Supplementary appendix – Reference scheme/program: Verification of monitoring plan and verification of emission report in accordance with Regulation (EU) 2015/757 (MRV)

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CHAPTER 1 - GENERAL

This appendix defines the procedures applied by RINA for verification activities and the methods to be followed by interested parties in order to request and obtain verification of the verification scheme of the Monitoring Plan and Ship Emission Report according to Regulation (EU) 2015/757 (MRV), with respect to what is already defined in the General Rules for the validation and verification activities of information declared in claims.

This appendix defines the procedures applied by RINA for the
- verification of the monitoring plan in accordance with the requirements established in articles 6 and 7 of the EU MRV Rules; and
- verification of the annual emission report in accordance with the requirements of Articles 8 to 12 and Annexes I and II of the EU MRV,
pursuant to Directive 2003/87/EC as amended.

The EU Regulation 2015/757 on monitoring, reporting and verification (MRV) of carbon dioxide (CO2) emissions from the maritime transport (known as the EU MRV Regulation) entered into force on 1 July 2015.

MRV is a mandatory monitoring, reporting and verification system established by the European Commission for ships above 5,000 gross tonnage that sail one or more commercial routes (cargo or passengers) to and from EU ports, regardless of their flag.

Warships, naval auxiliary vessels, fishing vessels, wooden vessels of rudimentary construction, vessels without mechanical means of propulsion or government vessels used for non-commercial purposes are excluded from the scope of the EU MRV Regulation.

For each ship, the company must, by 2017 at the latest, prepare a plan for monitoring and reporting carbon dioxide (CO2) emissions and from 2018 onwards monitor and report these emissions for verification from 2019 onwards.

For ships falling under the scope of this Regulation for the first time after 31 August 2017, the company shall submit a monitoring plan to the verifier without undue delay and in any case no later than two months after the first call of each ship in a port under the jurisdiction of a Member State.

The conformity assessment of the ship monitoring plan shall be carried out in accordance with the EU MRV Regulation, Articles 6 and 7, subsequent delegated acts referred to in Article 23 of the same Regulation and any additional elements indicated by the Accreditation Body and the Competent Authority.

Verification of compliance of the annual report on ship emissions shall be carried out in accordance with the EU MRV Regulation, Articles 8 to 12 and Annexes I and II, subsequent delegated acts referred to in Article 23 of that Regulation and any additional elements specified by the accreditation body and the Competent Authority.

CHAPTER 2 – REFERENCE SCHEME/PROGRAM / REQUIREMENTS FOR VALIDATION / VERIFICATION

- Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport and
amending Directive 2009/16/EC.


- ISO 14065:2020 - General principles and requirements for bodies validating and verifying environmental information.


- IAF MD 6 - IAF Mandatory Document for the Application of ISO 14065.

CHAPTER 3 - CONTRACT

3.1 RINA will prepare the offer on the basis of the following information/documents

- name and address of the company (shipowner of the ship or any other organisation or person, such as the manager or bareboat charterer, who has assumed responsibility for the operation of the ship from the shipowner)

- name and address of the client

- name and address of the site (place where the monitoring process is defined and managed, including places where relevant data and information are controlled and stored);

- service required;

- vessel information (type, number by IMO type)

- information on the monitoring and data acquisition system;

- Information on existing certifications; and

- all information reported in the information questionnaire.

3.2 The contract stipulated between RINA and the organisation includes

- a document review of the organisation’s documents (including the strategic and audit risk analysis);

- the collection of sufficient objective evidence on original data/information, ensuring traceability through the data/information management process, further analysis and calculations; the identification of errors and consideration of their relevance; the assessment of compliance with requirements (also by means of field visits/site assessments and telephone or remote interviews);

CHAPTER 4 - PLANNING

4.1 Together with or following the validation/verification request, the organisation is to make the following documentation available to RINA
- Verification of the monitoring plan:
  o the monitoring plan
  o relevant documentation
  o description of the ship’s installations, including the certificates of the emission sources, flow meters used (if applicable);
  o procedures and processes or flow charts prepared and maintained outside the plan, if any, referred to in the plan,
  o any information/documents considered relevant to evaluate the plan;
  o any other documents considered important by the team for the evaluation;
  o any other relevant information necessary for the planning and execution of the verification.

- Verification of the annual emissions report
  o a copy of the emissions report;
  o a copy of the monitoring plan(s) applied, together with evidence of the conclusions as a result of the assessment carried out by an accredited verifier, if applicable;
  o a copy of the previous year's emission report, if applicable, if RINA has not verified it;
  o a list of all the voyages made by the ship in question during the reporting period (EU and non-EU)
  o copies of the ship’s official logbook and the ship’s mineral oil record book relating to the voyages sampled
  o copies of the bunkering documents;
  o copies of documents containing information on the number of passengers and quantity of cargo carried, distance travelled and time spent at sea relating to the sampled voyages;
  o procedures referred to in the approved monitoring plan, including those concerning data flow and control activities;
  o other documentation deemed necessary for verification.

**CHAPTER 5 – VALIDATION/VERIFICATION EXECUTION**

- Verification of the monitoring plan:
  The monitoring plan must be based on the template and technical rules for its application determined by the Commission.
  If the monitoring plan is drafted in a language other than English, the company must provide an English translation.
  The selected and communicated team reviews the documents to ensure that they meet the criteria/requirements set out in Articles 6 and 7 of the EU MRV and
  o verify that the company has used the appropriate monitoring plan template and provided information for all mandatory items according to the technical rules determined by the Commission;
  o verify that the information contained in the monitoring plan accurately and comprehensively describes the emission sources and measurement equipment on board the ships, as well as the systems and procedures in place to monitor and report relevant information under the EU MRV Regulation
  o ensure that adequate monitoring arrangements are in place in the event that the company applies for a derogation from the requirement to monitor the ship’s fuel and CO2 emissions 'by route', in accordance with Article 9(2) of the EU MRV Regulation;
  o where appropriate, assess whether the information submitted by the company regarding elements, procedures or controls implemented under existing ship management systems or covered by relevant harmonised quality, environmental protection or management standards are useful for the purposes of monitoring and reporting of CO2 emissions and other relevant information under the EU MRV Regulation and the technical rules determined by the Commission.
Follow-up actions

The team carries out site visits as necessary to gain sufficient knowledge of the procedures outlined in the monitoring plan and to validate the accuracy of the information contained therein.

Site visits are carried out where the critical mass of data is stored, including electronic or hard copies of documents whose originals are kept on board the vessel, and where data flow activities are conducted.

The date of the site visit is agreed sufficiently in advance with the company and officially confirmed at least one week in advance.

Internal Verification Report

Throughout the evaluation process, the team records important aspects of the different phases on the Internal Verification Report.

Any findings are recorded in the section entitled "Management of Findings" and are classified according to the definitions below.

- "non-conformity" means that the plan does not meet the requirements of Articles 6 and 7 of the EU MRV Regulation and of the technical rules determined by the Commission;
- "recommendation", recommendations for improvement.

The Internal Audit Report contains:

- the description of the activities carried out;
- the "Assessment Opinion" section that contains an indication of whether the monitoring plan is judged to comply with the EU MRV Regulation and sufficient information to support the assessment opinion;
- the section "Management of findings" that contains the list of possible findings and the deadline by which the company must make the appropriate corrections so as to allow the team to re-evaluate the plan before the start of the monitoring reporting period.

The team shall transmit to the company any findings that have been identified.

The company shall correct the non-conformities and submit the revised monitoring plan within the agreed deadline.

The team records the findings corrected and taken over by the company in the Internal Audit Report, indicating them as resolved.

The team submits the Internal Verification Report to Independent Review to ensure that the verification process has been carried out in accordance with the European MRV Rules and other criteria/requirements including RINA internal procedures and that due diligence and professional discernment have been applied.

The Independent Reviewer will

- verify the qualifications of the team and the verification timescales;
- confirm the completeness of the verification activities performed and of the documentation sent to the team;
- record the activity performed;
- record any anomalies found.

If the Independent Reviewer considers that changes need to be made in the remarks field of the internal audit report, the team must contact the company in order to have the relevant documents reviewed.

If no substantial anomalies are found or if they have been managed and closed, the independent technical review activity can be considered satisfactorily closed.

RINA sends the company a statement of compliance in accordance with the applicable regulations.

- Verification of the annual emission report
RINA verifies the compliance of the emission report with the requirements of Articles 8 to 12 and Annexes I and II of the EU MRV Rules.

In particular, RINA assesses whether the CO2 emissions and other relevant information included in the emission report have been determined in accordance with Articles 8, 9 and 10 and with the monitoring plan.

**Company site visit**

The team carries out the site visit at the first verification of the company in order to

- familiarise itself with the ships monitoring and reporting systems, including their availability and actual use by the company; and
- assess the correct application of the methodology described in the monitoring plan and verification of the data reported in the emissions report.

The site visit may be omitted from the second verification period if there have been no organisational or operational changes in the company's management of MRV issues compared to what was assessed during the first year reporting period.

PLEASE NOTE: this site visit has nothing to do with the verification of the emission report mentioned in the following paragraph.

**Risk assessment**

RINA adopts a risk-based approach for the verification of the emissions report, in accordance with the EU MRV Regulation and the subsequent delegated acts referred to in Article 23 of the same Regulation.

On the basis of the documents provided by the company, the team performs a risk assessment in order to

- determine the likelihood that a parameter contained in the emissions report is subject to inaccuracies that, individually or as a whole, could be material;
- define the verification methods (e.g. team, site visits, timing, sampling plan).

The team identifies potential risks related to the monitoring and reporting process by comparing declared CO2 emissions with estimated data based on data and location characteristics such as installed engine power. In the case of significant discrepancies, the verifier performs further analysis.

The team identifies potential risks associated with the different calculation steps, reviewing all data sources and methodologies used.

The team takes into account all the risk control methods applied by the company to reduce the levels of uncertainty associated with the specific accuracy of the monitoring methods used.

If necessary, RINA will revise the risk assessment according to the information obtained during the audit.

Based on the results of the risk analysis, the team determines whether a site visit is necessary (or not).

**Subsequent actions**

RINA may dispense with the site visit relating to the verification of the emissions report provided that, based on the outcome of the risk assessment, one of the following conditions is met

- it has sufficient knowledge of the ship's monitoring and reporting systems, in particular, it knows that they exist, are implemented and are effectively operational at the company;
- the nature and level of complexity of the ship's monitoring and reporting system is such that a site visit is not necessary;
- is able to remotely obtain and assess all the required information, including the correct application of the methodology outlined in the monitoring plan and verification of the data reported in the emissions report.

If a site visit is necessary, the team draws up a verification plan describing the different stages of the verification process, the timeframe and the methodologies used. This verification plan is sent...
to the company.
If the verification activity is carried out remotely (off-site), the verification plan sent through the order confirmation is authoritative.
On the basis of the results of the risk analysis, a sampling plan is drawn up establishing the number of trips to be verified with supporting evidence.
The team analyses the documents sent by the company, and in particular
- the existence and correct application of the monitoring and reporting systems and internal control activities illustrated in the monitoring plan declared compliant;
- the completeness of the emission sources illustrated in the monitoring plan;
- the completeness of the data, including data on the routes reported as falling under the scope of the EU MRV Regulation;
- the consistency between reported aggregate data and data from relevant documentation or primary sources;
- the consistency between the aggregated fuel consumption and data on fuel purchased or otherwise supplied to the vessel in question, where applicable;
- the reliability and accuracy of the data.

**Internal Verification Report**
Throughout the verification process, the team records important aspects of the different stages on the Internal Verification Report.
Any findings are recorded in the section entitled “Management of Findings” and are classified according to the definitions below.
- "Misstatement" means an omission, misrepresentation or error in the reported data, except for uncertainty permissible under the EU MRV Regulation and taking into account the guidelines developed by the Commission in this regard;
- "material misstatement" means a misstatement which, in the opinion of RINA, individually or aggregated with others, exceeds the materiality threshold or could affect the total reported emissions or other relevant information
- "non-conformity", if CO2 emissions and other relevant information are not reported in accordance with the monitoring methodology outlined in a declared compliant monitoring plan;
- "material non-conformity" means a non-conformity which, in the opinion of RINA, individually or aggregated with others, exceeds the materiality threshold or could affect the total reported emissions or other relevant information
- "recommendation", recommendation for improvement.
The Internal Verification Report contains
- a description of the activities performed,
- the "Verification Opinion" section that contains an indication of whether the emissions report is found to be compliant with the EU MRV and sufficient information to support the verification opinion;
- the section "Management of findings" which contains the list of any findings and the deadline by which the company must make the appropriate corrections so that the team can reverify the emissions report within the deadlines.
The team shall transmit to the company any findings that have been identified
The company must correct the material misstatements reported by the team and submit the revised emissions report by the agreed deadline.
The team records in the Internal Verification Report, indicating them as resolved, the findings corrected and taken over by the company.
If the company does not correct the non-conformities and inaccuracies it must explain the reasons why.
The team determines whether the uncorrected non-conformities and misstatements, individually or aggregated with others, have an impact on the total reported emissions or other relevant information reported, and whether this impact results in material misstatements.

The team may also consider material misstatements or discrepancies that, individually or aggregated with others, are below the materiality threshold defined by the EU MRV Regulation if this is justified by their magnitude and nature or by the particular circumstances in which they occurred.

The team submits the Internal Verification Report and the documentation supporting the verification opinion to an independent review.

Verification Report
The team prepares the draft Verification Report containing an opinion on the outcome of the verification with a level of assurance that depends on the depth and detail of the verification activities.

The draft Verification Report contains at least the following elements:
- the company name and ship identification;
- a title clearly indicating that it is a Verification Report;
- the identity of RINA;
- the reference to the emissions report and the reporting period under verification;
- the reference to one or more monitoring plan(s) declared compliant;
- the reference to the verification standard(s) used;
- a summary of the procedures followed by the verifier, including information on site visits or the reasons why they were not carried out;
- a summary of significant changes made to the monitoring plan and activity data during the reporting period, if applicable;
- the verification statement;
- a description of any inaccuracies and uncorrected non-conformities, including their nature and extent, whether they have a material impact or not, and the element(s) of the emissions report to which they relate;
- where appropriate, recommendations for improvement.

CHAPTER 6 – DECISION AND ISSUE OF THE VALIDATION/VERIFICATION STATEMENT

The internal audit report and the verification report are subject to independent review to ensure that the verification process has been carried out in accordance with the European MRV Rules and other criteria/requirements including RINA's internal procedures and that due professional diligence and discernment has been applied.

The Independent Reviewer will:
- verify the qualifications of the team and the verification schedule;
- confirm the completeness of the verification activities performed and the relative reports;
- verify the technical accuracy of the verification;
- record any anomalies found.

The independent reviewer also assesses whether the evidence gathered is sufficient to enable the verifier to issue a verification statement with reasonable assurance.

If no substantial anomalies are found or if they have been managed and closed, the independent technical review activity can be considered satisfactorily closed.

RINA informs the organisation in writing of the conclusions it has reached on the verification.

Issue of the Verification Report and validation of the Emissions Report
The Verification Report, dated and authenticated by an authorised person on behalf of RINA, based on the
conclusions reached by the Independent Reviewer, is issued to the company through the Thetis portal.

The Verification Report contains a statement that the Emissions Report is recognised as compliant or, if it contains material misstatements that have not been corrected prior to the issuance of the Verification Report, as non compliant.

If the Emissions Report is recognised as compliant, it is validated through the Thetis portal

Issuance of the Conformity Document

If the Verification Report contains the opinion that the Emission Report is recognised as compliant, RINA issues a Document of Compliance for the ship in question.

The Document of Compliance includes the following information
- the identity of the ship (name, IMO identification number and port of registry or home port)
- the shipowner’s name, address and principal place of business;
- the identity of RINA;
- the date of issue of the Document of Compliance, its period of validity and the relevant reference period.

The Document of Compliance is valid for a period of 18 months from the end of the reference period.

RINA will notify the Commission and the flag State of the ship whether the conditions for issuing the Document of Compliance are fulfilled by using automated systems and data exchange formats, including electronic templates defined by the Commission.

CHAPTER 7 – MODIFICATION AND WITHDRAWAL OF THE STATEMENT

The General Rules for validation and verification activities of information declared in assertions apply

CHAPTER 8 - COMPLAINTS AND APPEALS MANAGEMENT

The General Rules for validation and verification activities of information declared in assertions apply

CHAPTER 9 - CONTRACTUAL CONDITIONS

The General Rules for validation and verification activities of information declared in assertions apply