

Implementation of Shipping MRV Regulation

Verification Procedures and Accreditation of Verifiers

7 July 2015

Agenda

I Verification procedures

1. Competencies of verifiers
2. Assessment of the conformity of the monitoring plan
3. Risk assessment to be carried out by verifier
4. Documents to be provided by companies to verifiers

II Accreditation of verifiers

5. Scope of accreditation
6. Accreditation request
7. Requirements for national accreditation bodies to provide accreditation to verifiers for shipping activities
8. Assessment of verifiers by National Accreditation Bodies in order to issue an accreditation certificate



I Verification Procedures

1 Competencies of verifiers (1/4)

Elements to be addressed:

- **Competencies** for each role within the verification team (lead auditor, auditor, technical expert, auditor undertaking site visits)
- Assignment of an **independent reviewer**

Rules:

- could be largely **built upon existing requirements** on competencies of verifiers as set out in the **AVR** and the AVR Key Guidance note No. II 7



1 Competencies of verifiers (2/4)

Based on competence requirements in the AVR and the AVR Key Guidance note No. II 7:

- General & specific **competence criteria**
- A **process** :
 - to ensure **continued competence** and regular evaluation
 - to ensure **ongoing training** of personnel
 - to determine whether the verification agreement falls **within the scope of the verifier's accreditation**

New elements:

- Competencies **specific to the maritime sector**
- **Competencies with regard to the assessment of a monitoring plan** against the EU MRV Regulation

1 Competencies of verifiers (3/4)

Competencies specific to shipping:

Examples of technical competence and understanding

- Interpretation of a Bunker Delivery Note (BDN);
- Interpretation of operational logs, voyage abstract and port abstract, ship deck log;
- Commercial documentation e.g. charter party agreements, bill of lading etc;
- Existing statutory requirements;
- Emission sources;
- Determination of a fuel's carbon content;
- Determine fuel consumption according to methods A to D;
- Emission factors for all fuels, including LNG, hybrid fuels, biofuels etc.;
- Bunkering systems, maintenance of metering equipment;
- Determine cargo (in volume or mass);
- Determine the fuel density;
- Health and safety and security aspects if doing on board visits.

1 Competencies of verifiers (4/4)

Questions for discussion



- 1) Are all required competencies listed, e.g. for assessing whether Monitoring Plans meet the criteria of the regulations? Language criteria, capacity criteria?***

- 2) Are there specific legal implications to be considered regarding the role of the verifiers?***

- 3) How should verifiers demonstrate to possess the required competencies?***

2 Assessment of the conformity of the monitoring plan (MP) (1/6)

Verifier's responsibility to determine compliance of the monitoring plan (MP) with the EU MRV Regulation

Activities to be performed:

- Check on the **completeness** of the MP
- Determine if **each mandatory item** of the MP fulfills EU MRV requirements
- **Consistency check** between latest and current version of the MP in case of re-assessment



2 Assessment of the conformity of the monitoring plan (MP) (2/6)

Elements for consideration:

- **Art. 6 EU MRV Regulation: list of elements that at least should be addressed in the MP** → clear guidance for the elements to verify to assess completeness
- **Competencies with regard to the assessment of the MP** → Knowledge and understanding of, for example:
 - › EU MRV Regulation including Annex I, II and III
 - › ISO 14064 and ISO 14065
 - › Other relevant legislation (MARPOL Annex VI, NO_x Technical Code, Sulphur Oxides Regulation, and Fuel Oil Quality Regulation)
 - › Other relevant guidance (SEEMP)
 - › Templates
- **Verifier's responsibility for assessing the MP** → potential issues:
 - › Threat of self-review
 - › Time allocation
 - › Minimum set of procedures to be carried out by the verifier

2 Assessment of the conformity of the MP (3/6)

Options with regard to the identified potential issues

1) Threat of self-review

	Description	Considerations
Option 1	No further rules	No rules to reduce the risk of self-review
Option 2	Rules will be specified: <ul style="list-style-type: none">• Clear distinction between advisory and assurance work (refer to EN ISO 14065)• Qualified Review (by individual outside verification team)• Clear description of services provided in engagement letter• Source data only provided by shipping company	Safeguards in place to mitigate risk of self-review

2 Assessment of the conformity of the MP (4/6)

Options with regard to the identified potential issues

2) Monitoring Plan Assessment Procedures

	Description	Considerations
Option 1	No further rules → Verifiers determine procedures	<ul style="list-style-type: none">• Most efficient way of monitoring• Does not address minimum requirements → could lead to a lower quality of work by the verifier
Option 2	Additional rules to address the assertions (completeness, relevance and compliance with the EU MRV Regulation) that have to be fulfilled	<ul style="list-style-type: none">• Most important aspects of assessing the MP are executed• Does not provide a predetermined list of procedures
Option 3	A specific set of procedures that have to be carried out and documented by the verifier when assessing the MP	<ul style="list-style-type: none">• All verifiers execute the same procedures• High quality of the audit• Relatively high audit costs

2 Assessment of the conformity of the MP (5/6)

Options with regard to the identified potential issues

3) Time allocation

	Description	Considerations
Option 1	No further rules	<ul style="list-style-type: none">• Market mechanism safeguarded
Option 2	Clause in the verification contract to charge additional time if necessary (e.g. for re-auditing the MP)	<ul style="list-style-type: none">• Market mechanism safeguarded• Additional time for the audit to be charged
Option 3	Additional rules that specify time to be spent & charged for the audit	<ul style="list-style-type: none">• Assures certain level of quality• Impact on market mechanism• Higher prices for the audit compared to option 1 and 2

2 Assessment of the conformity of the MP (6/6)

Questions for discussion



1) Are there any other appropriate options for each of the three elements under consideration?

2) Are there other issues that could arise and need to be addressed?

3 Risk assessment to be carried out by verifiers (1/4)

Elements for consideration:

- **Risk assessment to be carried out on a ship level** by the verifier → relatively **complex** (large variety of fuel systems, variety in ship manufacturers and length of routes sailed)
- Verifying shipping data against **reliable external sources** (e.g. in relation to monitoring movements of ships):
 - **Uncertainty of AIS tracking data** & costs of access to AIS data
 - **Other ship tracking sources** concern: Port Calls, LRIT (long-range identification & tracking), non-commercial sources (if previously authorized by the data owners), terrestrial AIS tracking systems etc.
- How to achieve a certain level of **standardization in the execution of the risk assessment?**

3 Risk assessment to be carried out by verifiers (2/4)

Rules to mitigate identified issues:

- Identification of potential risks related to the monitoring and reporting process by **comparing reported CO2 emissions with estimated data based on ship tracking data and characteristics** such as the installed engine power
- Where significant deviations are found → the verifier shall carry out **further analyses**
- In order to achieve a **certain level of standardization in the execution of the risk assessment** by the verifiers rules are required:
 - EU ETS Regulation Key guidance note no. II.2 identifies five steps that the verifiers need to execute during the risk assessment → could form the basis for the risk assessment for shipping
 - Additional rules for the decision **whether or not to execute a site visit**, and if a site visit is required on board or at the office of the company

3 Risk assessment to be carried out by verifiers (3/4)

Options with regard to risk management

	Description	Considerations
Option 1	No rules → leave to the discretion of the verifier how to execute the risk assessment	No standardised risk assessment
Option 2	Basic framework for executing the risk assessment on an individual ship basis and that will be in line with EU ETS Key guidance note no. II.2	<ul style="list-style-type: none"> • More standardised risk assessment than in option 1
Option 3	Option 2 + additional guidance about carrying out the risk assessment with regard to site visits	<ul style="list-style-type: none"> • The highest level of standardization compared to option 1 and 2 • More transparency with shipping companies about necessity of site visit and associated costs

3 Risk assessment to be carried out by verifiers (4/4)

Questions for discussion



1) Would you envisage other possible options and/or issues to be addressed with regard to performing the risk assessment?

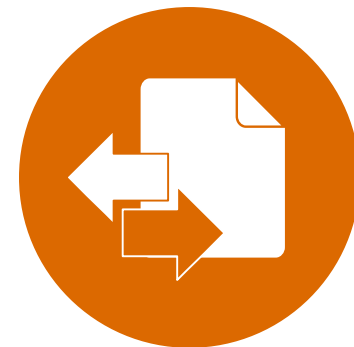
2) What documentation will be expected from verifiers in carrying out risk assessments?

3) What would be needed to enable the use of ship tracking data?

4 Documents to be provided by companies to verifiers (1/6)

Overview of the documents to be provided:

- (Modified) Monitoring plan
- Emission report
- Bunkering documents (Bunker Delivery Notes, BDN summaries)
- Oil Record book (copies of relevant sections)
- Detailed documentation per ship for each voyage (distance sailed, port calls, cargo transported)
- Log books (copies of relevant sections)
- Fuel invoices
- Copies of Weather Routing Systems
- Emissions monitoring equipment data
- Maintenance / calibration records for flow meters



4 Documents to be provided by companies to verifiers (2/6)

Rules to address and mitigate the identified issues:

- concerning **where and which documents will need to be retained** (dependent on monitoring methodology and type of document)
- concerning the **retention period** of documents
- concerning the **back-up documentation** in case data sources are lost
- concerning **requests from verifiers for additional documents** that do not contain data points but are considered by the verifier as valuable or important in the process of verification of the emission report or assessment of the MP

4 Documents to be provided by companies to verifiers (3/6)

Options to be considered

1) Onboard vs. Office:

Elements to consider	Options	Considerations
Documents are not available at the (head) office (e.g. on board original)	Option 1: Shipping companies will be allowed to determine in which place documents will be retained	<ul style="list-style-type: none">• Originals• Higher verification costs
	Option 2: Require shipping companies to have at least a copy of the documents listed above in the office for verification purposes	<ul style="list-style-type: none">• No site-visit onboard required• Copies instead of originals

4 Documents to be provided by companies to verifiers (4/6)

Options to be considered

2) Retention Period:

Elements to consider	Options	Considerations
Documents have not been retained by the shipping company	Option 1: Retention period for documents as set by international maritime laws (three years for most documents listed)	<ul style="list-style-type: none">• No impact on the administrative burden and costs for shipping companies• Relatively short retention period of 3 years
	Option 2: Retention period will deviate from the international maritime laws (e.g. will be set at 10 years as is the case for EU ETS)	<ul style="list-style-type: none">• EU ETS conform (10 years)• Additional costs for shipping companies

4 Documents to be provided by companies to verifiers (5/6)

Options to be considered

3) Loss of documents:

Elements to consider	Options	Considerations
Documents were lost by the shipping company	Prescribing shipping companies to identify secondary data sources	<ul style="list-style-type: none">• Same data points as primary data source

4 Documents to be provided by companies to verifiers (6/6)

Questions for discussion



- 1) Is the list of documents to be provided by companies to verifiers complete?***
- 2) Would you envisage other possible options concerning the location and duration of the retention period of documents relevant for the verification activities?***
- 3) Would additional rules regarding the loss of documents be necessary?***
- 4) In case the ship had been chartered, the invoices are with the charterer and not the shipping company. Would it be feasible to ensure in those cases that copies of invoices are shared with shipping company?***

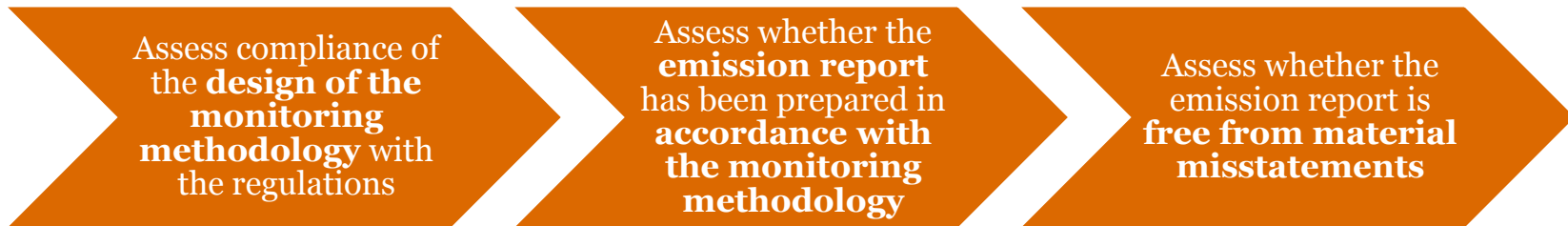


II Accreditation of Verifiers

5 Scope of accreditation (1/5)

Dual role of verifiers

Elements for consideration:



Potential risk of conflict of interests: one single party assessing the monitoring methodology (influence on reporting criteria) and providing assurance on the emissions report (verify against reporting criteria) → e.g. no segregation of duties



Rules are needed for:

- **formal process of assessing MPs**
- **competence requirements** of verifiers
- competence requirements of national accreditation bodies (NABs)

5 Scope of accreditation (2/5)

Dual role of verifiers

	Description	Considerations
Option 1	One single accreditation activity for both assessing the MP and carrying out verification of the emissions report (ER)	Potential issue of self-review
Option 2	Two accreditation activities and two different verifiers required: one for the assessment of the MP and one for the verification of the ER	<ul style="list-style-type: none">• This would solve issue of self-review & mitigate risks of reduced independence by the verifier• Less efficient and more costly for shipping companies
Option 3	Two separate accreditation activities (for assessing the MP and carrying out the verification of the ER) that can be performed by the same verifier , together with clear rules on how to perform the (re-)assessment of the MP	Leaves out room for interpretation and safeguards independence and impartiality of the verifier

5 Scope of accreditation (3/5)

Accreditation sub-scope of GHG emissions verification

Elements for consideration:

- **Monitoring emissions for MRV based on four different methods**
- **Verifiers accredited for all methods and types of vessels?**
- Most common and well-known international standard for GHG emissions verification is ISO 14065
- **Need for rules on separate accreditation scopes** for different monitoring methods

5 Scope of accreditation (4/5)

Accreditation sub-scope of GHG emissions verification

	Description
Option 1	One single accreditation for all monitoring methods and all types of vessels
Option 2	One single accreditation for all monitoring methods and separate accreditation for different types of vessels
Option 3	Accreditation separate per monitoring method and one single accreditation for all types of vessels
Option 4	Accreditation separate per monitoring method and separate per type of vessel

Option 1 and 3 avoid adding too much complexity to the system

5 Scope of accreditation (5/5)

Questions for discussion



Would you envisage other options concerning how to address the risks related to the dual role of the verifier under the EU MRV Regulation?

6 Accreditation request (1/2)

Elements for consideration:

- EU based verifiers are allocated to the NABs in which they are based
- Non-EU verifiers need to be allocated to an EU NAB
- Rules should be defined for the allocation of non-EU based verifiers to an EU NAB

Rules should be defined for the allocation of non-EU based verifiers to an EU NAB

Options:

	Description
Option 1	Allocation of non-EU verifiers to EU NAB could be done on the basis of the largest share in client portfolio
Option 2	Non-EU Verifiers are allowed to choose freely an EU NAB

6 Accreditation request (2/2)

Questions for discussion



Shall verifiers choose the NAB or would a different way of allocating verifiers to NABs be desirable?

7 Requirements for national accreditation bodies to provide accreditation to verifiers for shipping activities (1/3)

NABs should have the following two main sector specific requirements:

- **Knowledge of the EU MRV Regulation**, relevant standards and other legislation as well as applicable guidelines published by the Commission
- **Knowledge of auditing relevant data** and information and related verification activities

Elements for consideration

- Not all NABs will have the relevant expertise in-house or **do not have sufficient resources** and verification bodies to witness to develop the relevant expertise
- **Some NABs are small** and the volume of maritime activities differs among MS
- **Ensure that NABs will take the necessary steps to build up the relevant expertise** → take into account the AVR Key guidance note no. II.9 (EU ETS) on specific competencies of the members of an assessment team from NABs

7 Requirements for national accreditation bodies to provide accreditation to verifiers for shipping activities (2/3)

NABs need to understand...

... all requirements for the maritime MRV system in detail in order to be able to accredit verifiers

... the requirements and risks related to the assessment of MPs and verification of ERs

... the characteristics of different types of vessels and the different monitoring methods for these types of vessels.

NABs need to **build capacity, knowledge, experience** and resources to successfully accredit verifiers for the maritime sector

NABs **could train their own staff to obtain the required competence** or make use of (sector) specialists when performing accreditation activities

7 Requirements for national accreditation bodies to provide accreditation to verifiers for shipping activities (3/3)



Are there other competencies needed for NABs in order to perform accreditation according to the EU MRV Regulation?

8 Assessment of verifiers by NABs in order to issue an accreditation certificate (1/4)

Elements for consideration:

- According to the Accreditation Regulation (EC 2008/765), an assessment by a National Accreditation Body is needed in order to issue an accreditation certificate to a verifier
- **Office and witness visits** to accredit verifiers are deemed necessary and relevant
- **Performing witness visits outside the EU** will also be possible, if for the verification the verifier needs to perform a site visit on a ship at the moment not located in the Member State of residence of the NAB or outside the EU
- **Accreditation certificate** will be provided with a limited validity period (In practice, the validity period of accreditation certificates for EU ETS greenhouse gas emissions verification ranges between 4 to 5 years validity depending on the NAB)

8 Assessment of verifiers by NABs in order to issue an accreditation certificate (2/4)

Validity of accreditation certificate

	Description
Option 1	Accreditation certificates could be given a validity period with a maximum of five years.
Option 2	NABs would be given the choice of a validity period.
Option 3	A relatively short first validity period , as the system is new, and then extended after re-assessment.

8 Assessment of verifiers by NABs in order to issue an accreditation certificate (3/4)

Witness visits

- Rules should be established for the approach towards **office visits** and **witness visits** in the process of **providing accreditation certificates**
- NABs could ask other EU NABs to perform the witness visits on their behalf. A potential option would be to organize witness visits via videoconference or similar technical solutions

8 Assessment of verifiers by NABs in order to issue an accreditation certificate (4/4)



Could you envisage other options concerning the witness visits?

Thank you for your input

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