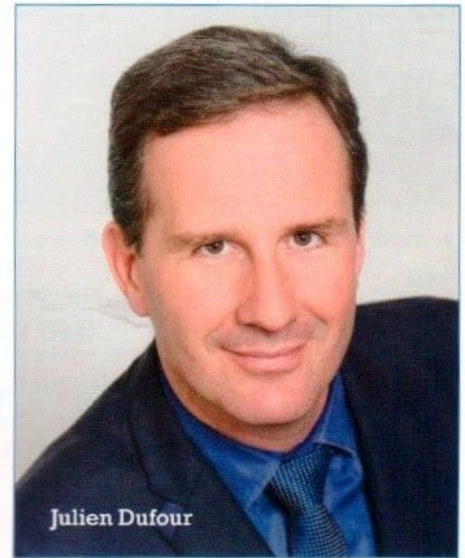


An eye for detail

In August, ship operators will have to submit their monitoring plans in relation to the EU's regulation on the monitoring, reporting and verification of vessel fuel consumption data. As **Julien Dufour** of Verifavia Shipping explains, the task facing owners and accredited verifiers is considerable – but not insurmountable



The shipping industry is no stranger to regulatory deadlines in general, and environmental mandates in particular. The loudest 'noise' in the regulatory space at the moment concerns the introduction of the 0.5% global cap on 1 January 2020. However, another environmental deadline will be reached much earlier – on 31 August this year – when many shipowners whose vessels visit European Union (EU) ports will have to show that they have monitoring plans in place that will comply with the requirements of the EU monitoring, reporting and verification (MRV) regulation.

This regulation – which entered into force on 1 July 2015 and will come into full effect on 1 January 2018, when data collection on each ship journey will begin – only applies to vessels of 5,000 gross tonnes (GT) and above. It will require the monitoring and reporting of verified emissions of carbon dioxide (CO₂) emitted on voyages to, from and between EU ports, and when at berth in EU ports.

Compliance with the regulation will also require the capture and submission of other voyage details, such as distance travelled, time at sea and cargo carried, and this will also be used to determine a vessel's average energy efficiency. All the data will be verified by third party verifiers and then submitted to the European Commission (EC). Aggregated data on ship emissions and efficiency will be published by the EC on an annual basis, beginning on 30 June 2019.

The scale of the task that lies ahead of the verifiers should not be underestimated

– over 3,000 companies and over 12,000 ships will be affected by the implementation of the EU MRV. The verifiers themselves are independent organisations who must be accredited to undertake their MRV responsibilities by national accreditation agencies.

In recent months, verifiers have been receiving their accreditation, and the first accreditation as a global EU MRV verifier was awarded to Paris-headquartered Verifavia on 1 March by the United Kingdom Accreditation Service (UKAS). This will allow the company to assess EU MRV monitoring plans and also verify carbon emission reports to ISO 14065 standard and EU Regulation 2015/757.

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As Julien Dufour, Verifavia's CEO explains, the UKAS 'seal of approval' means that the company can assess or verify any ship that comes within the scope of EU MRV regardless of country of ownership, flag State or class.

The company also gained accreditation from the French national accreditation body, COFRAC, at the end of March.

With the August deadline looming, is the shipping industry on track to complete and submit the all-important monitoring plans which will be the foundation for the work that is to come to achieve compliance with the MRV regulation?

'Nobody likes regulation,' acknowledges Dufour. 'When it comes to regulation, people wait!'

This is certainly true of the shipping sector, which is often markedly reluctant to embrace change. However, while emphasising that there is much to do before August, he has noted a clear upswing in interest in the MRV since the beginning of the year. 'We have re-

quests for quotations or proposals on a daily basis, and the large shipping companies are now starting to organise tenders,' he says.

'Companies are now starting to sign up accreditation contracts with accredited verifiers. We have been engaged by several companies already for legal monitoring plans and audits, and we are now work-



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ing with a number of shipping firms, including Norden in Denmark, Viking Line in Finland, and Broon in the Netherlands.

As well as the accuracy of information submitted, the uniformity of data presentation is also important. As such, a template for the monitoring plan (plus a template for future emissions reporting) was contained in draft delegated and implementing acts published in 2016, and so everything is now in place for companies to prepare their monitoring plans and for verifiers to begin assessing those plans.

The IT systems used to collect the emissions information and other categories of data will also be certified by the verifiers. Dufour says that Verifavia has certified four systems to date – those of Dynamarine, SETEL Hellas, Viswa Lab and Krohne Marine. And another six are under review – Kyma, Marorka, Storm Geo, ABB, We4Sea and Veson Nautical.

'We test the systems to ensure they can collect the required EU MRV data,' says Dufour. 'We see if they can calculate consumption as per methods a, b and c; handle the various types of ships; identify voyages; and generate the EU MRV reports in the correct way.'

While the amount and detail of the information to be collated may be daunting, Dufour believes that the preparation of the monitoring plan is relatively straightforward.

'Most of procedures already exist,' he suggests. 'They are either documented in safety management or environmental management systems, or other documented quality procedures.'

'And while some of the procedures might not be documented, they do exist in practice.'

Speaking to Dufour, it appears that, to a significant degree, shipowners may already be collecting the information required by the EU MRV but it is the collation and presentation of the data which requires a different approach.

'There may be a need to ensure that existing procedures are relevant to MRV,' he said.

'For example, there may be some challenges in the alignment of IT systems, especially with regards to the issue of berth to berth information.'

'With the EU MRV, shipowners have to monitor fuel consumption and time at sea from berth to berth, whereas the general practice in the maritime industry is to monitor fuel consumption from the start to the end of the sea passage.'

Another issue which will be new for shipowners is the monitoring of vessel fuel consumption whilst in a port; this is not standard practice in the shipping industry.

Similarly, Dufour highlights that the defi- ►

nition of a voyage under EU MRV is different from usual shipping practice, and care is needed over identifying ports of call as well as the individual elements of voyages.

'In general, in shipping a voyage is a combination of a ballast leg and a land leg, whereas with MRV there is not this difference – a voyage is a trip between two consecutive points of call, and the point of call is where the ship stops to unload/load cargo or pick up passengers.'

Plugging any data gaps and entering the required data with care and accuracy will be key to MRV compliance.

According to the EU regulation, there are four methods of ascertaining fuel consumption: the bunker delivery note (BDN) and periodic stock takes of fuel tanks; onboard tank fuel monitoring; the use of flow meter readings; and the direct measurement of CO₂ emissions.

Dufour believes that the first three methods will be the most commonly used ways of collecting this data, in descending order of preference. The last method, CO₂ emissions measurement, does not currently exist, he points out.

'There is no equipment at the moment that can directly measure CO₂ emissions – although there might be in the future.'

Of course, while the shipping industry is about to embark on the first stages of compliance with the EU MRV regulation, this unilateral mandate has now been joined by an, as yet, embryonic global counterpart.

The EU pressed ahead with its regional regulation possibly in some measure to spur the International Maritime Organization (IMO) into taking action on CO₂ emissions on a global basis. At MEPC 70 last October, the IMO did indeed respond, although its outline proposal for a fuel consumption data collection system does not mirror the EU programme.

The IMO is adopting a three-step approach to the issue, which will involve data collection, followed by data analysis, the results of which could be used as the basis for future policy decision on further measures, such as the introduction of a carbon offsetting scheme, an emissions credit scheme or a tax levy. The requirement for fuel consumption data collection has been included as an amendment to Chapter 4 of MARPOL Annex VI. According to the IMO's timeline, these amendments are expected to enter into force on 1 March 2018, and ships above 5,000 GT would then begin the collection of data and reporting to an IMO database from the start of 2019.

There are a number of differences between the EU and IMO reporting systems;

the IMO approach, for example, will include proxies for transport work, according to the methodology outlined in the Ship Energy Efficiency Management Plan (SEEMP). And one notable difference between the two schemes is that the IMO's does not require the independent verification of fuel data.

While the IMO has, at last, taken the first steps in developing a global mechanism for assessing shipping's carbon emissions, it will lag behind the EU in its implementation by a year. The EU has always acknowledged that a global MRV system would be the preferred option and has stated that once agreement on a global system has been achieved it would then look at how the EU system could be aligned with it.

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There is little doubt that the IMO will find it difficult to gain consensus on how the final stage of its three-step approach should be resolved – the need for, and specification of, 'further measures.'

Dufour says that he expects the IMO and the EU systems could run in parallel for at least five years, and he believes it will take 'many years' for the IMO to agree on a market-based measure.

'The objective of the EU is not just to have a data collection system; its objective is to have a market-based measure for international shipping emissions.'

'There might be some kind of alignment between the two systems but the EU will keep the MRV as a tool to force the IMO to move forward with the implementation not only of the data collection system but with the next step – the market based measure.'

Dufour also points out that 'the EU MRV is a pre-requisite for including shipping into the EU Emissions Trading Scheme (ETS).'

Without doubt, momentum is clearly gathering within the EU for the inclusion of shipping in the EU ETS. A recent European Parliament plenary voted in favour of such a move, with Jos Delbeke, the head of the European Commission's climate change department calling the result of the vote 'a clear signal that work

on a global objective isn't going fast enough.'

Should shipping eventually be included in the EU ETS, ship operators would have to buy ETS emissions allowances from 2023 or contribute a corresponding amount to a new Maritime Climate Fund – unless, of course, the IMO has agreed on a measure to regulate shipping emissions by then.

All these 'possibilities' are some way ahead, however, and, for now, key milestones for the EU MRV are near at hand. Fuel data collection begins on 1 January 2018, and it will then be the job of the verifiers to check the data in Q1 2019.

'We have a set of rules to follow to verify an emission report,' explains Dufour.

'It's quite a straightforward audit, ensur-

ing that the data is accurate and complete, doing some data sampling, and cross-checking against source records – it should take from a few hours up to a day per ship.'

In the run-up to August this year, Dufour has two clear messages, the first of which is that 'shipowners should not wait until the last minute because the regulation is already in force.'

'It's better to start now – it's a regulatory requirement. Nobody likes regulatory requirements, but you have to do it – there will be penalties and expulsion orders, so it is better to do it in a relaxed way now instead of rushing the process at the last minute.'

Penalties for non-compliance with the regulation will be determined by each Member State; to date, only the United Kingdom has put out a penalty regime for public consultation.

Dufour's second message is a positive one: '[EU MRV] is not that a big a deal. Everyone thinks it is very complicated because it is a regulation and a legal text but, honestly, it isn't – it's not rocket science!'

 Julien Dufour,
CEO,
Verifavia Shipping

 Web: www.verifavia.com