



Engine Emission Standards Applicable to Inland Waterway Vessels

Notice to all Shipowners, Certifying Authorities, Shipbuilders, Ship repairers, Ship Masters and Surveyors

This Note should be read in conjunction with MGN 647 (M+F) - Alternative to the IMO MARPOL Annex VI Tier III Standard Engine

Summary

This Marine Guidance Note provides clarification concerning the applicable engine standards for vessels operating on inland waterways.

MARPOL Annex VI requirements apply to vessels operating on tidal Category C, and D waters, as well as to sea.

Requirements of the NRMM Regulation apply to vessels operating on Category A, B, C and D waters.

1. Introduction

1.1 This Notice is intended to provide an overview of the regulatory framework governing engine emission standards applicable to United Kingdom inland waterway vessels, and to provide guidance on the practical application of those requirements in the context of vessel type and area of operation on United Kingdom inland waterways.

1.2 This information is provided as guidance only and is not intended to alter the existing regulatory framework.



2. Categorisation of Waters

2.1 United Kingdom Inland Waterways are defined for the purposes of section 85 of the Merchant Shipping Act 1995 in accordance with Merchant Shipping Notice MSN 1837, Amendment 2 – Categorisation of Waters. The categorisations are given legal force by virtue of Regulation 2 of the Merchant Shipping (Categorisation of Waters) Regulations 1992 (SI 1992/2356).

2.2 MSN 1837 defines UK inland water Categories as follows:

- .1 Category A – Narrow rivers and canals where the depth of water is generally less than 1.5 metres.
- .2 Category B – Wider rivers and canals where the depth of water is generally 1.5 metres or more and where the significant wave height could not be expected to exceed 0.6 metres at any time.
- .3 Category C – Tidal rivers and estuaries and large, deep lakes and lochs where the significant wave height could not be expected to exceed 1.2 metres at any time.
- .4 Category D – Tidal rivers and estuaries where the significant wave height could not be expected to exceed 2.0 metres at any time.

3. MARPOL Annex VI

3.1 MARPOL is the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocols of 1978 and 1997. Annex VI of MARPOL addresses the prevention of air pollution from ships.

3.2 Annex VI of MARPOL is implemented by the Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2008 (SI 2008/2924). These regulations define a ship as follows:

“ship” means a vessel of any type whatsoever, including a hydrofoil boat, an air-cushion vehicle, a submersible, a floating craft and a platform, which is operating in the marine environment –

- a) *beyond the limits of waters in categories A and B, or*
- b) *in waters in Category C, but excluding deep lakes and lochs where the significant wave height (calculated as four times the square root of the area under the wave energy spectrum) could not be expected to exceed 1.2 metres at any time.*

In addition, the “sea” is defined as

any estuary or arm of the sea

3.3 Therefore, the legislation clearly defines the geographical extent of application of the regulations to include tidal Category C, and D waters. This is logical in the context that sea-going ships coming into port are most likely to do so on a Category C or D inland waterway. Category A and B waterways are specifically excluded from the legislation.



4. Non-Road Mobile Machinery Regulation

- 4.1 The Non-Road Mobile Machinery Regulation (“the NRMM Regulation”) – Regulation (EU) 2016/1628, deals with measures concerning the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery. It encompasses a wide range of machinery types, of which engines installed on inland waterway vessels form only a small part of its scope.
- 4.2 The NRMM Regulation is given effect by the Non-Road Mobile Machinery (Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018 (SI 2018/764) (“the 2018 Regulations”). The NRMM Regulation is a “placing on the market” regulation which applies an engine certification process before it can be put on the market for sale. It does not impose any new requirements on existing engines that have already been made available in the European Union as well as the UK and only applies to engines on existing vessels if an engine is replaced with one that is new. The 2018 Regulations correctly reflect the NRMM Regulation in that they do not limit the geographical extent to the use of the engine as the UK legislation implementing MARPOL Annex VI does.
- 4.3 Regulation 2(2) of the 2018 Regulations relies on the definitions contained within Article 3 of the NRMM Regulation. As such, Article 3(34) applies the NRMM Regulation to inland waterway vessels as meaning “*craft falling within the scope of Directive (EU) 2016/1629*”. Furthermore, Article 2(e) states that the NRMM Regulation “*does not apply to sea-going vessels requiring a valid maritime navigation or safety certificate*”.

5. Inland Waterway Directive

- 5.1 Directive (EU) 2016/1629 – Laying down Technical Requirements for Inland Waterway Vessels (“the Inland Waterway Directive”) is implemented in the United Kingdom by the Merchant Shipping (Technical Requirements for Inland Waterway Vessels) Regulations 2010, amended by the Merchant Shipping (Technical Requirements for Inland Waterway Vessels) (Amendment) Regulations 2019 (“the 2019 Regulations”), and the Merchant Shipping (Technical Requirements for Inland Waterway Vessels) (Amendment) Regulations 2020 (“the 2020 Regulations”).
- 5.2 The 2019 Regulations also implemented the technical standard underpinning the Directive (ES-TRIN 2017/1). The 2020 Regulations replaced ES-TRIN 2017/1 with ES-TRIN 2019/1. The ES-TRIN standard, at Chapter 9, applies the requirements of the NRMM Regulation to inland waterway vessels¹.
- 5.3 As noted in paragraph 4.3 above, the NRMM Regulation defines inland waterway vessels as those that come within the scope of the Inland Waterway Directive. Annex 1 of the Inland Waterway Directive lists all European inland waterways, as so defined, and replicated at the time of publication the list of UK inland waterways from MSN 1837. Included in Annex 1 are all of the UK’s Category C waterways, irrespective of being tidal or non-tidal.

6. Recreational Craft Directive

- 6.1 The Recreational Craft Directive (RCD) – Directive 2013/53/EU applies to recreational craft between 2.5m and 24m length. The RCD is implemented in the UK by the Recreational Craft

¹ <https://www.cesni.eu/en/documents/es-trin-2019/>



Regulations 2017 (SI 2017/737). Propulsion engines which are installed or specifically intended for installation on a recreational craft are encompassed within the scope of the RCD. Such craft can operate on both inland waterways and to sea. As with the NRMM Regulation, this is a “placing on the market” regime and therefore does not limit the area of operation of the craft to tidal waters, as the MARPOL Annex VI (and UK legislation) requirements do for sea-going vessels. Recreational craft placed on the market or put into service are expected to have engines which comply with the requirements of the RCD.

6.2 It should be noted that the NRMM Regulation, in accordance with Article 2(2)(h), does not apply to engines installed on watercraft as defined in Article 3 of the RCD.

7. Policy Implications

7.1 The UK’s approach to implementation of the Inland Waterway Directive has been to make use of the derogation in the Directive which allowed Member States with inland waterways unlinked by inland waterway to those of another Member State to which the Directive applies, to derogate from some or all of the technical requirements of the Directive, or to implement more stringent requirements in certain cases, such as additional provisions for passenger vessels.

7.2 The technical standard underpinning the Inland Waterway Directive was largely based on commercial vessels operating on the larger inland waterways of mainland Europe, in particular freight-carrying vessels on the Rhine. The United Kingdom does not have a similar network of waterways and the requirements for the most part are considered to be not commensurate with the scale of the sector in the United Kingdom.

7.3 Therefore, the approach taken by the United Kingdom in implementing the Inland Waterway Directive was to implement it in full, but then derogate from its requirements any United Kingdom vessels which remain solely within the United Kingdom. The full terms of the derogation are set out in MSN 1879 Amendment 1, Annex 3. More stringent requirements for passenger vessels to ensure a level playing field between United Kingdom passenger vessels and those from any other EU Member State which may come to operate in the United Kingdom are set out in MSN 1879 Amendment 1, Annex 4.

7.4 The question as to whether the engine emission standards in the NRMM Regulation apply to vessels that are exempted from the requirements of Directive (EU) 2016/1629, such as craft operating on non-linked waterways, has been considered by the European Committee (CESNI - *Comité Européen pour les Standards dans le domaine de la Navigation Intérieure*) responsible for updating the ES-TRIN standard. The conclusion reached was that the NRMM Regulation standards do apply, and this was because the definition of an inland waterway vessel in Article 3(34) of Regulation (EU) 2016/1628 only refers to the scope of Directive (EU) 2016/1629 and does not take account of any derogations².

7.5 With respect to the NRMM Regulation, although the terms of the derogation (see paragraph 7.3) might be taken to imply that this Regulation does not apply to United Kingdom inland waterway vessels, taking into account the views of CESNI, it is considered that the NRMM Regulation does apply irrespective of the requirements set out in the derogation to inland waterway vessels operating on Category A, B, C and D waterways.

² See https://www.cesni.eu/wp-content/uploads/2018/11/FAQ_Engines_en.pdf



7.6 However, inland waterway vessels only operating on tidal Category C and D with an installed engine rating power of 130 kW or above are subject to the requirements of the Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2008. As the NRMM Regulation applies to engines fitted to inland waterway vessels with a net power of 19 kW and above, it will therefore apply to such vessels operating on tidal Category C and D waters which are below the threshold for compliance with the 2008 Regulations.

7.7 It is recognised that there is overlap in the legislation with respect to vessels operating on tidal Category C and D waters with a power of 130 kW or above. As such, it is considered to be a commercial decision of the operator, taking into account the area of operation of the vessel, as to which engine should be fitted. In this circumstance, compliance with one or the other regulatory regime is expected.

7.8 All the obligations in the EU legislation mentioned in this MGN which have effect in the UK prior to 1st January 2021 are retained in UK law, with any necessary modifications, after the end of the EU Exit implementation period. However, the Government, subject to the approval of Parliament, has the discretion to amend the legislation as it sees fit from 1st January 2021 onwards.

More Information

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