

<p>Title: Post Implementation Review of the Merchant Shipping (Boatmasters' Qualifications, Crew and Hours of Work) Regulations 2015</p> <p>PIR No: DfTPIR0043</p> <p>Original IA/IPC No: N/A</p> <p>Lead department or agency: Maritime and Coastguard Agency</p> <p>Other departments or agencies: Department for Transport</p> <p>Contact for enquiries: boatmaster@mca.gov.uk</p>	Post Implementation Review
	Date: 08/03/2022
	Type of regulation: Domestic
	Type of review: Statutory
	Date measure came into force: 04/04/2015
	Recommendation: Amend
RPC Opinion: N/A	

1. What were the policy objectives of the measure?

The Merchant Shipping (Boatmasters' Qualifications, Crew and Hours of Work) Regulations 2015 ("the 2015 Regulations").¹

The Boatmaster Licence (BML) process is implemented by the Maritime and Coastguard Agency (MCA) and licences are mandatory for masters of certain vessels that operate on certain categorised bodies of water.

Prior to the implementation of the 2015 Regulations there were several disparate extant regulations that were found to inadequately address industry needs for appropriate risk-based qualifications and resulted in continued unresolved areas of conflict. The 2015 Regulations replaced the Merchant Shipping (Inland Waterway and Limited Coastal Operations) (Boatmasters' Qualifications and Hours of Work) Regulations 2006 and the Merchant Shipping (Local Passenger Vessels) (Crew) Regulations 2006. Insight into the operation of the 2006 Regulations was obtained from multiple surveys which were sent out in 2009 to the Passenger Boat Association (PBA) which distributed the survey to all passenger boat employers,² and during consultation when reshaping this regime for these regulations. These showed that under the 2006 Regulations, certain aspects of the qualifying requirements (national tidal licences required for use in local restricted areas) were disproportionate to the risks involved and, as much of the industry were small to medium enterprises (SMEs), many struggled to maintain financially viable businesses. This was due to the requirement for boatmasters operating local passenger vessels to obtain the Tier 1 Level 2 licence, a national licence, which allows them to operate across the UK. However, many boatmasters will only operate in specific local areas, making the national licence disproportionate to what is needed for many businesses. Additionally, the 2-year training period made it hard for employers to take on apprentices, resulting in a shortage of labour.

Government intervention was therefore judged to be necessary to address the areas of concern and to reduce the burden and costs to businesses operating in this market, with the following policy objectives:

- Introducing a restricted local tidal licence (Tier 2 Level 2).
- Extending the list of acceptable equivalent qualifications and training in lieu of a boatmaster's licence.
- Addressing safety issues not provided for in the existing regulations and amending and simplifying the 2006 Regulations for ease of public accessibility.

In brief, the 2015 Regulations aimed at consolidating and updating the previous boatmasters' licence regulations. The objective of the 2015 Regulations was to enable an industry, made up primarily of SMEs, to continue operating viable businesses and maintain the local areas they serve, including transport networks, tourism, services to other vessels and employment. Additionally, they aimed to impose greater safety measures and increase the training of relevant masters to address any shortfall in the previous regulations that may have resulted in unresolved areas of conflict. Details of the amendments can be found in **Annex 2**.

¹ Source: *The Merchant Shipping (Boatmasters' Qualifications, Crew and Hours of Work) Regulations 2015 Impact Assessment*, (<http://www.legislation.gov.uk/ukxi/2015/410/resources>).

² In 2009 the Passenger Boat Association (PBA) conducted a study of the UK passenger boat industry to determine the composition and size of the sector. The results are published in "The UK Passenger Boat Industry – What Value to the Economy, July 2009". As part of this study the PBA distributed a questionnaire to all passenger boat employers in the UK. Some 67 responses were received (which is an 18% response rate). Respondents were invited to comment on what they would like to see changed to allow their business to be more successful in the future. The PBA grouped the 131 additional comments into a number of themes; the most popular 'Relaxation of MCA Regulations' (19 comments); followed by 'Concise regulations from the MCA' (15 comments) and less mentioned 'Realistic approach by MCA about Boatmaster Licence' (3 comments).

2. What evidence has informed the PIR?

Due to the low costs and benefits put on industry through the 2015 Regulations implementation, it was deemed appropriate and proportionate to undertake a light touch Post Implementation Review (PIR). This decision was based on the conclusion in the 2015 Regulations' Impact Assessment (2015 IA) that the effects, in relation to cost and benefits, were noted to be a £5.62m cost saving to industry in total over the appraisal period (10yrs) with an annual saving of £0.62m putting it under the de minimis threshold set by the better regulation framework.³

Furthermore, as noted in the 2015 IA the affected industry is primarily made of SMEs. According to the MCA's UK Ship Register (on 1 August 2013) approximately three quarters of the inland waterway (vessel operating) industry consisted of owner/operators with less than a tenth of industry being non-SMEs. Despite attempts to calculate the same statistics for the period covered under the PIR and at present, the data was inaccessible. However, it is assumed that in relation to the affected industry's composition, these figures have not significantly altered.

Therefore, due to the small size of the affected industry as well as the limited amount of evidence available previously and to date, we have not gone out to consultation. To do so would have created an excessive burden on the affected industry and businesses to respond within the reduced timeframe and adequate responses would not have been guaranteed. This statement is reinforced by the fact only a small and limited amount feedback has been recorded in the five-year period since the Regulations implementation. Also, in regard to the limited evidence pool available, the potential comments received may have been limited to specific areas or non-national localised issues, and these responses could have already been circulated and received through the evidence sources utilised for this PIR.

The principle method used to gather information for this PIR was a targeted survey exercise of experienced MCA Staff, Technical Leads and Surveyors. This research method was used due to their knowledge of boatmasters across the country, the application of the regulations nationwide, the conducting of the relevant exams and their regular interactions with the affected masters', companies and industry in general. Alongside this method, we have evaluated the 2015 IA, considering all feedback and queries on the 2015 Regulations submitted to the MCA over the past five years.

Statistical data has been acquired from the UK Marine Offices, where oral exams under the 2015 Regulations are undertaken. These exams are necessary for the issuing or revalidation of a boatmaster licence as well as to issue masters with the relevant endorsements, Local Knowledge Endorsements (LKEs) or operation qualifications. Data has also been collected from the Registry of Seaman and Shipping (RSS), who process and deal with the majority of the boatmasters' applications. This allows a degree of analysis to be provided in comparison to the estimated values from the 2015 IA in areas such as the number of reported applications, revalidations, boatmaster's licence exemptions or affected boatmasters, and the Regulations' effects on these areas.

3. To what extent have the policy objectives been achieved?

From the evidence we have concluded that the 2015 Regulations are, to a great extent, having the desired effects and meeting their objectives/standards.

The 2015 Regulations have enabled:

- An enhanced and wider structure of BMLs to be used by masters. This has been visibly seen through the increased number in comparison to the estimated figures (Section 4 and annex 1 table 1).
- An increase in safety and contribution to a set of improved training requirements and assessment standards.
- As a result of enhanced training, safer inland waterways and qualified masters serving the transport networks & services. This is demonstrated by the BML oral exam statistics.
- The acceptance of a wider range of higher or equivalent certificates to aid the industry's and SMEs pool of resources.

It is hard to validate the success of certain changes brought about by the 2015 Regulations. For example, the simplifying and condensing of the regulations. At the time of the 2015 IA the format and contents were circulated to industry for comment and only minor recommendations, or no objections, were expressed. Therefore, it can be considered that this objective has been achieved.

However, certain unintended consequences and other issues have arisen as a result of the implementation of the 2015 Regulations. These are mentioned in section 5.

Due to the scope of this PIR and the issues experienced in terms of facts, available evidence base, time and the scope of the industry, we propose the next steps for the 2015 Regulations involve an external consultation and a comprehensive review. This would enable further evidence and feedback in regard to the Regulations in general and

³ Better regulation framework - <https://www.gov.uk/government/publications/better-regulation-framework>.

the issues mentioned below, and to any other changes that may be necessary to make to the 2015 Regulations fit for purpose.

Following the outcome of the comprehensive review, we anticipate an amendment of the 2015 Regulations will be necessary to ensure that the unintended effects are addressed and either resolved (for example in regards to the towing and pushing endorsements) or removed (such as the discrepancies between the Merchant Shipping Notice and the 2015 Regulations). This procedure would enable the 2015 Regulations to stay in place while improving their effectiveness and suitability to all concerned parties.

Sign-off for Post Implementation Review: Chief economist/Head of Analysis and Minister

I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the impact of the measure.

Signed: **Katy Ware**

Signed: [Click here to enter text.](#)



Date: 14/03/2022

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23:28, 21 Mar 2022

Further information sheet

4. What were the original assumptions?

The preferred option implemented a range of amendments to the existing 2006 Regulations with assumption and estimated costs. This included introducing a local specific tidal licence, widening the scope of recognised equivalent qualifications for BMLs, addressing safety issues that had been identified via separation of syllabi and requiring service times for high risk operations.

The 2015 IA identified two monetised costs; the requirement for boatmasters to have sufficient service time, and the MCA BML database overhaul.

The two monetised costs were estimated to cost around £318,890 in additional fees across both industry and the MCA. The amendments introduced service time requirements to revalidate certain specialist operation endorsements if boatmasters did not have sufficient service time and wished to continue undertaking a specific operation that is deemed higher risk. The cost to industry was calculated to be minimal at a total of £4,890 over ten years as this was likely to only affect new entrants to the industry. It was therefore not appropriate or possible to calculate the cost to industry at the time of this PIR, as this alteration was estimated to have such a limited impact in the 2015 IA.

The second cost, in relation to the £318,890, was the revision of the MCA's existing BML database to enable the recording of the proposed licences and amendments. This was estimated to cost a total of £314,000 over the ten-year appraisal period in which the database would be used, maintained or updated accordingly before being reviewed.

There were a number of non-monetised costs to be borne by industry including the separation of existing - and the introduction of new - specialist operation endorsements for boatmaster licences. These requirements were based on a safety case and were supported by industry at the time of implementation. As existing MCA approved company training continued to be accepted as evidence of meeting the required standard and that the majority of boatmasters hold local licences which did not require specific endorsements, and most endorsements being of minimal cost between £90 - £100 per endorsement according to the fees charged by training facilities in 2013; the cost to industry was calculated as likely be negligible and as such has not been investigated.

This was justified as existing MCA approved company training continued to be accepted as evidence of meeting the required standard. The majority of affected boatmasters also held local licences which did not require specific endorsements.

The key monetised benefits were to new and existing boatmasters and industry SMEs, with the introduction of a new licence which is quicker to obtain, and more appropriate and cost-effective for boatmasters' only wishing to operate on local tidal areas (T2L2). The 160 masters named on Vessel Exemptions at the time of the Regulation's implementation were assumed to experience a one-off benefit of not needing to obtain the T1L2 upon introduction of the proposed T2L2 licence, saving the difference in cost. It was estimated that the national T1L2 licence costs £13,300 to obtain with the T2L2 only costing £2,500. This is mainly down to the reduction of the length of training and experience needed from 2 years to 40 days, and the employment cost of working without this qualification with the associated reduction in pay this would have.

The expected uptake in the new licence was assumed to be 41 annually, with 410 over the appraisal period based on the number of Vessel Exemptions issued by the date of the 2015 IA, which presented risks of being inaccurate as this was based on the number of operators being added to the exemption list and may not capture the actual demand for the licence. This was accounted for in the 2015 Regulations.

This one-off benefit represented an estimated saving of £1.8m for those on the exemption list if all boatmasters were to apply for the licence after their exemption expires instead of leaving the industry, due to the difference in training and cost needed to obtain the national T1L2 which they would need in lieu of this new T2L2 licence existence. The number of new licences over the past five years was 393 new entrants under the new licence, compared to 205 from the original forecast by the time of review. This increase represents a larger benefit and cost saving which has been felt by industry.

The 2015 IA estimated that the benefit to boatmasters and the affected SMEs from this licence would be £3.9m (discounted). After five years we would expect a benefit of £2.1m.

The actual number of licences given out on an annual basis so far is much larger, with on average 79 new licences acquired annually by industry. There is uncertainty around this number as, out of the 393 new licences, it is not known how many of these were part of the 160 exempted which could result in double counting. When revising the benefits to industry, we have used sensitivity analysis to produce a range of costs to mitigate these uncertainties and risks around the number of entrants.

In our central scenario, the revised benefit to industry has been £2.8m with an annual uptake of 55 licences. This could range between £2.4 – 3.2m depending on the number of applicants per year. Over the 10-year appraisal period this represents a cost saving to industry in our central scenario of £4.8m compared to £3.9m from the original assumptions (discounted) in the 2015 IA, and could range between £4.4 – 5.9m (for more details please refer to Annex 1, revised costs)

Lastly, the scope of qualifications under the Regulations were extended, and masters who have undergone equivalent or superior training are no-longer required to retrain under the Regulations. This benefit was not monetised due to the difficulty in estimating the number of boatmasters that would have used these alternative qualifications in lieu of the BML requirements.

5. Were there any unintended consequences?

The 2015 Regulations have seen certain unintended consequences arise since their implementation. The Regulations enabled the appropriate vessel operators and individual boatmasters to obtain towing and pushing operations endorsements. However, it has allowed BML holders to operate tugs with a high 'Bollard Pull' which can be used in ship assisted towing of an unlimited size.⁴ This has created a safety gap where boatmasters can potentially take command of towing or pushing vessels outside the scope of the Regulations, and distorts the level playing field in regards to the relevant tug qualification routes & certificates available to operate similar vessels safely.

While the new Tier 2 structure has evidently increased the numbers of masters taking up these licences, feedback from MCA Surveyors has alluded to a potential concern that these licence requirements are still over-onerous or create over regulation in the BML system. As some masters only need to operate in certain categorised waters, for example A–C and not D, there is a view that boatmasters are trained and tested for waters they never utilise.⁵ This could lead to over-training or cause potential masters to fail examinations on areas their operations do not require. It must be emphasised that these numbers are small, and the figures still provide evidence of the success and positive trend of the implemented Tier 2 licences. Again, a further consultation to gain external views on this subject will be sought to assess whether this has been a significant consequence to the affected SMEs and industry in general.

Moreover, there are noted discrepancies between the 2015 Regulations and Merchant Shipping Notice 1853. It is stated in paragraph 18.1 of MSN 1853 that all BMLs 'are valid for a maximum of five years. To enable the boatmaster to continue operating, it is advised that the licence be revalidated before its expiry date, although an application can be made up to six months after the licence has expired.'⁶ However, the 2015 Regulations state at regulation 26(3) that 'A holder of a boatmaster's licence may before or within twelve months of the date on which the licence expires, apply to the Secretary of State for the licence and any endorsements to be revalidated.'⁷ MSN 1853 should be amended to be consistent with the 2015 Regulations.

Further unintended consequences have been found due to inaccuracies in the wording of the MSN document, specifically Annex 5 Table C of MSN 1853. The 'Accepted Equivalent to the BML Endorsement Qualifying Conditions' contains incorrect wording which has enabled applicants to use certain training certificates instead of the necessary requirements and has created confusion in regard to what certificates are needed to obtain a Paper Endorsement in lieu of a full BML. To ensure that boatmasters remain adequately trained and hold the correct certification, the continued safety of the UK's inland waterways and to help clarify the necessary requirements an amendment is required.

Lastly, in relation to the necessary oral exams on underpinning knowledge and practical assessment of the Regulations, paragraph 3.5 of the MSN 1853 states 'completion of the relevant Maritime Studies Qualifications (MSQ) units is an acceptable alternative to an MCA oral assessment.'⁸ After discussion with the MCA Technical Specialists,

⁴ Bollard pull can be defined as "the force exerted by the vessel/towboat running full ahead while secured by a long line to a stationary bollard".

⁵ The definitions and list of UK Categorised Waters can be found in: *Merchant Shipping Notice 1837 (M) Amendment 2, Categorisation of Waters*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/855605/msn_1837_-_amendment2_june_2017.pdf.

⁶ Merchant Shipping Notice 1853 (M), *The Merchant Shipping (Boatmasters' Qualifications, Crew and Hours of Work) Regulations 2015. Structure and Requirements*, paragraph 18.1, Page 16; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/860287/MSN1853_Complete.pdf.

⁷ Statutory Instrument, 2015 No.410, Merchant Shipping, Safety, The Merchant Shipping (Boatmasters' Qualifications, Crew and Hours of Work) Regulations 2015, regulation 26(3), Page 16; <http://www.legislation.gov.uk/ukSI/2015/410/made>.

⁸ Merchant Shipping Notice 1853 (M), *The Merchant Shipping (Boatmasters' Qualifications, Crew and Hours of Work) Regulations 2015. Structure and Requirements*, paragraph 3.5, Page 5; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/860287/MSN1853_Complete.pdf.

Surveyors and the Chief Examiner the allowance of MSQ Units in place of the BML oral exam requires an amendment. The units, at present, are not equivalent in terms of training standards and include syllabus gaps that are necessary for comprehensive and competent BML training. Moreover, this exemption removes the MCA oral exam and prevents the MCA from assessing boatmasters accordingly to safeguard training standards. Work and communication with the relevant organisations are currently underway to formulate an appropriate BML procedure and standards with regards to the MSQ Units.

The 2015 Regulations do not appear to have introduced onerous new requirements or costs on to the affected SMEs and industry. Despite the unintended effects, the 2015 Regulations enabled the boatmasters and relevant inland waterway groups to gain access to the T2L2 BML, which is a cheaper and easier licence to obtain. Based on internal government feedback and evidence sources, it is apparent that there are certain gaps or safety requirements which need to be resolved to enable the 2015 Regulations and accompanying MSN to be wholly fit for purpose.

6. Has the evidence identified any opportunities for reducing the burden on business?

At present no significant costs or opportunities, other than the unintended consequences previously mentioned, have been ascertained as a result of the evidence base in this PIR.

Correspondence with the MCA's Chief Examiner and Technical Surveyors' did provide an insight into the Regulations proposed effects, the actual effects since implementation and any potential alterations required to enable their intended application. However, where conclusions and opportunities have been realised, they apply to amending the Regulations to ensure they are fit for purpose for the vessels and Boatmasters covered in the 2015 Regulations, as opposed to potentially reducing any burdens on businesses. Nonetheless, these opportunities could reduce costs and burdens if the suggested amendments are implemented.

Through an assessment of the Impact Assessment, consultation packages, supporting evidence and documentation that contributed to the 2015 Regulations formulation, a level of analysis concerning their impact was also ascertained. Moreover, alongside statistics gathered from the available internal Government and external sources, it has enabled some quantitative analysis to aid this PIRs evidence base. This evidence has not highlighted any areas of potential improvement or opportunities to the affected businesses; in contrast, the available evidence has uncovered an under-evaluation to the benefit to businesses borne out of the 2015 Regulations.

However circumstantial evidence, obtained through discussion with effected individuals and Technical experts, has indicated there may be scope for reducing the regulatory burden; for example, the potential over-onerous requirements for assessment on Categories of Waters A-D which are never utilised by certain boatmasters. But there are uncertainties in relation to the amount of evidence to support these claims and how far this problem affects all boatmasters and the affected industry nationwide.

To aid these factors and to cover any potential oversight in terms of opportunities to reduce the burdens on Boatmasters and businesses, we will be looking to undertake a proposed consultation and review in the future. A consultation with external groups to gain further feedback and concerns from wider industry would aid this aspect as well as the evidence in relation to BMLs, and future processes to make the 2015 Regulations fit for purpose.

7. How does the UK approach compare with the implementation of similar measures internationally, including how EU member states implemented EU requirements that are comparable or now form part of retained EU law, or how other countries have implemented international agreements?

The 2015 Regulations included the acceptance of EU inland waterway navigational certificates and policies to allow certain Boatmasters to command EU Class Vessels on UK inland waterways; as per Article (3), point 2 of Council Directive 96/50/EC, as amended by EC Regulation 1882/2003 the United Kingdom holds a derogation to implement its own unique and applicable Boatmaster licensing structure.⁹ This exemption was permitted due to the United Kingdom having specialised Categories of Water and the fact the UK's inland waterways and limited coastal areas, that boatmasters can sail on, are not linked to any other EU Members waterways. Therefore, because of the unique structure of UK Boatmaster Licences, no EU Boatmaster Certificates have been issued by the MCA in the period since the 2015 Regulations introduction, and the Regulations remain predominately a domestic intervention; a comparison with EU States would be over-onerous and unnecessary for this PIR.

⁹ Council Directive 96/50/EC of 23 July 1996 on the harmonization of the conditions for obtaining national boatmasters' certificates for the carriage of goods and passengers by inland waterway in the Community, Article 3(2), Page 2, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31996L0050>.

Evidence Base

Annex 1 – Data collected

Table 1 – Summary of licences before and after 2015 amendments

<i>Tier of License</i>	<i>In Total</i>	<i>2007 – 2015 Issued Licenses / Revalidated</i>	<i>Post 01/04/15 New Licenses Issued</i>	<i>Post 01/04/15 Revalidations</i>
<i>Tier 1 Level 1</i>	15	6	7	2
<i>Tier 1 Level 2</i>	1421	509	237	675
<i>Tier 2 Level 1</i>	1054	N/A	419	620
<i>Tier 2 Level 2</i>	1280	N/A	393	862

Source: MCA BML Database. Data correct as of 13th March 2020.

Evidence was gathered from the current MCA database on boatmasters' licences to check whether the industry utilised these new amendments.¹⁰

The table above contains data gathered from the MCA Boatmasters' Database and details the number of new and revised licences from 2015 to the 13th March 2020. The Database is live and constantly updated, so is considered to be accurate and reliable as an evidence source.

The introduction of the new local specific tidal licence (T2L2), which is quicker to obtain and more appropriate and cost-effective for boatmasters only wishing to operate on local tidal areas compared to the T1L2 national licence. This was expected to have an uptake of 41 applicants a year based on the number of boatmasters that were currently on the exemptions list which totalled 160 at the time of implementation.

In the past 4 years there have been 393 new T2L2 licences issued and 862 revalidations of T1L2 licence holders to T2L2. This is a much higher uptake than was expected, which has resulted in a higher estimated benefit to the market. This is discussed in section 4. The enthusiasm with which the market has taken up the new licence could be an indication that it has been successful in correcting the problems which businesses were facing in attracting viable labour.

In comparison, in the same period there were 7 new Tier 1 Level 1 licences issued and 2 revalidations. While there has been a slight increase for this licence, compared to the 5 issued and 1 revalidation between 2007-2015, it is still limited.

However, for the T1L2 licences, 237 new certificates were issued, and 675 masters revalidated their licences since 4th April 2015. In the overall scope of T1L2 licences, when compared to the 509 licences issued or revalidated prior to the 2015 Regulations (between January 2007 - March 2015) but not continued under the 2015 Regulations (those masters with licences that decided not to revalidate or obtain a new licence under the new Regulations), this illustrates a continued positive trend in boatmaster numbers.¹¹ If these figures are compared with the same period length, of 5 years from 4th April 2010 to 3rd April 2015, then the number of licences issued or revalidated between this period total 290. Again, the figures taken from the MCA's BML database since 4th April 2015 illustrate an upwards trend in terms of the continued uptake by boatmasters to continue serving the UK's inland waterways and industry.

For the T2L1 BML that was introduced at the same time as the T2L2 and replaced the old Tier 2 licences, 419 new certificates were issued and 620 were revalidated. This shows that while there has been an enthusiasm within industry for the T2L2, this has not come at the cost or in place of those wishing to obtain the T2L1 licences.

Revised costings

¹⁰ The figures used in relation to the number of issued boatmaster licences were collated from the MCA's Boatmaster Database. The data was correct as of 13th March 2020.

¹¹ These figures do not count for boatmasters that have revalidated multiple times. Due to reporting constraints with the current BML database, the statistics available and obtained for this PIR are limited.

The 2015 IA estimated that the benefit to the affected businesses from the T2L2 licence would be £3.9m (discounted), with annual uptake of 41 new entrants acquiring these new licences. After five years we expected a benefit of £2.1m.

As the assumed uptake in T2L2 licences has seen a hefty increase compared to what was expected since the 2015 IA, we have provided revised calculations to estimate what the actual benefits felt by industry have been and could be going forward with new assumptions based on new evidence.

There have been 393 T2L2 licences acquired since 2015, compared with the 205 expected in the 2015 IA based on assumption of 41 new licences annually. The use of this assumption was recognised as a potential risk as it was based on the number of exemptions given before the new licence was released, and was seen as being slightly inaccurate, however, there was no counterfactual to compare with at the time as the T2L2 licence was only brought in with the 2015 Regulations.

The actual number of licences issued on an annual basis so far seems to be much larger, with on average 79 new licences acquired annually by industry. There is uncertainty around this number as, out of the 393 new licences, it is not known how many of these were part of the 160 exempted which could result in double counting. When revising the analysis of the benefits to industry we have used sensitivity analysis to produce a range of costs to mitigate these uncertainties and risks around the number of entrants.

For the number of new T2L2 licences we have used 55 annual licences as our central assumption. This is based on there being 120 from the exemption list which opted for the new licence. This was varied in our low and high case scenarios, with the high case scenario being half of the exemption list at 80 with more new licences given to those not already on the list and the low case scenario being where all 160 on the exemption list were to acquire the T2L2 licence.

For the savings this represents, we've taken the cost estimates that were part of the 2015 IA, with the saving between the T1L2 and T2L2 being £10,700.

- High scenario – T2L2 savings x 63 annual licences
- Central scenario – T2L2 savings x 55 annual licences
- Low scenario – T2L2 savings x 47 annual licences

Table 2 – Revised benefits of the T2L2 licence (Discounted, £2014 prices)

<i>£m</i>	<i>Low</i>	<i>Central</i>	<i>High</i>
<i>Benefits so far (T2L2)</i>	£2.4	£2.8	£3.2
<i>Benefits over ten years (T2L2)</i>	£4.4	£5.2	£6.0

Source: MCA estimates (rounded so may not sum)

In our central scenario the revised benefit to industry has been £2.8m with an annual uptake of 55 licences. This could range between £2.4 – 3.2m depending on the number of applicants per year. Over the 10-year appraisal period this represents a cost saving to industry in our central scenario of £5.2m compared to £3.9m from the 2015 IAs original assumptions (discounted) and could range between £4.4 – 6.0m.

Annex 2 – A comprehensive review of the amendments and implemented policy Boatmasters' Licences (BML)

Tier 2 Licences (Restricted Area)

1. The 2015 Regulations introduced a new type of BML (Tier 2 Level 2) for operating on restricted tidal areas. This licence is available for candidates wishing to become a boatmaster on all UK tidal waters in a restricted area. However, those working on the tidal Thames must obtain a Tier 1 Level 2 national licence to operate as a boatmaster.
2. The existing Tier 2 BML was renamed as Tier 2 Level 1 under the 2015 Regulations. This BML is valid for all Category A canals in addition to the waters specified in the individual licences. Holders of Tier 2 licences do not require local knowledge or specialist operation endorsements, as Tier 2 licences are issued for operations in a specified area undertaking specific operations as noted in para. 5.5 of the Merchant Shipping Notice.

Tier 1 Licences (National)

3. The 2015 Regulations and MSN 1853 introduced Medway as a new area in which boatmasters required a Local Knowledge Endorsement (LKE) to operate. Medway is defined as: "The waters within a line from Garrison Point to Grain Tower thence west to shore-line and from the east limits of the Port of Sheerness to Rochester Bridge including the Swale as far as Shellness".¹²
4. With the exception of Qualifying Service Time (QST) for the Port of London LKE, QST for all other LKEs under the Regulations can be counted concurrently with QST for the generic BML.
5. LKEs were no-longer automatically revalidated with the generic BML. The revalidation requirements for the Port of London LKE remained unchanged; revalidation requirements for other LKEs are specified in the accompanying local knowledge Marine Guidance Note. In all instances the revalidation requirements do not exceed the original qualifying ones.
6. Masters may hold a Pilotage Exemption Certificate (PEC) instead of the relevant LKE to operate in waters which require an LKE. However, these masters can only operate within the conditions specified in the PEC. Should they wish to operate outside the limits of their PEC in a local knowledge area, they must obtain the relevant LKE.
7. The 2015 Regulations introduced the requirement for boatmasters to obtain a specialist operation endorsement for masters wishing to undertake: (i) the carriage of chemical and/or liquefied gas cargoes in bulk in both tidal and non-tidal waters; and (ii) Ro-Ro operations in tidal waters.
8. Candidates wishing to obtain a large passenger vessel specialist operation endorsement were no-longer required to first serve as the master of a passenger vessel carrying less than 250 passengers.
9. Under the 2015 Regulations, not all specialist operation endorsements continued to be automatically revalidated with the generic BML. For certain operations, boatmasters need to evidence meeting the revalidation service time for the relevant endorsement(s) as specified in paragraph 19 of MSN 1853.
10. The 2015 Regulations also recognised a range of accepted equivalent training that is required for certain specialist operations. Where masters can evidence having received accepted equivalent training, they are not required to obtain a specialist operation endorsement on their BML.
11. The General Towage Endorsement issued under the Voluntary Towage Endorsement Scheme (MGN 468) is accepted in place of a towing and pushing BML endorsement for masters undertaking towing and pushing.¹³

¹² MCA Authorities & the Port of Medway Authority, *Equivalency Committee meeting*, Tuesday 12 February 2008.

¹³ MGN 468 (M), *Voluntary Towage Endorsement Scheme*,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/442290/MGN_468.pdf.

All Licences

12. All BMLs are valid for five years. It is now noted that it is the boatmasters' responsibility to ensure that they are medically fit to serve as master as per paragraph 16 of the Merchant Shipping Notice.

Vessels engaged in low risk operations:

13. Vessels engaged in low risk operations were formally removed from the scope of the Regulations. A list of identified low risk operations is contained in Annex 2 of MSN 1853.

Accepted Alternative Qualifications to BMLs for masters of small vessels (i.e. commercial vessels carrying no more than 12 passengers and under 24m):

14. The previous list of accepted alternative qualifications for masters of small vessels was extended under the 2015 Regulations. This extended list is located within Annex 3 of MSN 1853.
15. British Wakeboard & Ski Federation (BWSF) Ski Boat Driver Level 2 and Level 3 Certificates are accepted under specific parameters.
16. Masters of small vessels holding an accepted alternative qualification to the BML undertaking towing & pushing, or the carriage of oil, chemical or gas; must obtain a BML specialist operation endorsement or equivalent.

Accepted Alternative Qualifications to BMLs for masters of commercial vessels (any size/operations)

17. The list of accepted alternative qualifications for masters of commercial vessels was extended under the 2015 Regulations. This extended list is contained within Annex 4 of MSN 1853.

Offence

18. It is an offence under the 2015 Regulations for a master to sail without being medically fit.
19. It is an offence under the 2015 Regulations for a Company to allow a vessel to sail knowing the master is not medically fit.

BML Syllabi and Task Record Book

20. The BML syllabi (generic and specialist operation endorsements) are incorporated as annexes 9, 10, 11 & 12 to MSN 1853 and no longer form part of the Statutory Instrument. The syllabi for a number of new specialist endorsements were also developed and implemented.
21. The BML Task Record Book (MSF 4367) was developed and implemented to ensure it contained tasks to reflect the competencies required by the syllabi for the new types of specialist operation endorsements.

The Merchant Shipping (Local Passenger Vessels) (Crew) Regulations 2006

22. The Crew Regulations were incorporated into the current 2015 Regulations, so that all boatmaster related issues are contained in the same location. The 2015 Regulations replicate the content of the Crew Regulations.