

<p><b>Title:</b> The Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018 as amended.</p> <p><b>PIR No:</b> DfTPIR0069</p> <p><b>Original IA/RPC No:</b> RTA00097</p> <p><b>Lead department or agency:</b> Maritime and Coastguard Agency</p> <p><b>Other departments or agencies:</b> N/A</p> <p><b>Contact for enquiries:</b> Alison Kentuck</p>	<b>Post Implementation Review</b>
	<b>Date:</b> 15/01/2024
	<b>Type of regulation:</b> Domestic
	<b>Type of review:</b> Statutory
	<b>Date measure came into force:</b> 12/03/2018
	<b>Recommendation:</b> Keep
	<b>RPC Opinion:</b> N/A

## Recommendation and Summary of Justification

This is a review of the Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018 (SI 2018/68 – **‘the 2018 Regulations’**)<sup>1</sup>. These regulations have been amended by:

- the Merchant Shipping (Fees) Regulations 2018 (SI 2018/1104)<sup>2</sup>.
- the Merchant Shipping (Prevention of Oil Pollution) Regulations 2019 (SI 2019/42)<sup>3</sup>.
- the Merchant Shipping (Port State Control and Prevention of Pollution from Noxious Liquid Substances in Bulk) (Amendment) Regulations 2020 (SI 2020/496)<sup>4</sup>.
- the Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk and Prevention of Oil Pollution) (Amendment) Regulations 2021 (SI 2021/818 – **‘the 2021 Regulations’**)<sup>5</sup>.

The 2018 Regulations contain a provision that requires a review of the regulations by conducting a Post Implementation Review (**‘PIR’**) within 5 years of the regulations being implemented.

The 2018 Regulations, as amended, in particular, by the 2021 Regulations (collectively, **‘the NLS Regulations’**), continue to meet their policy objectives. Evidence gathered for this PIR demonstrates that compliance levels appear to be high and no significant noxious liquid substance (**‘NLS’**) pollution incidents in UK waters or caused by UK flagged NLS vessels are known, suggesting that the policy objective of minimising the risk of damage to the marine environment from NLS has been, and continues to be met. Additionally, a desk-based assessment of the implementation of Annex II of the International Convention for the Prevention of Pollution from Ships (**‘MARPOL’**) was conducted for this PIR. It was conducted by the policy lead and reviewed internally by the Maritime and Coastguard Agency (**‘MCA’**). The assessment entailed a mapping exercise to review the 2018 Regulation’s Statutory Instrument (**‘SI’**) and map it across to the MARPOL Annex II requirements and any amendments to the Annex since the SI came into force. This focussed on the key policy objective of fulfilling the UK’s obligations under MARPOL and making sure that the SI achieved this in all areas.

<sup>1</sup><https://www.legislation.gov.uk/uksi/2018/68/made>

<sup>2</sup><https://www.legislation.gov.uk/uksi/2018/1104/made>

<sup>3</sup><https://www.legislation.gov.uk/uksi/2019/42/made>

<sup>4</sup><https://www.legislation.gov.uk/uksi/2020/496/made>

<sup>5</sup><https://www.legislation.gov.uk/uksi/2021/818/made>

Positive results from the October 2021 International Maritime Organization's ('IMO') audit of the UK, as a flag, port and coastal state under the Member State Audit Scheme ('IMSAS')<sup>6</sup> suggests that the UK continues to fulfil its international obligations under Annex II of MARPOL.

Overall, the NLS Regulations align the United Kingdom ('UK') with international standards. The regulations have ensured that the UK is meeting its international obligations under Annex II of MARPOL, are considered non-contentious, are low-cost (as was determined by the initial regulatory triage assessment in 2018 ('2018 RTA')<sup>7</sup> which concluded that the costs of the measure are significantly below £1 million in its most expensive year, with an estimated cost of £0.6m in the high scenario) and are effectively achieving policy objectives. As such, no amendments have been deemed necessary. If the regulations were to be withdrawn the UK would fail to minimise the risk of damage to the marine environment by NLS carried in bulk at sea, as well as failing to align itself with international IMO obligations. In view of this, the regulations are deemed necessary and the MCA recommends that the 2018 Regulations are fit for purpose and should be **kept**.

## 1. What were the policy objectives of the measure?

### 2018 Regulations

The main policy objectives of the 2018 Regulations were:

- To minimize the risk of damage to the marine environment from NLS carried in bulk by sea.
- To fulfil the UK's international obligations as a contracting party to MARPOL by implementing the revisions to Annex II of MARPOL in UK law.

MARPOL sets out international standards for construction, equipment, procedures, and other control measures for ships, aimed at minimising or preventing ship-source pollution. Annex II of MARPOL makes provision for the prevention of pollution from NLS carried in bulk (i.e., chemical tankers and other vessels with integral tanks which carry bulk liquid chemicals such as offshore support vessels).

The 2018 Regulations govern the design, construction, equipment, documentation and operational procedures for ships carrying NLS in bulk and they are applicable to all vessels carrying NLS, including UK registered ships wherever they may be and non-UK registered ships when in UK waters. The 2018 Regulations encompassed a new pollution categorisation system, new criteria for categorising liquid substances and revised tank cleaning and discharge criteria. They also extended the keeping of cargo records ensuring that essential data is recorded, and controlling operational discharges to ensure that they are made in a responsible manner to minimise pollution incidents and danger to the marine environment. The overarching intention of the 2018 Regulations is to reduce ship-source pollution given the advancements of new scientific knowledge about chemical properties and their environmental impacts as well as improvements in shipboard technology.

### 2021 Regulations

The policy objectives of the 2021 Regulations were twofold. Firstly, to implement new provisions for offshore support vessels ('OSV'), which carry NLS in bulk by implementing the OSV Chemical Code as a certification standard for OSVs constructed or adapted after 1 July 2018. This measure was to permit UK flagged OSVs to benefit from the new OSV Chemical Code and to ensure that the UK remained compliant with its obligations under MARPOL. Secondly, the 2021 Regulations aimed to clearly permit the keeping of Cargo Record Books in an electronic format. The keeping of Cargo Record Books in a standard format

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<sup>6</sup> <https://www.imo.org/en/OurWork/MSAS/Pages/Default.aspx>

<sup>7</sup> [https://www.legislation.gov.uk/uksi/2018/68/pdfs/uksiod\\_20180068\\_en.pdf](https://www.legislation.gov.uk/uksi/2018/68/pdfs/uksiod_20180068_en.pdf)

is mandatory under Annex II. Amendments to MARPOL which came into force in October 2020 permitted the keeping of certain mandatory record books in electronic format as an alternative to a hard copy. The 2018 Regulations were drafted in such a way that this was already permitted but it was not explicit. The 2021 Regulations amended the 2018 Regulations to clearly permit the keeping of Cargo Record Books in either electronic format or hard copy.

These policy objectives have not changed since the introduction of the NLS Regulations. The scope of this PIR covers the NLS Regulations in their entirety, in order to form a comprehensive conclusion on whether the regulations are suitable and effective in accomplishing their goals, and to further explore their prospects for the future.

## 2. What evidence has informed the PIR?

Based on the proportionality criteria in the Better Regulation Framework Manual and Magenta Book, a low level of resource has been used to inform a “light-touch review” of the evidence base in the 2018 RTA that was created at the time of implementation in 2018 and the assessment at the time of the implementation of the amending 2021 Regulations.

A variety of evidence has been used to inform this PIR of the NLS Regulations. This includes:

- IMO IIIC Code Audit of the UK (October 2021).<sup>8</sup>
- Consultation for the Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk and Prevention of Oil Pollution) (Amendment) Regulations 2021<sup>9</sup>.
- Desk-based assessment of the NLS Regulations and implementation of MARPOL Annex II (see Annex A below).
- Stakeholder survey (questionnaire) (see Annex C).
- A review of Port State Control (‘PSC’) inspections for the 12-month period up to October 2022 to demonstrate levels of compliance and achievement of policy objectives (see Annex B).
- A review of NLS ships on the UK flag using data from Clarkson’s.

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

Overall, this PIR finds that the NLS Regulations have been implemented and are in operation with widespread compliance.

### Overall effectiveness against key policy objectives:

#### **Objective 1** – Preventing Pollution of the Marine Environment by NLS

The lack of obvious breaches, lack of evidence of pollution, engagement at IMO and with stakeholders suggests that this has been satisfactorily achieved.

#### **Objective 2** – Implementation of MARPOL Annex II

The results of the desk-based assessment, in addition to the IMO’s III Code audit findings, and the lack of evidence of any deficiency related to Annex II and/or any form of non-compliance during PSC inspections leads to the conclusion that implementation of MARPOL Annex II has been satisfactorily achieved.

The key policy objective of minimising the risk of damage to the marine environment from NLS has been achieved. Since the 2018 Regulations came into force, there has been no evidence of significant breaches

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<sup>8</sup> <https://www.gov.uk/government/news/iii-code-audit-excellent-result-for-the-united-kingdom>

<sup>9</sup> <https://www.legislation.gov.uk/ukxi/2021/818/made>

of the regulations having taken place and no prosecutions in the UK for breaches of the regulations. PSC inspections of non-UK ships in UK ports in the 12 months leading up to October 2022 were reviewed, in total this included the reviewing of 120 MARPOL deficiencies of which none relating to MARPOL Annex II (as implemented by the 2018 Regulations) were found (see Annex B of this document for full list). Mandatory survey data for UK ships from the last 12 months has also been reviewed for the purposes of this PIR, and no deficiencies or non-compliances were found related to the requirements of the 2018 Regulations. In general terms, this suggests that the regulations are understood, not unreasonably burdensome, and are being complied with. Data on MCA prosecutions for the period between June 2020<sup>10</sup> and 2022 has also been reviewed. No prosecutions for NLS discharges have been undertaken<sup>11</sup>.

A further objective of the 2018 Regulations was to fulfil the UK's international obligations as a contracting party to MARPOL. This was externally assessed in October 2021 when the IMO carried out a comprehensive audit of the UK's implementation of mandatory obligations under both MARPOL and the International Convention on the Safety of Life at Sea under IMSAS. The results of the IMO's audit of the UK were very good, with only two findings, neither of which related to the UK's implementation of MARPOL Annex II or the effectiveness of the 2018 Regulations, compared to the average number of findings in an IMO audit of around 12. This demonstrates that the second objective of the 2018 Regulations, that of meeting the UK's international obligations, has been and continue to be met.

Additionally, to facilitate the smooth and efficient implementation of international obligations under MARPOL, the 2018 Regulations include ambulatory reference ('**AR**') provisions which provide a vehicle through which amendments to safety standards and technical provisions can be quickly adopted into UK law, keeping the UK up to date with its international obligations as a contracting party to the MARPOL. This AR provision was used to good effect when amendments were made in Annex II to the cargo tank washing requirements for ships which have carried vegetable oils. The UK was instrumental in proposing those changes to MARPOL Annex II through the relevant IMO forums as part of a coordinated response to repeated pollution incidents on North Sea shorelines involving waxy deposits of vegetable oils.

This amendment came into force on 1 January 2021 and the AR provisions in the 2018 Regulations enabled the efficient coming into force of the new provisions in the UK on the same date that they came into force internationally, ensuring that the UK fulfilled its international obligations and that UK and non-UK ships operated on a level playing field inside and outside of UK waters. To ensure transparency, the amendments were made in consultation with industry bodies, a Written Ministerial Statement (HCWS474<sup>12</sup>/HLWS471<sup>13</sup>) was laid in both Houses and a Marine Information Note ('**MIN**') published for stakeholder guidance (MIN 651<sup>14</sup>).

An informal stakeholder consultation was undertaken as part of this PIR. 12 stakeholders were contacted, with only three substantive responses received (25% response rate). Out of the three responses, no respondents felt that the regulations had not been effective. All respondents stated that the regulations should be kept with no changes.

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<sup>10</sup> Data from June 2020 onwards available on iBase. Archive data available on other platforms.

<sup>11</sup> One discharge incident is currently under investigation and it is not yet possible to say what the outcome will be.

<sup>12</sup> <https://questions-statements.parliament.uk/written-statements/detail/2020-09-29/hcws474>

<sup>13</sup> <https://questions-statements.parliament.uk/written-statements/detail/2020-09-29/HLWS471>

<sup>14</sup> <https://www.gov.uk/government/publications/min-651-m-amendments-to-marpol-annex-ii-and-the-ibc-code>

Sign-off for Post Implementation Review: Director, UK Maritime Services, MCA 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

Date: 04/12/2023

Signed: Davies of Gower

Date: 12/02/2024

## 4. What were the original assumptions?

The additional costs for existing UK registered ships due to the changes in MARPOL Annex II that would come into force via the 2018 Regulations were estimated at up to £0.6 million, but that was considered to be an overestimate. The range of estimates between a low and high scenario was £0 to £0.6 million with a best estimate of £0.3 million. In particular, the MCA expected at the time that the majority of vessels carrying NLS on international voyages would be complying with the requirements of the revised MARPOL Annex II and would therefore already be meeting the requirements of the 2018 Regulations. The analysis provided was light touch due to the low levels of impacts.

	<b>Low</b>	<b>Best</b>	<b>High</b>
Record logbooks	£0	£350	£700
Updating plans/manuals	£0	£270,300	£540,600
Recertification costs	£0	£53,000	£106,000
Total	£0	£323,650	£647,300

Table 1: Estimated total one-off costs (£, 2016 prices) <sup>15</sup>

### Numbers of vessels impacted.

At the time of the implementation in 2018, the MCA conducted an evaluation of the potential impact of the regulations and noted that a maximum of 106 vessels on the UK flag were potentially affected. The impact assessment noted that this was likely an overestimate of the impact, for two reasons. Firstly, the MCA considered that the majority of the vessels then operating under the UK flag were already adhering to the requirements of MARPOL Annex II, as this is already required in order for the vessels to operate internationally. Secondly, the figure of 106 vessels is extracted from the total number of ships under the UK flag which can potentially carry NLS including oil tankers, which can also carry mineral oil products not covered by the regulations. As such, 106 was estimated to be the highest figure and the central number of vessels impacted was estimated to be around 53. This figure is based on the midpoint between the low estimate of 0 and the high estimate 106, the low figure reflecting the assumption that none of the ships would be affected.

	<b>Low</b>	<b>Best</b>	<b>High</b>
Number of ships	0	53	106

Table 2: number of vessels estimated to be impacted.

<sup>15</sup> [https://www.legislation.gov.uk/uksi/2018/68/pdfs/uksiod\\_20180068\\_en.pdf](https://www.legislation.gov.uk/uksi/2018/68/pdfs/uksiod_20180068_en.pdf)

Type of Vessel	2018	2022
LNG Carrier	3	3
LPG Carrier	1	2
Drill Ship	4	4
Chemical Bulk Tanker	7	8
Chemical Parcel Tanker	18	19
Well Stimulation Vessel	1	1
Multi-Purpose Support	3	3
PSV (OSV)	24	27
<b>Total</b>	<b>61</b>	<b>67</b>

Table 3: vessels on the UK Flag by type of vessel.

Table 3 shows the current (2022) number and types of NLS ships registered on the UK Flag.

Table 2 and Table 3 show that whilst the central scenario was possibly an underestimate of the number of vessels impacted by the regulations, the total for the implementation year of 2018 was 61 and therefore still within the central to high range. The assumption was therefore reasonable.

### Costs

The MCA carried out a cost assumptions assessment in 2022 for the PIR to evaluate how proportionate the estimated costs were to the actual costs of the regulations. The results of the assessment found that for updating cargo record books the estimated cost of £6.60 (2016 prices) was accurate as this was based on an actual purchase price at the time. The assessment enquired if there were any corrections to this as of 2022 (when the PIR was conducted), none were identified, the cargo record books are currently available for between £5 & £12 (using the Bank of England inflation calculator,<sup>16</sup> this is £4 and £10 in 2016 prices). It is expected that most would buy the cheapest since the products are the same.

Updating associated manuals and plans was estimated to cost £5,100, which is deemed to be accurate. This figure was provided by industry and there were no corrections identified in 2022.

Recertification costs were estimated to be £1,034 in the initial assessment. The estimate was found to be accurate and based on the 11 hours of survey time for an estimated £94 per hour, which was the statutory fee at the time. The inspector fee increased eight months after the regulation came into force, which would have increased this cost element, but most vessels were likely to have been recertified by then. As of November 2018, the MCA surveyor hourly fee was £120, and then increased again to £147 in November 2019.<sup>17</sup> However, this fee increase was assessed as part of the Fees Regulation in 2018<sup>18</sup> and was a reasonable assumption for the analysis.

There has been no evidence nor other feedback to date to suggest the cost estimates in the impact assessment for the 2018 Regulations were not fair and reasonable. The data gathered for this PIR suggests that the number of vessels impacted by the 2018 Regulations, although higher than the best estimate of 53, is still within scope of the figures estimated for the impact assessment.

<sup>16</sup> <https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator>

<sup>17</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/748455/Maritime Coastguard Agency fees 2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/748455/Maritime_Coastguard_Agency_fees_2018.pdf)

<sup>18</sup> <https://www.legislation.gov.uk/ukxi/2018/1104/made>

## Benefits

The 2018 Regulations had the potential to further reduce the risk of harm to the marine environment and the associated costs of such incidents, though the available evidence indicated that this risk was already low and, given the limitations of the available evidence, it was not possible to monetise the potential benefits. By meeting its international commitments to MARPOL, the UK could maintain its reputation as a quality maritime regulator and help to ensure that UK registered ships were not penalised when visiting ports in other member states for not complying with the requirements of MARPOL Annex II.

Overall, the original analysis is thought to have been reasonable.

## **5. Were there any unintended consequences?**

The MCA has not identified nor had any stakeholder feedback that has highlighted any unintended consequences. The stakeholder survey that was carried out as part of this PIR asked whether any unintended consequences had been identified and no respondents noted any negative effects. Although the 2018 Regulations introduced some new elements, for the most part, they updated and restated existing requirements. Additionally, the amendments to MARPOL Annex II that were introduced in the 2018 Regulations had been developed at IMO in conjunction with industry bodies meaning that there were opportunities during the development stages for stakeholders to identify and address potential unintended consequences.

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

No significant reduction in the carriage of NLS by sea in and around the UK has been identified, it remains a crucial part of the supply chain for a variety of industries, for example the use of, and trade in, biofuels to assist in the push towards decarbonisation goals. The international consensus remains that the carriage of NLS needs to be controlled and vessels carrying NLS internationally need to apply the IMO minimum standards. None of the respondents to the survey reported any difficulties with complying to the regulations.

This review process has not identified any opportunities, or need, to reduce the burden on business. The 2018 Regulations cover the carriage in bulk of the most toxic and potentially environmentally harmful substances that are transported by sea. It is therefore prudent to have in place internationally agreed safety and pollution prevention standards. A desk-based review of the UK's implementation of MARPOL Annex II carried out for this PIR did not identify any areas where the UK's approach had gone above and beyond the international standard or created any additional or unnecessary burden on business.

This lack of opportunity to reduce burdens on business is largely because of the 2018 Regulations having been kept under regular review since they came into force. Additionally, the IMO's specialist group on the Evaluation of Safety and Pollution Hazards of Chemicals ('**ESPH**') meets twice a year to assess chemical products and set or amend carriage requirements, ensuring that the international requirements are kept up to date and reflect current industry activities.

Additionally, the review and amendments to the regulations that took place in 2021 were the implementation of the OSV Chemical Code, which is a derogation of the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk ('**IBC Code**'), the main international standard for chemical tankers, and the implementation of electronic record keeping, both of which result in the reduction of industry burdens. The IMO have long recognised that although OSVs carry bulk liquid chemicals, the quantity, type and purpose of these chemicals is specific to the offshore oil and gas industry and that full compliance with the IBC Code is unnecessarily burdensome. For this reason, the OSV Guidelines were established in 1989 and then the OSV Chemical Code built on those to recognise advances in the oil and gas industries since then. The OSV Chemical Code is tailored to the needs of the OSV industry and provides them with a safety standard appropriate to their needs rather than requiring full IBC Code compliance as if they were a purpose-built chemical tanker. The amendment to MARPOL Annex II (and to the 2018 Regulations) related to electronic record keeping is non-mandatory, meaning that ship



operators can retain their hardcopy cargo record books if they prefer. However, with the growth of digitalisation of the global shipping industry and maritime single window portals etc. for those that want to benefit from efficiencies of digitalisation, the amendments to the NLS Regulations provided this opportunity along with the associated guidance on standards and approvals.

The stakeholder survey that was carried out as part of this PIR did identify opportunities for improving the guidance that accompanies the 2018 Regulations. This related specifically to the role of MARPOL Annex II Surveyors and to port waste reception facilities. This will be actioned through either a new Marine Guidance Note ('MGN') or updates to existing guidance on gov.uk.<sup>19</sup>

## **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?**

As these regulations transposed IMO revisions to MARPOL, to which the UK is a signatory, and it is UK policy not to gold plate international regulation unless there is justification to do so, it is considered appropriate to do the minimum required for full compliance when implementing the revisions into UK Law. Therefore, the UK approach is considered to be comparable with the implementation of MARPOL Annex II by those administrations whose policy is equitable to that of the UK. Respondents to the stakeholder survey responded that they considered it important for the UK regulations to align with international standards.

This is in part evidenced through the review of PSC inspections which was undertaken as part of this PIR process. This demonstrates that there have been no MARPOL Annex II deficiencies noted on any non-UK ships in UK waters in the last 12 months (Annex B, section 2). This suggests that other Flag States have implemented the regulations in a sufficiently similar manner that they conform to the UK requirements. These PSC statistics related to vessels from a variety of other member states including Denmark, Malaysia, USA, Norway, Italy, Belize, Liberia, Panama, Marshall Islands and Singapore.

Due to the movement of bulk liquid chemicals for the offshore oil and gas industry, the UK liaises regularly with North Sea neighbours, in particular Norway, Finland, Netherlands, France and Belgium, but also the Marshall Islands (who are active at ESPH and on whose flag a number of OSVs operating in the North Sea are registered). Additionally, the IBC Code (which is a mandatory code under Annex II), sets out a process for parties to the convention to enter into tripartite agreements for the carriage of products not yet listed in the Code. As part of this process, the UK regularly interacts with other member states on the proper implementation of this requirement enabling the identification of any significant deviations in implementation.

### Norway

UK policy leads liaison regularly with Norwegian counterparts to ensure as seamless an approach as possible to the carriage of bulk liquid chemicals in the UK and Norwegian North Sea sectors. When developing MGN 649 in support of the 2021 Regulations and the implementation of the OSV Chemical Code, UK and Norwegian policy leads developed guidance bilaterally as far as was possible to ensure a consistent approach. MGN 649 largely corresponds to the Norwegian Circular RSV 23-2020<sup>20</sup>. The UK and Norway have also liaised on approvals of alternative measures (for example on requirements for pressure/vacuum valves on cargo tanks and the carriage of backloads) in recognition of the fact that OSVs move frequently around the North Sea between offshore installations and crossing between the UK and Norwegian sectors.

In order to assess how other member states have implemented MARPOL Annex II and how this matches up to the UK approach, the policy leads have focussed on the introduction of the OSV Chemical Code, which has taken place since the 2018 Regulations came into force and the implementation of which was

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<sup>19</sup> [Existing MARPOL Annex II surveyor guidance on gov.uk](#)

<sup>20</sup> <https://www.sdir.no/en/shipping/legislation/directives/carriage-of-hazardous-and-noxious-liquid-substance-in-bulk-on-existing-offshore-support-vessels-after-31-december-2020/>

the main focus of the 2021 amendment regulations. In the UK, there are two main features of our policy approach to the OSV Chemical Code. Firstly, a transition period was offered from 1<sup>st</sup> January 2021 to 31<sup>st</sup> December 2021 to allow OSV owners/operators a margin of time to make operational decisions on whether or not to convert their existing vessels to the OSV Chemical Code. Secondly, a policy decision was taken to permit the continuation of the existing OSV Guidelines and only require the use of the new OSV Chemical Code for vessels built after the coming into force date. The IMO had agreed that the OSV Chemical Code superseded (but did not revoke) the OSV Guidelines, leaving the detail of the implementation of these two standards up to member states.

Policy leads are aware that many member states have followed suit but, for the purposes of this PIR, a light-touch review of member states with guidelines on the OSV Chemical Code published in English and readily accessible was conducted. The following were reviewed:

### USA

Although the legislative frameworks differ, the USA has taken a similar approach to the UK in terms of the bulk carriage of NLS. This can be seen in US Coastguard Engineering Policy Letter 03-12 CH-1<sup>21</sup> which sets out policy on the carriage of bulk chemicals on OSVs. As in the UK, the US approach has been to recognise both the OSV Guidelines (A.673(16)) and the OSV Chemical Code (A.1122(30)) based on the construction date of the vessel.

### Finland

Traficom, the transport division of the Finnish government, has published a list of mandatory ship certificates that their Recognised Organisations are authorised to issue on their behalf. For bulk chemicals, this includes the IBC Code certificate (the main international standard for chemical tankers, of which the OSV Chemical Code is a derogation specifically tailored for OSV requirements), the OSV Guidelines and the OSV Chemical Code. This demonstrates, through the Finnish RO agreement<sup>22</sup>, that both the OSV Guidelines and the OSV Chemical Code are permitted standards in Finland in the same way that they are in the UK.

### Marshall Islands

The maritime administration of the Marshall Islands has published Marine Guideline No.1-13-8<sup>23</sup> which sets out the same transition period as was established in the UK and also permits the continuation of the OSV Guidelines after the end of that transition period, alongside the OSV Chemical Code, as is the case in the UK.

### Isle of Man

As the Isle of Man is a Crown Dependency and part of the Red Ensign Group, it is logical to assume that a similar approach will be taken to that of the UK. However, the Isle of Man has its own government and its own maritime administration and is capable of determining its own policy. However, Technical Advisory Notice 001-21<sup>24</sup> sets out the same transition period as was established in the UK and also permits the continuation of the OSV Guidelines after the end of that transition period, alongside the OSV Chemical Code, as is the case in the UK.

Anecdotal information suggests that some other member states have taken a different approach and have required the transition of all existing OSVs to the OSV Chemical Code. The UK is not expecting this of UK flagged OSVs or of non-UK flagged OSVs when in UK waters. However, MGN 649 does explain that as the OSV Guidelines and the OSV Chemical Code are implemented at the discretion of each member state, OSV owners and operators should check local requirements when operating outside of the UK.

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<sup>21</sup> [https://www.american-club.com/files/files/USCG\\_Hazardous\\_Noxious\\_Liquids\\_Bulk\\_May\\_2022.pdf](https://www.american-club.com/files/files/USCG_Hazardous_Noxious_Liquids_Bulk_May_2022.pdf)

<sup>22</sup> [https://www.traficom.fi/sites/default/files/media/file/Traficom%20RO%20Agreement%20Appendix%201\\_2021\\_Final.pdf](https://www.traficom.fi/sites/default/files/media/file/Traficom%20RO%20Agreement%20Appendix%201_2021_Final.pdf)

<sup>23</sup> <https://www.register-iri.com/wp-content/uploads/MG-2-13-8.pdf>

<sup>24</sup> <https://www.iomshipregistry.com/media/2244/001-21-application-of-osv-chemical-code-transitional-period.pdf>

# Annexes

## Annex A: Legislative Context

### 2018

The 2018 Regulations implement Annex II (Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk) of MARPOL 73/78 (as revised), an International Convention made by the International Maritime Organization for the prevention of pollution from ships.

Annex II was revised in light of new scientific knowledge of the properties of the various liquid substances and their effect on the marine environment, improvements in technology and to make the regulatory regime simpler to use. The revision encompassed a new pollution categorisation system and criteria for assigning products to these new categories, and revised the cargo tank stripping requirements (i.e., emptying and cleaning) and noxious liquid substances discharge criteria.

### 2021

The 2021 Regulations amend the 2018 Regulations to implement new requirements for offshore support vessels carrying noxious liquid substances in bulk built or adapted on or after 1st July 2018 and to permit the cargo record book required to be kept by all ships subject to the 2018 Regulations to be kept in an electronic format as an alternative to a paper version.

### MARPOL

The International Maritime Organization's Convention for the Prevention of Pollution from Ships 1973/78 (MARPOL) sets out international standards for construction, equipment and other control measures on ships aimed at minimising or preventing pollution from ships. MARPOL has six technical annexes, each of which sets out international standards for the prevention of a specific type of ship-source pollution.

### MARPOL Annex II

Annex II of MARPOL entered into force on 6th April 1987. Its purpose is to protect the marine environment by controlling operational pollution and reducing accidental pollution resulting from groundings and collisions from ships carrying Noxious Liquid Substances in bulk.

Annex II has been amended several times and the new revised Annex II of MARPOL came into force on 1st January 2007. It applies to all ships carrying NLS in bulk – essentially chemical tankers, or oil tankers when carrying NLS – and also to gas carriers when carrying liquefied gases which are also Annex II products. It prohibits the discharge of NLS into the sea, other than in specified circumstances, and also prohibits the carriage and discharge into the sea of liquid substances which have not been assessed and categorised as required under Annex II to ascertain whether they have the potential to harm the marine environment.

Annex II lays down specific requirements for ships carrying NLS in bulk including requirements in relation to design and construction, ship certification, the record of cargo operations and the control of operational discharges. It also sets out inspection requirements for port states and requirements in relation to the provision of reception facilities for cargo residues from the stripping of cargo tanks.

A number of Codes are referred to in Annex II which apply to specific ship types and impose associated requirements. The purpose of these Codes is to provide an international standard for the safe carriage in bulk by sea of dangerous chemicals and noxious liquid substances. They prescribe the design and construction standards of ships, regardless of tonnage, involved in such carriage and the equipment which must be carried to minimize the risk to the ship, its crew and the environment, having regard to the nature of the products involved. Annex II of MARPOL uses the Codes to identify ship types and as a method of control to ensure that such ships are regulated and certified to industry agreed standards.

As a member of the International Maritime Organisation the UK is committed to introducing into national legislation those conventions and treaties to which it is a signatory, of which MARPOL Annex II is one. The UK therefore has a duty to amend existing legislation to reflect international changes.

## Annex B: Port State Control Inspections – MARPOL Annex II Non-Compliances

In order to determine how successfully the NLS Regulations had achieved their goal of preventing pollution of the marine environment, a review of PSC inspections was conducted by the MCA. In particular, all MARPOL deficiencies in the 12 months up to October 2022 were investigated. This showed a total of 120 MARPOL deficiencies noted in PSC inspections. However, none of these were MARPOL Annex II deficiencies, suggesting that the NLS Regulations, which implement MARPOL Annex II are well understood and are complied with.

The following table details PSC inspection data for all MARPOL deficiencies for the time period given above. This shows that there are no Annex II related deficiencies.

<b>Summary of MARPOL Deficiencies for PSC inspections in UK ports in 12-month period up to October 2022</b>	
<b>Anonymised Data (ship details, dates and locations removed)</b>	
<b>Ship Type</b>	<b>Defective MARPOL Item</b>
Bulk carrier	Sewage treatment plant
Offshore supply	Control of discharge (oil)
Offshore supply	Garbage shipboard handling
General cargo/multipurpose	Other MARPOL Annex V
Ro-Ro cargo	Sewage treatment plant
General cargo/multipurpose	Pumping, piping and discharge arrangements (oil)
General cargo/multipurpose	Suspected of discharge violation (oil)
Other special activities	Garbage shipboard handling
Ro-Ro cargo	Oil filtering equipment
Ro-Ro cargo	Other (MARPOL Annex I)
General cargo/multipurpose	Sewage treatment plant
Bulk carrier	Sewage treatment plant
Chemical tanker	Sewage treatment plant
Container	Pumping, piping and discharge arrangements (oil)
Mobile offshore drilling unit & floating production storage and offloading	Placards (garbage)
General cargo/multipurpose	Placards (garbage)
Oil tanker	Sewage treatment plant
Bulk carrier	Garbage shipboard handling
General cargo/multipurpose	Sewage comminuting and disinfecting system
Bulk carrier	15 PPM Alarm arrangements (oil)
Ro-Ro cargo	Oil/water interface detector (oil)
Container	Garbage management plan
Bulk carrier	Garbage management plan
General cargo/multipurpose	Oil and oily mixtures from machinery spaces
Oil tanker	Other MARPOL Annex V
General cargo/multipurpose	Sewage treatment plant
Ro-Ro cargo	Garbage management plan
General cargo/multipurpose	Other (MARPOL Annex I)
Oil tanker/Chemical tanker	Placards (garbage)

Container	Pumping, piping and discharge arrangements (oil)
Oil tanker	Other MARPOL Annex V
Oil tanker	Oil discharge Monitoring and control system
Ro-Ro cargo	Oil filtering equipment
General cargo/multipurpose	Pumping, piping and discharge arrangements (oil)
Chemical tanker	Stowage (hold cleaning chemicals)
Chemical tanker	Sewage treatment plant
Bulk carrier	15 PPM Alarm arrangements (oil)
General cargo/multipurpose	Pumping, piping and discharge arrangements (oil)
Ro-Ro passenger ship	Other (MARPOL Annex I)
Ro-Ro passenger ship	Oil filtering equipment
Bulk carrier	Sewage comminuting and disinfecting system
Ro-Ro passenger ship	Garbage shipboard handling
Offshore supply	Oil and oily mixtures from machinery spaces
Bulk carrier	15 PPM Alarm arrangements (oil)
General cargo/multipurpose	Placards (garbage)
Offshore supply	Retention of oil on board
Oil tanker	Sewage treatment plant
Oil tanker/Chemical tanker	Sewage treatment plant
Offshore supply	Retention of oil on board
Chemical tanker	Garbage shipboard handling
General cargo/multipurpose	Garbage management plan
Offshore supply	Standard discharge connections (oil)
General cargo/multipurpose	Placards (garbage)
Bulk carrier	Sulphur content of fuel used
General cargo/multipurpose	Pumping, piping and discharge arrangements (oil)
Tug	Other (MARPOL Annex IV)
Fish factory	Placards (garbage)
General cargo/multipurpose	Garbage shipboard handling
Passenger ship	Oil filtering equipment
General cargo/multipurpose	Bunker delivery notes
Passenger ship	Oil filtering equipment
General cargo/multipurpose	15 PPM Alarm arrangements (oil)
Oil tanker	15 PPM Alarm arrangements (oil)
Bulk carrier	Other (MARPOL Annex IV)
Container	15 PPM Alarm arrangements (oil)
Oil tanker/Chemical tanker	15 PPM Alarm arrangements (oil)
Bulk carrier	Standard discharge connections (oil)
General cargo/multipurpose	Bunker delivery notes
Oil tanker	Sewage treatment plant
Bulk carrier	Alternative arrangements (SOx)
Gas carrier	15 PPM Alarm arrangements (oil)
Oil tanker/Chemical tanker	Sewage discharge connection
General cargo/multipurpose	Placards (garbage)
Bulk carrier	Garbage shipboard handling
General cargo/multipurpose	Sewage discharge connection
Bulk carrier	Garbage management plan
Oil tanker/Chemical tanker	Garbage shipboard handling
General cargo/multipurpose	Other (MARPOL Annex I)

Chemical tanker	15 PPM Alarm arrangements (oil)
Oil tanker	15 PPM Alarm arrangements (oil)
Gas carrier	Other (MARPOL Annex IV)
Offshore supply	Other (MARPOL Annex I)
Container	Technical files and if applicable, monitoring manual (NOx)
General cargo/multipurpose	15 PPM Alarm arrangements (oil)
Gas carrier	Other (MARPOL Annex IV)
Passenger ship	Ozone-depleting substances
MODU & FPSO	Control of discharge (oil)
Ro-Ro passenger ship	Other (MARPOL Annex IV)
Container	Sewage treatment plant
Oil tanker/Chemical tanker	Sewage treatment plant
Container	Other (MARPOL Annex IV)
General cargo/multipurpose	Sewage treatment plant
General cargo/multipurpose	Other (MARPOL Annex IV)
Oil tanker	Garbage management plan
Offshore supply	Garbage management plan
General cargo/multipurpose	Bunker delivery notes
Gas carrier	Other MARPOL Annex V
Chemical tanker	Ballast Water Management Plan
Gas carrier	Garbage management plan
Dredger	Other (MARPOL Annex IV)
Other special activities	Sewage treatment plant
General cargo/multipurpose	Garbage management plan
General cargo/multipurpose	Garbage management plan
General cargo/multipurpose	Ballast Water Management Plan
General cargo/multipurpose	Placards (garbage)
Container	Oil filtering equipment
Bulk carrier	Approved method (Exhaust Gas Cleaning Systems)
General cargo/multipurpose	Oil and oily mixtures from machinery spaces
Oil tanker/Chemical tanker	Ballast Water Management Plan
Other special activities	15 PPM Alarm arrangements (oil)
Container	Ballast Water Record Book
Oil tanker	Garbage shipboard handling
General cargo/multipurpose	Oil filtering equipment
General cargo/multipurpose	Other BWM
Other special activities	Ship type designation (International Oil Pollution Prevention certificate)
General cargo/multipurpose	Oil discharge monitoring and control system
Ro-Ro passenger ship	Garbage management plan

## Annex C: Stakeholder Survey (Questionnaire)

We would like your views on the issues set out below. There are nine general questions to consider.

*Measuring the extent to which the regulation has achieved its objectives.*

1. To what extent do you agree that the Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018 have been effective in minimizing the risk of damage to the marine environment from Noxious Liquid Substances (NLS) carried in bulk by sea?

- € Strongly agree
- € Agree
- € Unsure
- € Disagree
- € Strongly disagree
- € Do not know
- € N/A (Not Applicable)

Please explain your answer below:

2. To what extent are you satisfied that there was enough time and information to prepare your business to adjust to meet the requirements of the regulations?

- € Strongly agree
- € Agree
- € Unsure
- € Disagree
- € Strongly disagree
- € Do not know
- € N/A (Not Applicable)

Please explain your answer below.

3. Please described below any challenges have arisen from the implementation of the regulations.

4. Have you experienced any unintended consequences as a result of the implementation of the regulation?

- € Yes
- € No
- € Don't know
- € N/A

Please explain your answer below.



5. How would you describe your experience of complying with the requirements of the regulation?

Complying with the regulation has been:

- € Very easy
- € Fairly easy
- € Neither easy nor difficult
- € Fairly difficult
- € Very difficult
- € Don't know
- € (N/A)

Please explain your answer below.

*Measuring the business impacts of regulation.*

6. When reviewing regulations, it is standard practice to assess if these have had a disproportionate impact on medium-sized businesses (between 250 and 500 employees). To what extent do you believe that your business has been disproportionately affected by this regulation in relation to other businesses?

- € Very positively affected
- € Fairly positively affected
- € Neither positively nor negatively affected
- € Fairly negatively affected
- € Very negatively affected
- € Don't know
- € n/a

Please explain your answer below.

7. In your view, to what extent has there been a significant impact on the level of competition within the industry due to the regulations?

- € Very positively affected
- € Fairly positively affected
- € Neither positively nor negatively affected
- € Fairly negatively affected
- € Very negatively affected
- € Don't know
- € n/a

Please explain your answer below.

*Identifying potential improvements to the regulations*

8. Select from the list below what your recommendations would be for the next step for the regulations.

- € No changes: renew the regulation
- € Make amendments to the regulation
- € Remove the regulation
- € Replace the regulation with a new set of regulations
- € Don't know
- € N/a

Please explain your answer below.

9. Do you have any further comments that you would like to add about the Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018? If so, please provide them below.