018

Section 1 – Foreword and introduction

The Boat Safety Scheme (BSS) is running a public consultation on proposals that have the full support of its stakeholder and management committees.

It is proposed to introduce a mandatory new BSS Requirement for suitable carbon monoxide (CO) alarms in good condition and in suitable locations on all classes of boat with accommodation spaces.

The changes affect all classes of BSS examination, private boats, boats used for hire and other non-private boat classes.

The BSS proposals are presented as both necessary and proportionate risk controls and your comments upon them are welcomed. The consultation is open until 16:30 on Friday 9 November 2018.

The BSS will also be taking the opportunity to seek the respondent's views on the future possibility of introducing similar checks concerning smoke alarms for private boats.

Section 2 – Background to the consultation

2.1 What is CO and why is avoiding CO poisoning essential?

CO is a highly poisonous gas that weighs about the same as air.

It is produced when carbon-based fuels used in engines and appliances, such as gas, LPG, coal, wood, paraffin, oil, petrol and diesel don't burn completely.

It can build-up on a boat with one, or a mix of these factors; faulty, badly maintained, or misused appliances; exhaust fumes from a boat's engine or generator; escaped flue gases from solid fuel stoves; shortage of oxygen - fuels need the right amount of air supply to burn completely.

It cannot be seen, smelt, tasted, or felt, (it's known as the silent killer) and only suitable CO alarms can warn of its presence reliably.

In humans and pets, CO replaces the oxygen in the bloodstream, preventing essential supplies to body tissues, hearts, brains and other vital organs. At high concentrations, CO can kill without warning, sometimes in only minutes.

Where victims survive severe CO poisoning, they can be left with long-term brain damage such as poorer concentration, or causing mood swings, etc.

Exposure to CO over a longer period, can also result in serious effects such as memory problems and difficulty concentrating.

Some people will be affected much more quickly, including: pregnant women and unborn babies; babies and young children; older people; people with respiratory problems or heart conditions.

Other people may be at higher risk too, such as those who have been doing something active and are breathing more rapidly and deeply and have a greater need for oxygen. People who have been drinking heavily may also miss early signs of problems because the symptoms may be masked.

More on CO its causes, its effects and how to prevent it can be found at www.boatsafetyscheme.org/co

2.2 Why is a mandatory new BSS Requirement is being considered?

In the past two years new information about the potential risk to boaters presented by CO has brought the need for action into focus. From the recent evidence collected, people and their pets aboard their own boats are at medium risk of CO poisoning from sources of CO generated outside of the boat by others e.g. the use of engines and appliances on adjacent boats.

The recently identified potential risk cannot be controlled by boat owners themselves. The risk is enhanced by the fact that CO is a hidden danger.

The circumstances fall within the remit of the Scheme to have in place measures that protect boat owners from the activity of others. In these circumstances a mandatory new BSS Requirement is warranted, as opposed to an 'Advice check'.

A detailed assessment of the risks was carried out through the BSS support committees and the supporting detailed risk review report is provided separately (Risk Review and Assessment Document) **[Link].** The risk arguments are summarised below.

2.3 Risk arguments in favour of the proposal

2.3.1 CO generated outside of the boat can cause harm

In summer 2016 two people died aboard the sports cruiser Love For Lydia. The Marine Accident Investigation Branch (MAIB) invested the circumstances, including running field tests. It published its findings in May 2017. The boat had a large petrol engine and when this was run with boat moored, exhaust fumes were drawn into the boat through a partially open cockpit cover into the cabin space and killed the occupants. No alarm was fitted. https://www.gov.uk/maib-reports/carbon-monoxide-poisoning-on-board-the-motor-cruiser-love-for-lydia-with-the-loss-of-2-lives

MAIB tests measured CO at the helm position at over 2000 parts per million (ppm) within 39 seconds and similar levels were recorded in the forepeak cabin within 8 minutes

The MAIB found that at the same time CO measurements of 2000 ppm+ were being recorded at the helm of Love For Lydia, outside of a boat moored astern, measurements of 450 ppm+ were recorded and during Test 12, 140 ppm was recorded at the helm of the boat moored astern.

2.3.2 Evidence that portable generator exhaust emissions need to be considered

In February 2018, the Building Research Establishment (BRE) was commissioned to do a limited trial study on the effects of combustion emissions, especially CO, on other third parties nearby, such as other adjacent boat users.

When a generator was run 0.5m away and with the cabin doors open, a mean concentration of CO of 19.4 ppm over a 45-minute test period was recorded with maximum reading of 31.4ppm

BRE made interim recommendations that petrol generators should always be used downwind of the boat, but not upwind of any adjacent boat unless there is a minimum separation of 10 metres. Comparable USA Government advice and warnings are already in place concerning generator use near the home.

2.3.3 Further example of CO generated outside of the boat can enter another boat

During the Christmas period in 2017 the BSS undertook a monitoring exercise on a boat moored in East London. The boat owner reported repeated CO alarm activations with the source allegedly identified as a nearby boat running a solid fuel stove.

The BSS monitored for CO using Lascar Data Loggers and the results for the afternoon of Friday 22 December are of interest. The Lascar Data Logger B4 situated very near to the ventilator at the stern doors started to record significant readings from 14:00 and continued in the 40ppm range for three hours before rising suddenly through the 50ppm threshold and up to 64ppm at 17:16, before the battery was depleted.

It is certain that the occupants were not onboard the monitored vessel at this time. The only explanation for the readings is the ingress of CO from the neighbouring boat operating its solid fuel stove and likely burning poor quality fuel.

2.3.4 First responders can be at risk from CO on boats:

In November 2016 the owner of a cruiser Vasquez collapsed and died from CO poisoning. He was running the boat's petrol engine in-gear, trying to warm it up prior to cruising. Exhaust gasses were leaking into the boat from a faulty hose connection. No alarm was fitted.

Two fellow boat club members, one an off-duty firefighter, made a rescue attempt. They carried out CPR for 15-20 minutes. But the firefighter was starting to feel sick and hot, then more light-headed and faint and lost consciousness. Attending paramedics first assumed the firefighter was the casualty.

The two friends who had administered CPR were given oxygen and were then taken to hospital for further tests and treatment. When first assessed the firefighter had carboxyhaemoglobin levels of 20%, while the other friend had a reading of 9.5%; both indicating CO poisoning. The owner was taken to hospital unconscious and never recovered. See www.gov.uk/maib-reports/carbon-monoxide-poisoning-on-motor-cruiser-vasquez-with-loss-of-1-life

2.3.5 Increasing health professional concerns about lower-level CO exposure:

A report in October 2017 from COMed (a medical expertise subgroup of the All Party Parliamentary CO Group) describes the significance of the risk "…**high levels of CO exposure can be fatal within seconds, whilst low-level, repeated exposure may cause irreversible long-term damage, the extent of which is only beginning to be understood…"**

The World Health Organisation guidelines for indoor exposure to CO are just less than 88 parts per million (ppm) over a 15-minute period or no more than 30 ppm in a 60-minute duration.

This month will see Health & Safety Executive (HSE) new air quality limits for workplace exposures, including: 20 ppm for an 8-hour period and 100ppm in a 15-minute time weighted average short-term exposure.

2.3.6 CO above allowable workplace exposure limits may exist on boats:

In November 2017 a small number of BSS Examiners were given four-gas analysers to be used with each examination to monitor the environment presented to all Examiners to help assess whether it presents any exposure to gas hazards during site visits. So far 27 readings of CO at 20+ ppm have been recorded – exceeding the HSE 8-hour workplace exposure threshold and three recordings above 100 ppm – exceeding the 15-minute HSE limit.

These results were out of just under 1900 examinations. If this is extrapolated to all BSS examinations, 20,800 last year, we can expect around that around 300 boats will be found with concentrations of 20+ ppm and around 33 boats will have levels above 100 ppm each year.

These are levels that should concern boaters, but the Scheme also must consider the safety of others, not least BSS Examiners who may visit the craft.

3 Summary impact assessment

3.1 Intended objectives and benefits of introducing a new BSS Requirement

There are two intended objectives in the introduction of the proposed new BSS requirements.

Firstly, it is intended to help prevent CO poisoning of people and their pets aboard boats from sources of CO generated by the activity of others e.g. the use of engines and appliances on adjacent boats.

Secondly, the enhanced protection will also help protect first-responders/emergency services, BSS Examiners, waterways staff or other workers on, or in the immediate vicinity of the boat.

The key additional recognised benefits beyond the regulatory target are **a)** the anticipated effectiveness of CO alarms in preventing death or injury to boat owners placed at risk in their own boats from running the boat's engines or appliances **and b)** to make craft occupants aware of moderate levels of CO which can be a long-term threat to health if left undetected.

Recognised benefit a) is a significant in the context that to introduce a mandatory BSS Requirement that addresses the self-harm risk could only be achieved if the BSS were to be re-constituted.

In addition, we also believe it will help prevent CO poisoning fatalities and injuries to tenants, and others new to living aboard boats, who may be more exposed to this risk, perhaps through their lack of boat dwelling experience and lack of control over the maintenance and replacement of appliances.

The effectiveness is estimated at 90%. This figure takes account of the evidence that no CO fatalities are known to have occurred on a boat on which a working CO alarm was fitted and concerning the high level of confidence about the quality and robustness meaning that CO alarms will be effective at detecting CO throughout their working life.

Based on the previous 20-year history of 30 CO boat fatalities, the overall effect is estimated that the next 20 years could see a reduction down to one boat CO fatality every ten years. This aspiration depends on the level of effectiveness of associated additional support measures and partnership awareness-raising initiatives.

3.2 Potential unintended consequences of introducing the new proposals

The best protection for boaters is to prevent CO from occurring through the proper installation of appliances, good and regular maintenance and running them according to the instructions from the supplier. CO alarms do not align with this strategy but do of course provide a robust method of detecting the hidden danger, as a backstop protection.

Boaters also need to be able to recognise early signs of CO occurring, such as sooty stains on flues or floppy yellow flames on burners. It is also critical that boat crews know the symptoms of CO poisoning and how to react once they are identified. It follows that CO alarms can't be considered a primary form of protection, but as above they can act as a call to action.

However, a possible unintended consequence of the introduction of CO alarms could be that the presence of alarms may cause a small minority of boaters to relax primary safety standards, as referred to above, and by inference, increase the risk of dangerous conditions occurring.

Additional factors that may lead to incidents occurring, include:

- incidents arising distant from the location of a working alarm;
- boat crew/occupants' behavioural factors such as a failure to act upon an alarm activation;
- incapacity through drugs or alcohol;
- failure to replace an alarm at life expiry or battery expiry.

An even smaller minority of boaters, may not use alarms appropriately, i.e. i) may seek only to use the alarm activation to engender appliance maintenance or as a warning of the need to change the way the appliances is being used, i.e. move the generator.

3.3 What alternatives to introducing mandatory new BSS Requirements were considered?

Introduce BSS 'Advice Checks' – considered inappropriate because the circumstances fall within the criteria for mandatory compliance, i.e. the protection of boat owners from the activity of others. Note that one Advice check to protect only the boat occupant(s) is proposed acting as a recommendation for a CO alarm to be placed in the same space as any installed solid fuel stove.

Do nothing – considered but rejected as the recently collected evidence that went through the BSS Risk Review and Assessment process is compelling and the BSS and Navigation Authorities would be exposed if no regard was paid to the evidence, and if the BSS disregarded the advice from its stakeholders who fully support the proposals.

There are currently no reports of CO fatalities or serious injury from sources of CO generated outside of the boat by others, however the BSS is not compelled to wait for a third-party tragedy to indicate a need to act. The risk presented to boat occupants from outside sources of CO is considered to be a medium potential risk (fatalities possible but unlikely within 15 years). Introducing CO alarms combined with an effective influencing-behaviour campaign reduces risk to as low as reasonably practicable.

Rely only upon safety awareness campaigns - Reliance upon co-ordinated campaigns aimed at raising awareness is not considered a fully effective method to mitigate the risk. The level of effectiveness of current campaigning remains unknown. To be effective and persistent, a campaign co-ordinator is essential, but the funding is not forthcoming and neither is funding for research to achieve data to accurately assess numbers of boaters most at risk.

With CO alarm ownership estimated at +60%, complete coverage is unlikely to be achieved, even with the concerted co-ordinated campaigning, the law of decreasing returns will apply where increasing effort and money will be less and less effective in raising alarm uptake.

To introduce mandatory new BSS Requirements – is the proportionate risk control and has full stakeholder support and is the sole recommendation presented.

3.4 The cost impact of introducing new BSS Requirements

The following assumptions are presented:

a. 70,000 boats are subject to the BSS and 38% do not have a CO alarm = 26,600 boats affected.

b. Each alarm costs £13.51 inc. VAT, being the minimum price of BS EN 50291-2 CO alarm at today's market prices. (A list of alarm models provided by the alarm industry association, CoGDEM, as tested to BS EN 50291-2 and suitable for boat use, is published here https://www.boatsafetyscheme.org/media/294453/boat-co-alarms-may-18.pdf)

c. One alarm is generally sufficient to meet the BSS minimum safety requirement. However, two or more may be required if separate accommodation spaces are separated by doors and are more than 10m from an alarm.

d. Each alarm will have a life of seven years dependent upon battery health. Devices generally have a seven or ten-year life and a very few have five-year life.

e. No installation costs are taken into account because, as an optional securing method, alarms can be secured in position using strong sticky pads.

f. The estimated 62% of boats with existing CO alarms will mostly have alarms that will be compliant with the proposed new BSS requirement.

g. The proposed new BSS Requirements will follow most of the criteria of the existing hire boat requirements for CO alarms where solid fuel stoves are installed, namely:

- Carbon monoxide alarms must be marked as being certified by an accredited certification body to EN 50291 or equivalent.
- Carbon monoxide alarms must be wall-mounted at high level at least 150mm below the ceiling height.
- Alarms must be provided with a test function button.

The following costs are estimated:

a) Additional costs to boat owners/operators - £354,046 (26,600 boats x £13.51 each boat), this could equate to an outlay of £1.93 per year over seven years.

Focussing on hire operators specifically, it is estimated that there are currently around 2400 boats registered for weekly hire and 840 day-boats[1]. It is estimated that CO alarm uptake is already high at around 75-80%. For example, the two biggest inland hire boat companies are known to have successfully introduced CO alarms throughout their fleet. The boats affected will be all of the weekly hire boats yet to have installed a CO alarm and a small proportion of the day boats, estimated at 700.

£9,457 (700 boats x £13.51 each boat), this could equate to an outlay of £1.93 per year over seven years.

Additional costs to the owners of other classes of non-private boats subject to the BSS. These are the workboats, hotel boats, floating cafes, etc, estimated at around 700 boats. It is estimated that CO alarm uptake will likely be already high at around the levels of private boat CO alarm ownership. £3,594 (266 x £13.51 each boat), this could equate to an outlay of £1.93 per year over seven years.

b) Additional BSS Examiner charges for their boat owners/operator customers? – it is possible that examiners will charge more for the added time taken to carry out the additional checks. Examiners operate in a free market regarding their charges.

[1] Based upon Hirer Safety Review data - Nov-13.pdf

c) Additional costs to the BSS – no additional costs, only normal operating costs in support of consultation, implementation, promotion and review.

d) Additional costs to BSS Examiners – it is intended that training to the proposed new checks will take place during the compulsory two-day LPG update course prior to implementation. As such there is regarded to be no additional cost to BSS Examiners.

e) Additional cost to navigation authorities - Direct cost to the Navigation Authorities may arise from any need to further consult, amend of registration, licensing or other conditions and any information to reflect the change in requirements.

3.5 The importance of CO awareness raising and other BSS activities

The Scheme is keen to stress that its proposal to introduce a BSS requirement for CO alarms on all classes of boat with accommodation spaces should be seen in a wider context of other work the BSS will be doing, often with the assistance of strategic partners.

Clear guidance and safety awareness information remains paramount. In the event of a successful consultation, initial messages will emphasise:

- the recommended types of CO alarm, and
- where to fit them will be promoted, and
- the importance of pushing the test-button, and
- the actions to take if the alarm activates.

We will continue to support partnership initiatives aimed at influencing behaviour concerning the selection, maintenance and use of appliances.

The focus will be CO safety awareness efforts targeted towards those boaters considered to be at heighted risk, i.e. 'hard to reach' vulnerable live-aboard boaters and those that are boaters new to boating who may or may not fall into the vulnerable category but who may not have a full understanding of the risks.

The BSS will promote through BSI committees, a policy for CO alarms to feature within a relevant clause of the Recreational Craft Regulations supporting standards.

We will continue to pursue further studies and research into inherent levels of CO encountered in the boating environment. This intention has been built into the BSS plans for this and the next three financial years. We are confident that we can and will learn more to the benefit of boater and boat operators.

Our aim that we will share as we learn and hence drive safety forward through a constant improvement process.

Section 4 Your chance to comment on the proposed new BSS checks

4.1 Is the argument for the introduction of new BSS requirements supportable?

Despite some of the identified drawbacks in the preceding section, there is some anecdotal evidence from other sectors that when a person becomes knowledgeable enough about CO risks to take an action to fit a CO alarm, he/she becomes more knowledgeable about the need for (and benefits of) regular appliance servicing and is more likely to have it done.

It is considered that mandating CO alarms may not be as good as achieving 90%+ voluntary uptake, but it will address those boaters in the categories described above and who have an attitude to safety that will be very difficult to otherwise influence.

Similarly, those people who use an alarm as a primary protection device, will have at least some level of protection, albeit limited to the last level and possibly more regularly.

However, the proposals support the view that there are compelling reasons for introducing a mandatory new BSS Requirements for suitable CO alarms in good condition and in suitable locations on all classes of boat with accommodation spaces. We would like you to express your view.

Do you support the proposal to introduce a requirement for CO alarms on boats with accommodation spaces – see Question Q1

4.2 Do you agree that the Checks A-D are supportable? (Q2-6)

The proposed checks are as set out below.

Check A covers the provision of alarms in suitable numbers in accommodation spaces

From the BSS Examination Checking Procedures Glossary. **Accommodation space: - Space surrounded by permanent boat structure in which there is provision for any of the following activities: sleeping, cooking, eating, washing/toilet, navigation, steering. Spaces intended exclusively for storage, open cockpits with or without canvas enclosures and engine rooms are not included.**

Check B - this is an advice check - it covers boats with solid fuel appliance specifically. Because of known CO risk linked to solid fuel stoves (they can have 100 times the concentration of CO that can be found on LPG hob burners). The BSS will expect and hope that a CO alarm will be found in the same space as a solid fuel stove. If an alarm is found elsewhere on the boat, advice about the risk will be given, but it will not be a barrier to certification

Check C – this requirement to give assurance that any CO alarm is likely to work, being placed in an appropriate location, being of a certified quality, and capable of being tested.

Check D – this concerns the requirement that any CO alarm should be in good and working condition, showing no signs of damage, including to its mounting arrangements, being within any visible expiry dates and passing the test using the test button. The test proves the sensor is fully active; the analogue and digital circuitry and software are operational; the battery is healthy; and finally, the alarm LEDs, display and audible sounder are functioning correctly.

Please read the following proposed checks and let us know do you support them – see the Questions Q2-Q6

A	**If the vessel has an accommodation space, are the correct number of carbon monoxide alarms provided?**	**Requirement**
Identify the presence of an accommodation space. If present, check for the presence and location of carbon monoxide alarm(s).	All boats having an accommodation space must be provided with at least one carbon monoxide alarm. Where the accommodation space is sub-divided by cabins with door(s), a CO alarm must be located within 10m of each cabin door.	
Applicability – where the accommodation space is not sub-divided by cabins with door(s) only one carbon monoxide alarm is required irrespective of the size of the space. Guidance for owners – follow the carbon monoxide alarm manufacturer's placement and other instructions.		

B	**If the vessel has overnight accommodation and an installed solid fuel stove, is a carbon monoxide alarm provided within the same space as the solid fuel stove?**	**Advice***

If the vessel has overnight accommodation and one or more solid fuel stove appliances are installed, check for the presence of a carbon monoxide alarm within the same space(s) as the stove(s).	All boats having overnight accommodation and an installed solid fuel stove appliance(s) must be provided with a carbon monoxide alarm within the same space(s) as the solid fuel stove(s). Within each overnight accommodation space separated from the space containing the solid fuel stove by a door(s), and being greater than 10m distance from the carbon monoxide alarm, an additional carbon monoxide alarm must be provided, located in the "breathing zone", i.e. near to a bed head.
Applicability – the provision of a carbon monoxide alarm(s) in support of the requirement at Check B does not have to be in addition to the provision at Check A Depending on configuration of the accommodation spaces (see 2nd requirement at Check A) one correctly located alarm might be all that is required to comply with Checks A and B. Guidance for owners – follow the manufacturer's placement instructions. Ideally, where a solid fuel stove appliance is installed, a CO alarm should be located between 1m and 3m (on plan view) from any stove and not directly above sources of heat or steam.	

*NOTE: BSS Advice Checks for private boats are, linked to the protection of the crew aboard the boat being examined. Advice checks represent best-safety practice and meeting them all is highly recommended. On the BSS Examiner's 'report', comments marked with an 'A' may be material to the vessel's insurance and the boat owner's duties under the law of occupier's liability.

C	**Are carbon monoxide alarms correctly mounted and of a suitable type?**	**Requirement**
Where one or more carbon monoxide alarms have been found to be necessary at Checks A and/or B, check the mounting position of each required alarm. Check the markings on each required carbon monoxide alarm. Identify the test function button.		Carbon monoxide alarms must be wall-mounted at high level, but must be at least 150mm below the ceiling height. Carbon monoxide alarms must be marked as being certified by an accredited third-party certification body to EN 50291 or equivalent. Carbon monoxide alarms must be provided with a test function button.
Applicability – the main accredited third-party certification bodies in the UK are BSI and LPCB. For the following makes of carbon monoxide alarm accredited third-party certification can be assumed – Ei Electronics, Fire Hawk Alarms, Honeywell, Kidde, First Alert, Fire Angel, BRK and Dicon. For other makes, removing the alarm from its base may be necessary to view labels and approval marking on the base. Permission for removal should be sought from the owner/operator. Documentary evidence of accredited third-party certification is acceptable. Applicability – CO alarms may be mounted outside of the range specified in the requirement (…. At high level, but must be at least 150mm below the ceiling height) where any such alternative location is permitted by the alarm manufacturer and where appropriate supporting documentary evidence is available. In cases where alarms are mounted outside of the range specified in the requirement, examiners are recommended to make a note of the alarm make and model and the supporting documentation in their field notes. Guidance for owners – carbon monoxide alarms marked to the 'EN 50291-2' are the best choice for boats. They have been tested to meet the more onerous conditions found in recreational vehicles, including boats.		

NOTE: for the purposes of the consultation a list of alarm models provided by the alarm industry association, CoGDEM, as tested to BS EN 50291-2 and suitable for boat use, is published here www.boatsafetyscheme.org/media/294453/boat-co-alarms-may-18.pdf)

D	Are carbon monoxide alarms in good condition?	Requirement
Where one or more carbon monoxide alarms have been found to be necessary at Checks A and/or B, visually check the condition of each required carbon monoxide alarm. Operate the test function button on each alarm.	Carbon monoxide alarms must be in good general condition, and must not show signs of any of the following indicators of poor condition: • damage or deterioration to the body of the alarm or the fixing mechanism; • having passed any manufacturer's express replacement date; • failing the test function test.	
Applicability – examiners are not required to opening up alarms to check for internal damage or deterioration or for manufacturer's express replacement dates.		

4.3 Do you support the future possibility of introducing similar checks concerning smoke alarms for private boats

We know anecdotally that many boaters believe the BSS should introduce requirements for smoke alarms. Comments in other consultations and on social media indicate a strength of feeling on this subject.

To pre-empt potential comments on smoke alarms, the Scheme is taking the opportunity to ask your views about introducing a check for suitable working smoke alarms.

This question coincides with the updating of a Fire Industry Association list of smoke alarms suitable for installing in a boat.

In the past 10 years 12 people have died in boat fires. It is likely that over half of these people died because of smoke and fumes.

As such it is likely that an earlier warning of fire starting may have lead to a different outcome.

The BSS continues to view escape from fire on private boats as the primary responsibility of the boat owner / skipper. However as with its check on emergency escape, it's role to influence and guide owners to install and maintain suitable working smoke alarms could be enhanced by introducing checks on private boats.

NOTE: for the purposes of the consultation a list of suitable smoke alarms is published here as a useful, but not necessarily exhaustive, reference www.boatsafetyscheme.org/media/273659/a4-d1-fact-file-smoke-alarms-in-boats-fia-final-jul18-r.pdf

Do you support the future possibility of similar checks concerning smoke alarms for private boats – see Question Q7

Section 5 – About this consultation

5.1 How is the consultation to be run?

We hope this consultation is of interest and well presented so that you can understand and give due consideration to the various issues, the risks and the benefits.

The consultation is open until 16:30 on Friday 9 November 2018. With the launch of the consultation on Friday 17 August this provides a 12-week period.

If you need further information, a 26-page Risk Review and Assessment Paper is available.

An Impact Assessment document summarises our appraisal of the potential impacts of a new BSS Requirement.

Both documents are available from links on the consultation web page
www.boatsafetyscheme.org/alarmconsulation2018

If you have trouble with the consultation form or a related query, please email us at
bss.enquiries@boatsafetyscheme.org

We will produce a summary of the views expressed and our response by Friday 21 December 2018. This will be published on our website www.boatsafetyscheme.org

A communications campaign will promote the final agreed changes in very early 2019.

The revised Boat Safety Scheme requirements are intended to come into effect from January 2019 and implemented as BSS checks on 1 April 2019 by which time, BSS examiners will have completed familiarisation training exercises.

Your opinions are valuable to us. Thank you for taking the time to read this document and respond.

5.2 Your opportunity to comment on this consultation.

Have we been clear? Have we given you the proper opportunity and adequate means to contribute your views? See Question Q8

Your views are invited on any unintended consequences concerning introducing a specific proposal or on the generality of these proposals.

Can you see any further unintended consequences concerning introducing the proposals beyond those already mentioned in this consultation? See Question Q9

5.3 About you and your responses.

When we publish the results of this consultation we would like to be able to refer to those organisations responding and possibly quote from the comments made. Providing answers to Questions 10 – 12 will provide detail that will help us analyse and handle your responses.

Please tell us your name and indicate your sector of interest (for example boat owner, hire boat operator, navigation authority, marine trader, BSS examiner, if other please state). Please let us know if you are responding as an individual or on behalf of a company, representative group or trade organisation. See Question 10

This will help people appreciate your response in context.

Are you happy for your name and organisation to be made public? See Question Q11

This will help people appreciate your response in context.

Considering your responses, do your responses/comments relate to any particular area of the inland waterways? It would be helpful if you would select one of the following geographic locations. See Question Q12

Your personal data will not be disclosed to third parties.

Individual responses will not be acknowledged unless specifically requested.

If you want the information that you provide to be treated as confidential, it would be helpful if you could explain to us why you regard the information you have provided as confidential.

5.4 Alternative means of submitting responses

The preferred method for responding is to use the website facility www.boatsafetyscheme.org/alarmconsulation2018

Alternatively, you can email comments BSS.enquiries@boatsafetyscheme.org

If you prefer to put your comments on paper, you can send them to:

BSS CO Alarm Consultation
Boat Safety Scheme,
First Floor North,
Station House,
500 Elder Gate,
Milton Keynes
MK9 1BB

If you have alternative access requirements for any element of the consultation process, please call or contact us by phone, email or through social media.

5.5 Further information

Should you have any questions about this consultation and how to respond, please contact the BSS Administrator at BSS.enquiries@boatsafetyscheme.org or call 0333 202 1000.

If you have any complaints or comments about the consultation process please direct them to: BSS.enquiries@boatsafetyscheme.org or write to the address above.

Section 6 – Question & Response Form

Q1 – Do you support the general concept of introducing a requirement for suitable working carbon monoxide (CO) alarm(s) because of the now known third-party risk?

Agree	
No	

Q2 – Do you agree that the Check A is supportable (If the vessel has an accommodation space, are the correct number of carbon monoxide alarms provided?)

Agree	
Agree, but suggest amending	
No	

Q3 – Do you agree that the Advice Check B is supportable (If the vessel has overnight accommodation and an installed solid fuel stove, is a carbon monoxide alarm provided within the same space as the solid fuel stove?)

Agree	
Agree, but suggest amending	
No	

Q4 – Do you agree that the Check C is supportable (Are carbon monoxide alarms correctly mounted and of a suitable type?)

Agree	
Agree, but suggest amending	
No	

Q5 – Do you agree that the Check D is supportable (Are carbon monoxide alarms in good condition?)

Agree	
Agree, but suggest amending	
No	

Q6 – If you have amends to suggest or any comments on the proposed format of the checks please use this box to make your comments.

Q7 – Do you support the future possibility of introducing similar checks concerning smoke alarms for private boats?

Agree	
No	

Q8 – Do you have any comments to make about this consultation? Have we been clear? Have we given you the proper opportunity and adequate means to contribute your views?

Please use this box to make your comments.

Q9 - Can you see any further unintended consequences concerning introducing the proposals beyond those already mentioned in this consultation?

No further unintended consequences	
Yes I can see further unintended consequences	
Don't know	
Comment	

Q10 - Please tell us your name and indicate your sector of interest (for example boat owner, hire boat operator, navigation authority, marine trader, BSS examiner, if other please state). Please let us know if you are responding as an individual or on behalf of a company, representative group or trade organisation.

Your name	
Sector of interest	
Company name (if applicable)	

Q11. Are you happy for your name and organisation to be made public?

Agree	
No	
Comment	

Q12. Are you happy for your responses to be made public?

Agree	
No	
Comment	

Q13. In regard to your responses, do your responses/comments relate to any particular area of the inland waterways*? It would be helpful if you would select one of the following:

- ❑ All inland waters / general
- ❑ Avon Navigation Trust
- ❑ Basingstoke Canal Authority
- ❑ Bridgewater Canal Company Ltd
- ❑ Bristol Harbour
- ❑ Broads Authority
- ❑ Canal & River Trust
- ❑ Chelmer & Blackwater - Essex Waterways
- ❑ Conservators of the River Cam
- ❑ East Yorkshire Waterways & Humber
- ❑ Environment Agency
- ❑ Lake District National Parks
- ❑ Loch Lomond
- ❑ Middle Level Commissioners
- ❑ Port Of London PLA
- ❑ R. Wey - National Trust
- ❑ Scottish Canals
- ❑ Other (please specify) ……..

We may share the relevant results of the consultation with the specific navigation authority as appropriate