

Implementation of Shipping MRV Regulation

European Sustainable Shipping Forum
Subgroup on Shipping MRV Monitoring

Monitoring Plan

27th October 2015

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1. Background

Assurance Principles Conform IAASB standard

- 1) Does the engagement require a form of assurance, i.e. opinion?
- 2) Is there a three-party relationship? (Verifier, operator, intended user?)
- 3) Is there a clear subject matter and suitable criteria to measure the subject matter against?**
- 4) Will there be a written report about our conclusions /opinion?

A YES to all these questions means that there is an assurance engagement to be performed.

The monitoring plan, in addition to the MRV rules provides the suitable criteria.

1. Background

Scope and Purpose of the Monitoring Plan

1) **Monitoring Plan = fundamental document:** The MP lays down the detailed monitoring rules to be followed when monitoring the CO₂ emissions and other relevant information data **tailored per ship.**

2) **MP need to reflect the nature and functioning of the ship.**



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A good description of the installation and where emissions exactly come from provides the verifier with sufficient information to **perform a risk analysis.**

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The risk analysis performed by the verifier determines the **verification approach (nature and depth of reasonable assurance verification activities).**

1. Background

Scope and Purpose of the Monitoring Plan

3) Monitoring Plans serve as **manuals for the ship operators' tasks** with respect to monitoring and reporting of CO₂ emissions.

4) Monitoring Plans should be developed in a manner which limits the onboard administrative burden to the minimum necessary. However, by drafting the structure of a Monitoring Plan, one has to weigh up:

The level of detail of information in the MP

against

Practical monitoring methodologies and workflows.

1. Background

Content

A detailed MP contains essential background information on monitoring and reporting.

The elements of Monitoring Plans include among others:

- Description of the installation and the data flow
- Data collection (metering data, BDNs, voyage logs, etc.);
- Description of calculations and formulae to be used, data consolidation and aggregation;
- Data Gap Procedures;
- Control activities and internal control environment, ensuring accurate and reliable data in the emission report
- Responsibilities, systems and procedures in place to safeguard the completeness and accuracy of data aggregated and reported;

Etc.

Requirements are listed in Article 6 MRV Regulation.

1. Background

Level of detail of Monitoring Plans

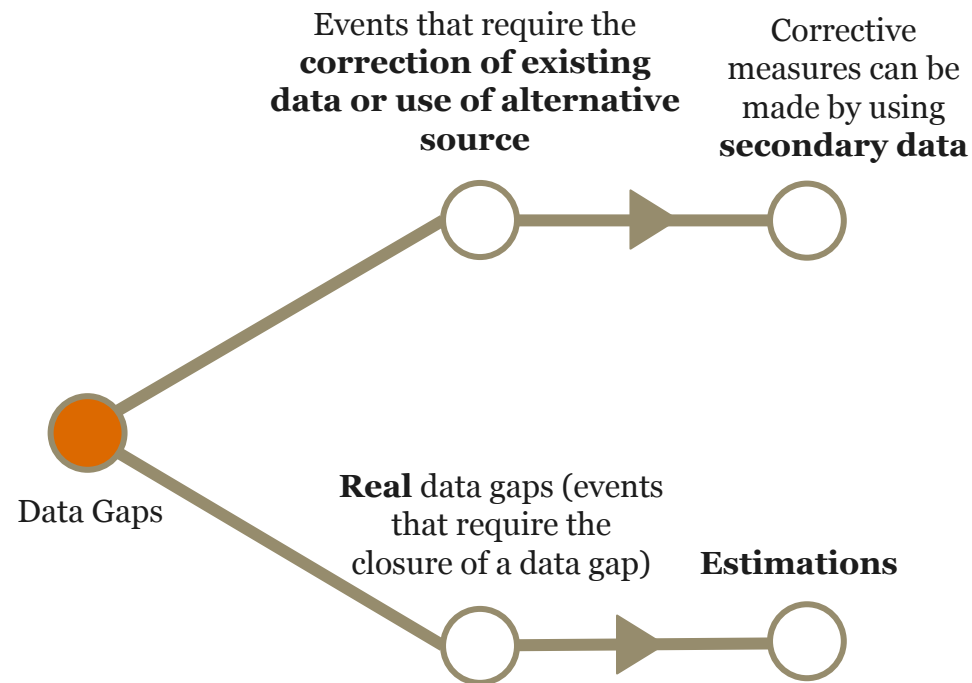
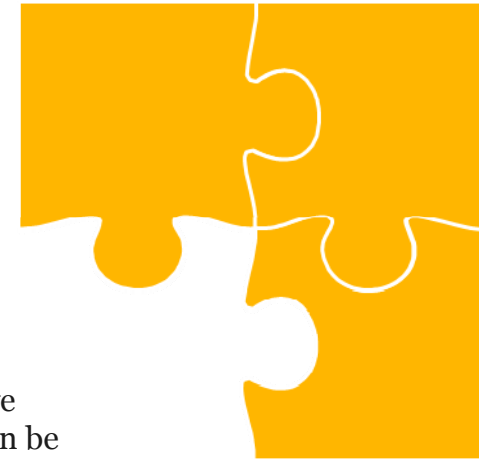
Risk of having a Monitoring Plan that contains too little information on work flows, procedures, responsibilities etc.:

- The annual verification of the emission reports may require **more time and effort for the shipping company and the verifier** than expected.
→ **A detailed Monitoring Plan** that contains essential background information on monitoring and reporting helps the verifier to get a better understanding of the data flows and (control) procedures prior to the verification (on-site). → May save valuable time during the audit for both parties, the shipping company and the verifier.
- In case of a change in the shipping company with regard to the responsibility for MRV reporting (e.g. new employee, new owner etc.) or in case of a change of the verifier, **valuable information** related to data and work flows **that has been extensively discussed during the first verification gets lost** → A more detailed Monitoring Plan provides information that is readily available for both parties, the shipping company and the verifier.

2. Data Gaps

Definition

If data relevant for the determination of ship emissions is **missing** → operator shall use surrogate data **calculated in accordance with an alternative method**.



2. Data Gaps

Method to be used to estimate fuel consumption

In the case of data gaps regarding fuel consumption of individual ships in a specific period of time, the following **calculation method for fuel consumption may be appropriate**:

*Fuel consumption in time period = Σ (Specific fuel consumption of main engines per hour at 75% load) * (24 h operation) * (number of days in period).*

Alternatively, methodologies applied and described in the 2nd and 3rd IMO GHG studies could be applied.

2. Data Gaps

Method to be used to treat data gaps of other parameters

Shipping companies will be asked to provide a **brief description of the method** to treat data gaps regarding the **other parameters** than fuel consumption (i.e. list of voyages, distance, total time spent at sea, cargo carried, number of passengers) if applicable. It should include a **back-up solution for each parameter**.



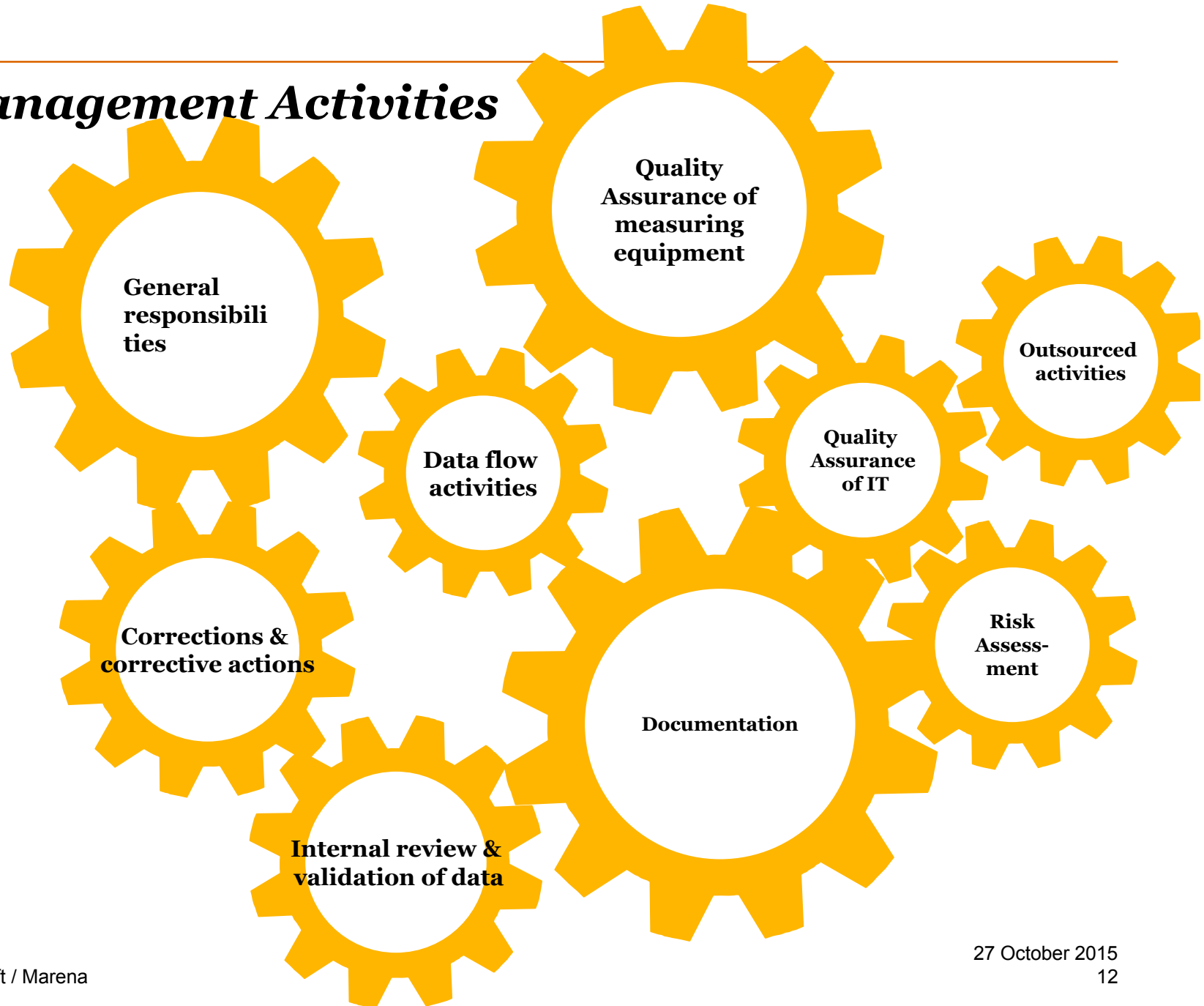
2. Data Gaps

Questions for discussion




- *Should a formula be offered in the template and if yes, which one(s)?*
- *What are best practices for treating data gaps with regard to the estimation of fuel consumption?*
- *Is the suggested data gap method : Fuel consumption in time period = \sum (Specific fuel consumption of main engines per hour at 75% load) * (24 h operation) * (number of days in period) a method to consider?*
- *What are best practices for treating data gaps with regard to the estimation of other parameters than fuel consumption (i.e. distance, cargo carried etc.)?*

3. Management Activities



3. Management Activities

Questions for discussion

 *Is the level of detail adequate for MRV purposes?*
Any additional items needed?

Thank you for your input

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