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2017-03-01	1 od 10	QPmrv5.4.2.1	0	

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1. PURPOSE

The purpose of this procedure is:

- To prescribe the sequence of actions and responsibilities during verification of emissions reports, starting from submission of written request from the Company to CRS Head Office, up to the issue of document of compliance.

The objective of this procedure is:

- To provide verification teams clear understanding of their specific role and duties in the verification process and to ensure verification tasks allocated to them shall be performed in accordance with the requirements of Regulation (EU) 2015/757.

1.1 Definitions

- **‘verifier’** means a legal entity carrying out verification on activities which is accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008 and Regulation (EU) 2015/757;
- **‘verification’** means the activities carried out by a verifier to assess the conformity of the documents transmitted by the company with the requirements of Regulation (EU) 2015/757;
- **‘document of compliance’** means a document specific to a ship, issued to a company by a verifier, which confirms that that ship has complied with the requirements of Regulation (EU) 2015/757 for a specific reporting period;
- **‘other relevant information’** means information related to CO₂ emissions from the consumption of fuels, to transport work and to the energy efficiency of ships, which enables the analysis of emission trends and the assessment of ships' performances;
- **‘voyage’** means any movement of a ship that originates from or terminates in a port of call and that serves the purpose of transporting passengers or cargo for commercial purposes;
- **‘company’** means the shipowner or any other organisation or person, such as the manager or the bareboat charterer, which has assumed the responsibility for the operation of the ship from the shipowner;
- **‘reporting period’** means one calendar year during which CO₂ emissions have to be monitored and reported. For voyages starting and ending in two different calendar years, the monitoring and reporting data shall be accounted under the first calendar year concerned;
- **‘non-conformity’** means for the purpose of verifying an emissions report, that the CO₂ emissions and other relevant information are not reported in line with the monitoring methodology described in a monitoring plan that an accredited verifier has assessed as satisfactory;
- **‘reasonable assurance’** means a high but not absolute level of assurance, expressed positively in the verification statement, as to whether the emissions report subject to verification is free of material misstatements;
- **‘materiality level’** means the quantitative threshold or cut-off point above which the verifier considers misstatements, individually or taken together, to be material;
- **‘inherent risk’** means the susceptibility of a parameter in the emissions report to misstatements that could be material, individually or taken together, before taking into consideration the effect of any related control activities;
- **‘control risk’** means the susceptibility of a parameter in the emissions report to misstatements that could be material, individually or when taken together with other misstatements, and will not be prevented or detected and corrected on a timely basis by the control system;
- **‘detection risk’** means the risk of a verifier not detecting a material misstatement;
- **‘verification risk’** means the risk (a function of inherent, control and detection risk) of the verifier expressing an inappropriate verification opinion when the emissions report is not free of material misstatements;
- **‘misstatement’** means an omission, misrepresentation or error in the reported data, apart from the uncertainty permissible pursuant to Regulation (EU) 2015/757 and taking into consideration the guidelines developed by the Commission on these matters;
- **‘material misstatement’** means a misstatement that, in the opinion of the verifier, individually or when taken together with other misstatements, exceeds the materiality level or could otherwise, have an impact on the total reported emissions or other relevant information;

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- **‘site’**, for the purposes of verifying the emissions report of a ship, means a location where the monitoring process is defined and managed, including locations where relevant data and information are controlled and stored;
- **‘internal verification documentation’** means all internal documentation that a verifier has compiled to record documentary evidence and justification of activities carried out to verify an emissions report pursuant to Regulation (EU) 2015/757;
- **‘shipping MRV auditor’** means an individual member of a verification team responsible for assessing a monitoring plan or verifying an emissions report;
- **‘independent reviewer’** means a person assigned by the verifier specifically to carry out internal review activities, who belongs to the same entity but has not carried out any of the verification activities subject to review;
- **‘technical expert’** means a person who provides detailed knowledge and expertise on a specific matter as required for the performance of verification activities for the purposes of Chapter II of Commission Delegated Regulation (EU) 2016/2072;

2. REFERENCES

- 2.1 Control of records (QPmrv5.3.5),
- 2.2 Regulation (EU) 2015/ 757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport
- 2.3 Commission delegated regulation (E U) 2016/2072 on the verification activities and accreditation of verifiers pursuant to Regulation (EU) 2015/757
- 2.4 ISO 14065:2013 - Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition,
ISO 14064-3:2006 - Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions
- 2.5 IAF MD 6:2014, IAF Mandatory Document for the application of ISO 14065:2013

3. RESPONSIBILITY

Independent reviewer is responsible to carry out internal review activities in relation to verification of the emissions report.

Shipping MRV auditor (in charge of NR) is responsible for verifying an emissions report.

Verification team leader is responsible for assembling a verification team which consist at least of one shipping MRV auditor and, as necessary of technical experts.

4. DESCRIPTION OF ACTIVITIES

4.1 GENERAL

- 4.1.1 This Procedure lays down provisions concerning the verification of emissions reports.
- 4.1.2 The verifier shall assess the conformity of the emissions report with the requirements laid down in Articles 8 to 12 and Annexes I and II of Regulation (EU) 2015/757.
In particular the verifier shall assess whether the CO₂ emissions and other relevant information included in the emissions report have been determined in accordance with Articles 8, 9 and 10 of Regulation (EU) 2015/757 and the monitoring plan.
- 4.1.3 When considering the verification of the emissions report and of the monitoring procedures applied by the company, the verifier shall assess the reliability, credibility and accuracy of the monitoring systems and of the reported data and information relating to CO₂ emissions, in particular:
 - the attribution of fuel consumption to voyages;
 - the reported fuel consumption data and related measurements and calculations;
 - the choice and the employment of emission factors;

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- the calculations leading to the determination of the overall CO₂ emissions;
- the calculations leading to the determination of the energy efficiency.

4.1.4 The verifier shall only consider emissions reports submitted in accordance with Article 12 of Regulation (EU) 2015/757 if reliable and credible data and information enable the CO₂ emissions to be determined with a reasonable degree of certainty and provided that the following are ensured:

- the reported data are coherent in relation to estimated data that are based on ship tracking data and characteristics such as the installed engine power;
- the reported data are free of inconsistencies, in particular when comparing the total volume of fuel purchased annually by each ship and the aggregate fuel consumption during voyages;
- the collection of the data has been carried out in accordance with the applicable rules; and
- the relevant records of the ship are complete and consistent.

4.1.5 Where the verification assessment concludes, with reasonable assurance from the verifier, that the emissions report is free from material misstatements, the verifier shall issue a verification report stating that the emissions report has been verified as satisfactory. The verification report shall specify all issues relevant to the work carried out by the verifier.

4.1.6 Where the verification assessment concludes that the emissions report includes misstatements or non-conformities with the requirements of Regulation (EU) 2015/757, the verifier shall inform the company thereof in a timely manner. The company shall then correct the misstatements or non-conformities so as to enable the verification process to be completed in time and shall submit to the verifier the revised emissions report and any other information that was necessary to correct the non-conformities identified. In its verification report, the verifier shall state whether the misstatements or non-conformities identified during the verification assessment have been corrected by the company. Where the communicated misstatements or non-conformities have not been corrected and, individually or combined, lead to material misstatements, the verifier shall issue a verification report stating that the emissions report does not comply with Regulation (EU) 2015/757.

4.2 COMPANY REPORTING ON CO₂ EMISSIONS

4.2.1 .1 Companies shall submit to CRS Head Office the emissions report concerning the CO₂ emissions and other relevant information for the entire reporting period for each ship under their responsibility. Template for emissions report is given in Annex II of Commission Implementing Regulation (EU) 2016/1927.

.2 Companies shall include in the emissions report the following information:

- data identifying the ship and the company, including:
 - (i) name of the ship,
 - (ii) IMO identification number,
 - (iii) port of registry or home port,
 - (iv) ice class of the ship, if included in the monitoring plan,
 - (v) technical efficiency of the ship (the Energy Efficiency Design Index (EEDI) or the Estimated Index Value (EIV) in accordance with IMO Resolution MEPC.215(63), where applicable),
 - (vi) name of the shipowner,
 - (vii) address of the shipowner and its principal place of business,
 - (viii) name of the company (if not the shipowner),
 - (ix) address of the company (if not the shipowner) and its principal place of business,
 - (x) address, telephone and e-mail details of a contact person;
- the identity of the verifier that assessed the emissions report;

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- information on the monitoring method used and the related level of uncertainty;
- the results from annual monitoring of the parameters in accordance with Article 10 of Regulation (EU) 2015/757.

4.2.2 Companies shall submit to CRS Head Office the following supporting information:

- a list of voyages carried out by the ship in question during the reporting period (for the calendar year);
- a copy of the emissions report from the previous year where appropriate, if CRS did not carry out the verification for that report;
- a copy of the monitoring plan or plans applied, including evidence of the conclusions from the assessment carried by an accredited verifier, if CRS did not carry out the assessment for that plan;
- copies of the ship's official logbook and of the oil record book (if separate);
- copies of bunkering documents;
- copies of documents containing information on the number of passengers transported and the amount of cargo carried, distance travelled and time spent at sea for the ship's voyages during the reporting period.

4.2.3 Additionally, and if applicable on the basis of the monitoring method applied, CRS may ask the company to provide:

- an overview of the IT landscape showing the data-flow for the relevant ship;
- evidence of the maintenance and accuracy/uncertainty of measurement equipment/flow meters (e.g. calibration certificates);
- an extract of fuel consumption activity data from flow meters;
- copies of evidence of fuel tank meter readings;
- an extract of activity data from direct emissions measurement systems, if fitted;
- any other information relevant to the verification of the emissions report.

4.3 VERIFICATION PROCEDURES

4.3.1 Request review

Verification team leader shall carry out request review, before Register signs legal service agreement with a client requesting verification service, ensuring that:

- service requirements are defined and in compliance with CRS rules and quality documents,
- contract or order requirements differing from those previously expressed are resolved,
- CRS has the personnel, resources and competencies necessary to meet the defined requirements, and
- impartiality risks are assessed and all possible threats for impartiality of service managed

Based on the results of the service request review process, CRS may decide to refuse service request and inform the client accordingly.

4.3.2 Legal service agreement

Register shall have the legal service agreement with each client for the verification of emissions reports. Level of assurance, objectives, criteria and scope of the verification is to be agreed with the client in accordance with ISO 14064-3:2006, item 4.3.

Register shall be responsible for performing verification activities and procedures and for issuing verification reports.

Client is to be responsible to comply with verification requirements, to make all necessary arrangements for the conduct of the verification, including provisions for documentation review and access to all relevant processes, areas, records and personnel, and for auditors accommodation, if applicable.

4.3.3 Verification team

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1. For each verification activity, the Verification team leader shall assemble a verification team capable of performing the verification activities.
2. The verification team shall consist at least of one shipping MRV auditor and, where appropriate in the light of the verifier's understanding of the complexity of the tasks to be carried out and its ability to conduct the necessary risk assessment, a suitable number of additional shipping MRV auditors and/or technical experts.
3. Team members shall have a clear understanding of their specific role in the verification process and shall be able to communicate effectively in the language required to perform their verification tasks and to examine the information submitted by the company.
4. Verification team leader shall inform the client of the names of the members of the verification team with sufficient notice for any objections to the appointment of a team member to be made.
5. Register shall consider reconfiguring the verification team in response to any objections from the client.
6. In cases of special verifications ie in response to complaints etc. CRS will use additional care in assigning team members if there is lack of opportunity for the responsible party to object

4.3.4 Risk assessment and verification plan

1. Shipping MRV auditor shall draft a verification plan commensurate with the information obtained and the risks identified during the risk assessment.
2. Risk assessment is to be carried out in accordance with paragraphs 1, 2 and 3 of Article 15 of Regulation (EU) 2015/757 and Article 11 of Commission Delegated Regulation (EU) 2016/2072 and AVR Key guidance note no.II.2.

Shipping MRV auditor shall identify 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 auditor shall carry out further analyses.

Shipping MRV auditor shall identify potential risks related to the different calculation steps by reviewing all data sources and methodologies used.

Shipping MRV auditor shall take into consideration any effective risk control methods applied by the company to reduce levels of uncertainty associated with the accuracy specific to the monitoring methods used.

Shipping MRV auditor shall identify and analyse all of the following: the inherent risks, the control risks and the detection risks.

Shipping MRV auditor shall consider areas of higher verification risk and at least the following: voyage data, fuel consumption, CO₂ emissions, distance travelled, time spent at sea, cargo carried and aggregation of data in the emissions report.

When identifying and analysing the aspects referred to in previous paragraph, the auditor shall consider the existence, completeness, accuracy, consistency, transparency and relevance of the information reported.

Where appropriate in the light of the information obtained in the course of the verification, the auditor shall revise the risk assessment and modify or repeat the verification activities to be performed.

The shipping MRV auditor shall include the results of the risk assessment in the internal verification documentation.

3. Verification plan shall include at least:
 - a verification programme describing the nature and scope of the verification activities and the time and manner in which they are to be carried out;
 - a data sampling plan setting out the scope and methods of data sampling relating to data points underlying the aggregated CO₂ emissions, fuel consumption or other relevant information in the emissions report.
4. Team leader shall approve verification plan

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4.3.5 Verification activities and site visit

1. Shipping MRV auditor shall implement the verification plan and, on the basis of the risk assessment, verify whether the monitoring and reporting systems, as described in the monitoring plan that has been assessed as satisfactory, exist in practice and are properly implemented.

To that end, the auditor shall consider carrying out site visits and performing at least the following activities:

- enquiry with relevant staff;
 - document inspection;
 - observation and walkthrough procedures.
2. If applicable, the auditor shall check whether the internal control activities described in the monitoring plan are implemented effectively. For that purpose, it may consider testing the effectiveness of documented controls on the basis of a sample.
 3. The auditor shall determine the location for the site visit on the basis of the results of the risk assessment and after taking into consideration the place where the critical mass of relevant data is stored, including electronic or hard copies of documents of which the originals are kept on the ship, and the place where data-flow activities are carried out.
 4. The auditor shall also determine the activities to be performed and the time needed for the site visit.
 5. The auditor may waive a site visit provided that, on the basis of the outcome of the risk assessment, one of the following conditions is fulfilled:
 - Register has sufficient understanding of the ship's monitoring and reporting systems, including their existence, implementation and effective operation by the company;
 - the nature and level of complexity of the ship's monitoring and reporting system are such that a site visit is not required;
 - auditor ability to obtain and assess remotely all requisite information, including correct application of the methodology described in the monitoring plan and verification of the data reported in the emissions report.
 6. On the basis of the outcome of a site visit to company office, where auditor concludes that an on-board verification is needed to reduce the risk of material misstatements in the emissions report, the Register may decide to visit the ship.
 7. If the Register waives a site visit, the auditor shall provide justification for doing so in the internal verification documentation.

4.3.6 Verification of emissions report

1. Shipping MRV auditor shall verify the data reported in the emissions report through:
 - detailed testing, including by tracing them back to the primary data source;
 - cross-checking them with external data sources, including ship-tracking data;
 - performing reconciliations;
 - checking thresholds as regards appropriate data; and
 - carrying out recalculations.
2. As part of the data verification, the auditor shall check:
 - the completeness of emission sources as described in the monitoring plan;
 - the completeness of data on voyages reported;
 - the consistency between reported aggregated data and data from relevant documentation or primary sources;
 - the consistency between aggregated fuel consumption and data on fuel purchased or otherwise supplied to the ship in question, if applicable;
 - the reliability and accuracy of the data.

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- .3 For the purpose of verifying fuel consumption and CO₂ emissions data in the emissions report, the materiality level shall be 5 % of the respective total reported for each item in the reporting period.

For the purpose of verifying other relevant information in the emissions report, on cargo carried, transport work, distance travelled and time spent at sea, the materiality level shall be 5 % of the respective total reported for each item in the reporting period.

- .4 To complete the verification of the emissions report, shipping MRV auditor shall at least:
- confirm that all verification activities have been carried out;
 - perform final analytical procedures on the aggregated data to ensure that they are free of material misstatements;
 - verify whether the information in the report satisfies the requirements in Article 11 of Regulation (EU) 2015/757;
 - before issuing the report, prepare the internal verification documentation and the draft report and submit them to the independent reviewer in accordance with 4.3.8.

4.3.7 **Dealing with identified misstatements or non-conformities**

- .1 Where the shipping MRV auditor identifies misstatements or non-conformities in the course of the verification of the emissions report, he shall inform the company thereof without undue delay and request relevant corrections within a reasonable deadline.
- .2 The auditor shall document in the internal verification documentation, marking them as resolved, all misstatements or non-conformities that have been corrected in the course of the verification.
- .3 Where the company does not correct the misstatements or non-conformities, the auditor shall, before issuing the verification report, ask the company to explain the main causes of the misstatements or non-conformities.
- .4 The auditor shall determine whether the uncorrected misstatements, individually or together with other misstatements, have an impact on the total reported emissions or other relevant information and whether that impact leads to material misstatements.
- .5 The auditor may consider misstatements or non-conformities which, individually or together with other misstatements, are below the materiality level set in 4.3.6.3 as material misstatements, where that is justified by their scale and nature or by the particular circumstances of their occurrence.

4.3.8 **Review of the internal verification documentation**

Independent reviewer shall review the internal verification documentation and the draft verification report to verify that the complete verification process has been conducted in accordance with Regulation (EU) 2015/757 and that due professional care and judgment have been exercised.

Record of the review findings/ conclusions shall be submitted to shipping MRV auditor.

4.3.9 **Preparation of verification report and authentication**

Shipping MRV auditor shall authenticate the report on the basis of the conclusions reached by the independent reviewer and the evidence of the internal verification documentation.

The shipping MRV auditor shall include the results of the independent review in the internal verification documentation.

4.3.10 **Communication of information to interested parties**

- .1 Shipping MRV auditor shall communicate to the company:
 - information about authentication of the report,
 - recommendations for improvement in relation to uncorrected misstatements and non-conformities not leading to material misstatements,
 - other recommendations for improvement that he finds relevant, in the light of the outcome of the verification activities.

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When communicating recommendations to the company, the auditor shall remain impartial vis-à-vis the company, the ship and the monitoring and reporting system. The auditor shall not jeopardise his impartiality by giving advice or developing parts of the monitoring and reporting process.

- .2 Shipping MRV auditor shall communicate to the Commission and the ship's flag state whether the conditions for issuing the document of compliance are fulfilled.
- .3 Register shall provide the following information to the client:
 - a detailed description of the verification process;
 - changes to the verification requirements and the relevant MRV Regulation that may affect the objectives of the client;
 - a schedule of verification activities and tasks;
 - relevant information on verification team members;
 - information about verification fees;
 - Register policy governing any statement that the client is authorized to use making reference to its verification;
 - information on procedures for handling complaints and appeals.

4.4 VERIFICATION REPORT

- 4.4.1 .1 On the basis of the information collected, shipping MRV auditor shall issue a verification report to the company on each emissions report subject to verification and after review of the internal verification documentation.
- .2 Verification report shall include a statement verifying the emissions report as satisfactory or unsatisfactory, in case it contains material misstatements that were not corrected before the report was issued.
- .3 For the purposes of paragraph .2, the emissions report shall be considered to have been verified as satisfactory only if it is free of material misstatements.
- .4 Verification report shall contain at least the following elements:
 - the name of the company and identification of the ship;
 - a title making it clear that it is a verification report;
 - the identity of the verifier;
 - a reference to the emissions report and the reporting period subject to verification;
 - a reference to one or more monitoring plans that have been assessed as satisfactory;
 - a reference to the verification standard(s) used;
 - a summary of the verifier's procedures, including information on site visits or the reasons for waiving them;
 - a summary of significant changes to the monitoring plan and activity data in the reporting period, where applicable;
 - a verification statement;
 - a description of uncorrected misstatements and non-conformities, including their nature and scale, whether or not they have a material impact and the element(s) of the emissions report to which they relate, if any;
 - where applicable, recommendations for improvement;
 - the date of the verification report and signature of an authorised person on behalf of the verifier.
- 4.4.2 Register shall consider appropriate action if facts that could materially affect the verification statement are discovered by the client or responsible party after the issuance of the verification statement, including the following:
 - determining if the facts have been adequately disclosed in the verification statement;
 - considering if the verification statement requires revision;
 - discussing the matter with the client or responsible party, as appropriate.

Depending on the type of findings, Shipping MRV auditor shall review the internal verification documentation and verification report and repeat the activities in 4.3.6 to 4.3.10, as appropriate.

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If the verification statement requires revision, Shipping MRV auditor shall issue a revised verification report and issue a revised verification statement based on conclusions reached with the client/ responsible party, which specifically addresses the reason for the revision.

4.5 DOCUMENT OF COMPLIANCE

- 4.5.1
- .1 Where the emissions report fulfils the requirements set out in Articles 11 to 15 and those in Annexes I and II of Regulation (EU) 2015/757, shipping MRV auditor shall issue, on the basis of the verification report, a document of compliance for the ship concerned.
 - .2 Document of compliance shall include the following information:
 - identity of the ship (name, IMO identification number and port of registry or home port);
 - name, address and principal place of business of the shipowner;
 - identity of the verifier;
 - date of issue of the document of compliance, its period of validity and the reporting period it refers to.
 - .3 Document of compliance shall be valid for the period of 18 months after the end of the reporting period.
 - .4 Shipping MRV auditor shall inform the Commission and the authority of the flag State, without delay, of the issuance of any document of compliance. The auditor shall transmit the information referred to in paragraph .2 using automated systems and data exchange formats, including electronic templates. Template for document of compliance is given in Annex III of Commission Implementing Regulation (EU) 2016/1927.

4.6 Forms to be used in application of this Procedure

- .1 Request review form (QFmrv02)
- .2 Agreement form (QFmrv01)
- .3 Risk assessment record
- .4 Verification plan
- .5 Verification check list
- .6 Internal review record
- .7 Verification Report (QFmrv03)
- .8 Document of Compliance

5. SADRŽAJ IZMJENA - REVISION SUMMARY

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1. PURPOSE

The purpose of this procedure is:

- To prescribe the sequence of actions and responsibilities during assessment of Monitoring Plans (hereafter, MP), starting from submission of written request from the Company to CRS Head Office, up to the issue of approval letter.

The objective of this procedure is:

- To provide assessment teams clear understanding of their specific role and duties in the verification process and to ensure assessment tasks allocated to them shall be performed in accordance with the requirements of Regulation (EU) 2015/757 (hereafter, MRV Regulation) and EC delegated Regulation (EU) 2016/2072.

1.1 Definitions

In addition to definitions laid down in Art 3 of MRV Regulation the following definitions shall be applied:

Non-conformity (NC) – means that MP does not fulfil requirements under Article 6 (content of MP) and Article 7 (modifications of MP) of MRV Regulation and EC Implementing Regulation (EU) 2016/1927 (prescribed template of MP).

Site – for the purposes of assessing the MP means a location where the monitoring process is defined and managed, including locations where relevant data and information are controlled and stored;

Internal verification documentation – means all internal documentation that a verifier has compiled to record documentary evidence and justification of activities carried out to assess MP pursuant to EC Delegated Regulation (EU) 2016/2072. CRS' internal verification documentation is contained in "Record of assessment of Monitoring Plan" (QFmrv-05).

Shipping MRV auditor – means an individual member of a verification team responsible for assessing a MP;

Independent reviewer – means a person assigned by the CRS specifically to carry out internal review activities, who belongs to the CRS but has not carried out any of the verification activities subject to review;

Technical expert – means a person who provides detailed knowledge and expertise on a specific matter as required for the performance of assessment activities of MP but does not act as verifier in verification team.

2. REFERENCES

- 2.1 Control of records (QPmrv5.3.5)
- 2.2 Record of assessment of Monitoring Plan (QFmrv-05)
- 2.3 Service Agreement (QFmrv-01)
- 2.4 Regulation (EU) 2015/757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport
- 2.5 Commission delegated regulation (EU) 2016/2072 on the verification activities and accreditation of verifiers pursuant to Regulation (EU) 2015/757
- 2.6 Commission implementing regulation (EU) 2016/1927 on templates for monitoring plans, emissions report and documents of compliance pursuant to Regulation (EU) 2015/757
- 2.7 Commission implementing regulation (EU) 2016/1928 on determination of cargo carried for categories of ships other than passenger, ro-ro and container ships pursuant to Regulation (EU) 2015/757
- 2.8 Commission delegated regulation (EU) 2016/2071 amending Regulation (EU) 2015/757 of the European Parliament and of the Council as regards the methods for monitoring carbon dioxide emissions and the rules for monitoring other relevant information
- 2.9 ISO 14065:2013 - Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition
ISO 14064-3:2006 - Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions
- 2.10 Communication with the client (QPmrv5.3.1)
- 2.11 IAF MD 6:2014, IAF Mandatory Document for the application of ISO 14065:2013
- 2.12 QWmrv1 – Practical guidelines on the MP assessment (based on ESSF shipping MRV Monitoring Group reports of May 2017)

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3. RESPONSIBILITY

Independent reviewer is responsible to carry out internal review activities in relation to assessment of MP as prescribed in. Independent reviewer is Tr, TSEv or TSE/VB.

Shipping MRV auditor is responsible for verifying of MP. List of CRS' MRV Auditors is contained in Annex VII of QC-UA-002.

Verification team leader is responsible for assembling a verification team which consist at least of one CRS MRV auditor and, as necessary of technical experts.

Other responsibilities are stated in 4.

4. DESCRIPTION OF ACTIVITIES

4.0 Request review

4.0.1 Pre-engagement request review

Following the receipt of the request and before CRS signs legal service agreement with a client requesting service, TSEv shall evaluate the request and complete all pre-engagement activities ensuring that:

- relevant information (as stated in 4.2) is submitted to CRS,
- service requirements are defined and in compliance with CRS rules and quality management system documents,
- contract or order requirements differing from those previously expressed are resolved,
- impartiality risks of the verification body are assessed as detailed procedure QPmrv 5.1.3, item 4.1.1 and recorded in QFmrv02, and
- CRS has available the personnel, resources and competencies necessary to meet the defined requirements,

TSEv nominates Team Leader and, if applicable, other team members and/or technical experts and independent reviewer. TSEv completes pre-engagement activities ensuring that impartiality risks of all team members including independent reviewer are assessed and properly recorded as detailed in procedure QPmrv5.1.3 item 4.1.2.

Based on the results of the service request review process, TSEv may decide to refuse service request and inform the client and Tr accordingly.

4.0.2 Preparation of Agreement and launching of work order

Following consideration specified in 4.8.1:

- Team Leader prepare Agreement (QFmrv-01)
- Tr verifies and signs the Agreement
- Team Leader forwards reply to the company together with Agreement
- After positive reply and receiving signed Agreement from company Team Leader launches the work order (NR).

4.1 GENERAL

When assessing the MP, the CRS shall address the assertions of:

- completeness,
- accuracy,
- relevance, and
- conformity with MRV Regulation of the information provided in the MP.

For details see 4.3.

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4.1.1 Scope of assessment

CRS shall at least:

- (a) assess that the company used the appropriate MP template and that information is provided for all mandatory items referred to in Annex I to Implementing Regulation (EU) 2016/1927;
- (b) verify that the information in the MP accurately and completely describes the emission sources and measurement equipment installed on board the ship and the systems and procedures in place to monitor and report relevant information pursuant to Regulation (EU) 2015/757;
- (c) ensure that adequate monitoring arrangements are provided for in the event of the ship seeking to benefit from the derogation of 'per voyage' monitoring of fuel and CO₂ emissions pursuant to Article 9(2) of Regulation (EU) 2015/757;
- (d) where applicable, assess whether the information submitted by the company regarding elements, procedures or controls implemented as part of the ship's existing management systems or covered by harmonised relevant quality, environmental or management standards is relevant for monitoring CO₂ emissions and other relevant information and reporting pursuant to Regulation (EU) 2015/757 and Commission Implementing Regulation (EU) 2016/1928.
- (e) For more details see 4.3.

4.1.2 Audit techniques

For the purpose of assessing the MP, the verifier may resort to inquiry, document inspection, observation and any other audit technique deemed appropriate.

4.2 Information to be provided by companies

4.2.1 Companies shall provide the CRS with their ship's MP using a template corresponding to the model set out in Annex I to Implementing Regulation (EU) 2016/1927. If the MP is in a language other than English, they shall provide an English translation.

4.2.2 Before the start of the assessment of the MP, the company shall also provide the CRS with at least the following information:

- .1 relevant documentation or description of the ship's installations, including emissions sources certificates, flow meters used (if applicable), procedures and processes or flowcharts prepared and maintained outside the plan, where applicable, to which reference is made in the plan;

Non-exhaustive list of such documents may be as follows:

- Emissions sources certificates (e.g. EIAPP),
 - General Arrangement Plan,
 - Flow meters installation diagrams-piping diagrams,
 - Description of calibration and details of flow meters,
 - Bunkering/Fuel Management/Fuel Testing,
 - Procedures, processes or flowcharts, dealing with Data Gaps (sample of electronic reported data, sample of noon report, relevant manuals or forms for missing data),
 - Data Management systems (IT landscape, IT manuals, back-up, access procedure incl. maintenance planning system),
 - Company's Manuals (SEEMP, relevant sections of ISM Manual),
 - Control activities (risk assessment, risk mitigation of incidents, quality assurance etc.).
- .2 in the event of those changes to the monitoring and reporting system referred to in points (c) and (d) of Article 7(2) of Regulation (EU) 2015/757, relevant updated versions or new documents enabling the assessment of the amended plan. For details see 4.7.
 - .3 The company shall, upon request, provide the CRS any other information deemed relevant to carry out its assessment of the plan.

4.2.3 CRS will communicate with client as detailed in procedure QPmrv5.3.1 (Communication with the client)

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4.3 Assessment of completeness, accuracy, relevance and conformity of MP

Note: The check list in Part 4 of Record of assessment of MP shall be filled-in.

4.3.1 Assessment of completeness

- .1 Completeness means that all sources with regard to monitoring and reporting of the data set are included and coverage of the information is sufficient to evaluate the extent of the company's performance.
- .2 Information for all mandatory Parts A to F of the MP template contained in Annex I of the EC Implementing Regulation (EU) 2016/1927 shall be provided for completeness to be established. For this purpose the Record of assessment of MP shall be filled-in by a CRS' MRV auditor.
- .3 Ship's drawings and emission source certificates shall be used to check the completeness of the emission sources.
- .4 Procedures and process or flow charts prepared and maintained outside the MP to which reference is made in the MP shall be checked.

When the procedure is already existing outside the MP, the company has to indicate in the MP the exact section / paragraph of the related procedure and provide it to the CRS. A summary of the relevant aspects of the procedure shall be requested to the company.

4.3.2 Assessing of accuracy

Accuracy is the closeness to the true value. CRS MRV auditor must carry out a due diligence exercise to ensure that the process(es) for gathering, calculating and measuring data sets exhibit the highest degree of correctness.

4.3.2.1 Procedures & controls

Accuracy in the MP shall be established when procedures and controls in place are tested.

4.3.2.1.1 Checking the data flow procedures

The CRS MRV auditor will assess whether company has in place a data flow describing the series of activities taken from recording primary data at sea to storing information regarding measurements ashore. Bearing in mind that the "data flow" diagram is not a requirement as such, its existence nevertheless reveals a good company profile which has exercised due care in preparing for the implementation of the MRV Regulation.

The data flow diagram may be considered as a good instrument to be used particularly when assessing the requirement of Table C.2.5. "Procedures for recording, retrieving, transmitting and storing information regarding measurements". Such a tool could help the auditor acquire a good understanding of the company's operating environment, drawing conclusions on the risk profile which might influence the nature of the assessment to be done by the auditor.

To assess the data flow, the auditor need to understand how data recording related to fuel consumption takes place on the vessel side, how is this data retrieved (e.g. automated through flow meter measurements vs. manual tank soundings performed by the Chief Engineer), how is this data transmitted to shore (e.g. through the use of predefined forms in a central system versus through email), and lastly how is data stored and where.

The auditor will check which persons are responsible and competent for specific data flow activities.

The general data flow is often dependent on existing IT and/or data management systems. The auditor must not rely solely on existing IT and/or data management systems or procedures without testing the specific data flow procedure.

Activities of CRS MRV auditor in checking of a.m.:

- Conduct interviews with persons responsible for recording, retrieving, transmitting and storing information regarding measurements.
- Observation of this specific data flow procedure.
- Enquiry of relevant forms, data management system involved.

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- Document inspection if reference made.

4.3.2.1.2 Checking control activities

CRS MRV auditor is obliged to check whether the control activities listed in the MP are effective at mitigating the risks e.g.:

- regarding the requirement for ensuring quality assurance of measuring equipment (Table C.2.8)
- regarding the requirement for ensuring quality and reliability in the IT systems used (Table E.2)
- regarding the requirement for internal reviews and validation of all MRV relevant data (Table E.3)
- regarding the requirement for a clear procedure on how to perform corrections on MRV relevant data and take corrective actions (Table E.4)
- regarding the requirement for clear steps to be followed when document recording and documentation management (Table E.5)

Control activities for example may include Calibration and Maintenance Manuals of measuring instruments used in accordance with manufacturers' specification (e.g. Flow meters); Methodology to recover potential data gaps related to fuel measurements; Role separation of data input from data check.

Example for Table C.2.8. Quality assurance of measuring equipment

Companies need to ensure that all relevant measuring equipment is calibrated, adjusted and checked at regular intervals. The required frequency and nature of checks and adjustments may be specified in the MP or in the internal written procedures. In such cases, the auditor for example may:

- confirm that the appropriate checks and adjustments have been carried out;
- review the documentation to ensure that the checks have been performed in accordance with the required standards (if applicable) and procedures.
- check whether corrective action has been taken by the operator if the measurement equipment was found not functioning properly.

4.3.3 Assessment of relevance

The information provided by the company must be relevant in the context.

CRS MRV Auditor has to review the MP so as to identify whether the submitted information is relevant to provide the necessary insight in the way information it is monitored and reported by the company according to MRV Regulation.

Document inspection to be requested and reviewed for the purpose of assessing relevance (non exhaustive list):

- Manuals;
- Data sources;
- IT Management System Description;
- Job descriptions, duties and responsibilities; confirmation of correctness via interviews of key staff involved in MRV matters during office visit, if applicable;
- Observation of IT systems dedicated to EU MRV compliance (Excel/dedicated tools);
- SEEMP, ISM Code, relevant ISO standards, etc;
- Any other document referenced in the MP.

4.3.4 Assessment of conformity

Conformity means that all mandatory items as required by Article 6 and 7 of the MRV Regulation and Annex I to Implementation Regulation (EU) 2016/1927 are duly covered.

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4.3.4.1 Addressing non-conformities in the MP

- .1 Where the Verification Team identifies non-conformities in the course of the assessment of the MP, the Team Leader shall immediately inform the company thereof and request relevant corrections within a proposed timeframe.
- .2 The company shall correct all non-conformities communicated by the CRS and submit a revised MP to the CRS according to the agreed timeframe that allows the CRS to reassess it before the start of the reporting period.
- .3 The CRS MRV Auditor shall document in the Record of assessment of MP, marking them as resolved, all non-conformities that have been corrected in the course of the assessment of the MP.

4.4 Independent review of the assessment of the MP

- 4.4.1 The Team Leader team shall submit the Record of assessment of MP and draft conclusions from the assessment of the plan to an appointed independent reviewer without delay and prior to communicating them to the company.
- 4.4.2 The independent reviewer shall perform a review to ensure that the MP has been assessed in accordance with this Procedure and that due professional care and judgment have been exercised.
- 4.4.3 The scope of the independent review shall encompass the complete assessment process described in this Procedure and recorded in the Record of assessment of MP.
- 4.4.4 The Team Leader has to include the results of the independent review in the Record of assessment of MP.

4.5 Site visits

- 4.5.1 Site visit will be in general carried out in shipping company office premises and have duration of one man/day per office visited (see note below).

Team leader shall also take into consideration the place where the critical mass of MRV relevant data is stored, including electronic or hard copies of documents of which originals are kept on the ship, and the place where data-flow activities are carried out, on the base of conclusions made, Time leader may decide to expand site visit time. Shipping company shall be timely informed on the activities that will be performed during site visit and of the estimate time needed for the site visit, as well as on the company responsible staff that will need to be available during site visit

Site visit shall be carried out in order that CRS' MRV Auditor gains sufficient understanding of the procedures described in the MP and validate that the information therein is accurate.

The key activities that CRS' MRV auditor has to conduct shall be as follows:

- interviewing staff involved in the processes subject to monitoring,
- reviewing documents that are not required to be submitted with the MP, but are required to be retained by the company in the context of the MRV Regulation,
- assessing companies' procedures in practice,
- checking data flow and assessing the completeness of emission sources and fuel types,
- actual testing of the control activities and assessing the application of procedures mentioned in the assessed MP,
- obtaining physical evidence through assessment of measurement equipment, monitoring systems and processes.

Note: If the company operate at several locations the site visit shall be conducted at location relevant for MRV process based on Team leader decision.

- 4.5.2 .1 Site visit may be, in general, waived providing that CRS' MRV Auditor:

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- (a) has sufficient understanding of the ship's monitoring and reporting systems, including their existence, implementation and effective operation by the company;
- (b) the nature and level of complexity of the ship's monitoring and reporting system are such that a site visit is not required;
- (c) his/her ability to obtain and assess all requisite information remotely.

For previously assessed MP by CRS, in a case of MP revisions, site visit may be waived.

- .2 If the CRS waives a site visit it shall be reflected in Record of assessment of MP.

4.6 Conclusions of the assessment of the MP

On the basis of the information collected during the assessment of the MP, the Team Leader shall without delay inform the company in writing of the conclusions reached and indicate whether the MP:

- (a) is assessed as being in conformity with Regulation (EU) 2015/757 and produce Approval letter, or
- (b) contains non-conformities that make it not in compliance with Regulation (EU) 2015/757 and further dealing as per 4.3.4.1.

Conclusions are to be included in Part 7 of Record of assessment of MP.

Monitoring plan cannot be approved before all NC imposed are resolved satisfactorily.

Tr shall consider appropriate actions if facts that could materially affect the assessment statement expressed in Approval letter, are discovered by the shipping company or other interested parties, including the following:

- .1 determining if the facts have been adequately disclosed in the Monitoring Plan and /or other relevant documents submitted by the shipping company
- .2 considering if Approval letter requires revision,
- .3 discussing the matter with the entity that discovered the facts that could materially affect the assessment statement (e.g. shipping company, Flag administration, etc.)

Where Approval letter requires revision, Tr shall appoint TSEv to issue a revised assessment report and issue a revised Approval letter which specifically addresses the reason for the revision.

Tr shall consider appropriate actions in cases where it is necessary to conduct, at short notice, the re-assessment of the Monitoring plan in response to complaints or facts discovered after the issuance of Approval letter, including the following:

- .1 notification, in advance, of the shipping company, Flag administration or both, of the conditions under which the special verification is to be conducted, and
- .2 assigning other verification team members than for initial assessment of the Monitoring plan.

4.7 Modifications of MP and re-assessment

4.7.1 Companies shall modify the MP in any of the following situation:

- (a) where a change of company occurs;
- (b) where new CO₂ emissions occur due to new emission sources or due to the use of new fuels not yet contained in the MP;
- (c) where a change in availability of data, due to the use of new types of measuring equipment, new sampling methods or analysis methods, or for other reasons, may affect the accuracy of the determination of CO₂ emissions;
- (d) where data resulting from the monitoring method applied has been found to be incorrect;
- (e) where any part of the MP is identified as not being in conformity with the requirements of MRV Regulation and the company is required to revise it.

4.7.2 Companies shall notify the CRS without undue delay any proposals for modification of the MP.

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4.7.3 Following the assessment the CRS shall notify the company whether those modification are in conformity.

4.8 Backward assessment of MP

4.8.1 Scenarios for backward assessment

Backward assessment of monitoring plans may arise when ships sail to any EU port of call for the first time after 31st August 2017 and did not submit a MP within the deadline because they did not foresee such voyage/s.

Three most common cases of late submission of a MP to the “verifiers” by 31 August 2017 are as follows:

4.8.1.1 Late submission of the Monitoring Plan (MP)

Article 6.1 of Regulation (EU) 2015/757 prescribes that “by August 2017, companies shall submit to the verifiers a MP for each of their ships”. Verifiers and companies will have sufficient time to assess compliance of the MP and companies will be ready for monitoring as of 1 January 2018. Although majority of companies are expected to comply, experience from other schemes shows that a few may be late. These companies will be non compliant if they do not fall within scenario 2 and 3 below.

4.8.1.2 First trip into EU: first time part of scheme (“newcomer”)

Article 6.2 of Regulation (EU) 2015/757 derogate from Article 6.1 prescribing that “for ships falling under the scope of this Regulation for the first time after 31 August 2017, the company shall submit a MP to the verifier without undue delay and no later than two months after each ship's first call in a port under the jurisdiction of a Member State”. If a ship intends to sail to or from a port of call under the jurisdiction of a Member State after 30th August and that intends to do it after 1st January 2018, falls in the category of Article 6.2.

4.8.1.3 Change of MRV Company for ships in compliance

This scenario relates to Article 7.2 (a) and it prescribes that “Companies shall modify the monitoring plan where a change of company occurs. Changes in MRV companies may lead to several other changes with impacts on the MP: e.g. loss of data where IT systems are no longer available. Under these circumstances, the new MRV company shall seek approval of the modified MP without undue delay.

The new MRV company takes over monitoring and reporting responsibilities for the entire reporting year from the moment it owns the ship. As a best practice, it is recommended that ship’s purchase contracts include clauses whereby new MRV companies have full access to MRV related data for the period prior to the change of ownership and that the previous MRV company ensures that data for the period prior to the change of ownership are complete and correct.

In all scenarios the overarching issue relates to time as companies are required to start monitoring emissions and transport work without the support of an approved MP.

4.8.2 Availability of data and estimation methodologies for the MP development

4.8.2.1 General

The development of the MP in a short period of time is possible where there is availability of data and estimation methodologies to fill in the data gaps.

- **Availability of data**; according to maritime sector experience it is expected that ships will have readily available data on fuel used (divided per voyage and at berth); distance travelled; cargo carried and time spent at sea. However, the data available may well not be in line with MRV requirements and it will require companies to rework/systematise the data available for EU voyages, cargo work, etc.
- **Accuracy of data** ; the MRV Regulation does not provide limits for accuracy for data. Verifiers’ assessment focuses on data reliability and recommendations for improvements of accuracy is to be made where appropriate.
- **Data gaps**, where companies do not have sufficient data available, they will need to provide acceptable default factors for data gaps. As there is no one size fits all solution, each company will provide its own estimation method for data gaps. Estimation methods may include ship own values from past voyages, extrapolation, interpolation, sector information, tracking data bases, etc. Under these circumstances, the materiality threshold will be assessed by the auditor and could still lead to a qualified statement (positive).

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4.8.2.2 E stimation methods

4.8.2.2.1 Estimation of fuel oil consumption

The use of the engine power speed curves can yield a power-speed histogram. It is preferred to have the day split into more than one segment. The specific fuel oil consumption can then be estimated from the maker's curves. This exercise will define the propulsion related fuel consumption. It can also be found in the Engine Room Log-Book. Many ships integrate torque meters and RPM meters and provide digital image of power. Power will change with weather/speed. Once again, the E/R Log Book will contain the power (and SFOC) of the diesel generators. It is to be noted that the power at sea for diesel generators is but a fraction of the propulsion power. Boilers are not typically fed using economizers instead without additional fuel consumption.

4.8.2.2.2 Alternative estimation of fuel consumption

An alternative path to estimate fuel consumption looks at fuel consumption of other similar vessels or looks at similar conditions of speed and weather, as evidenced from the noon reports and log book. If distance changes, consumption can be scaled proportionally to the distance.

4.8.2.2.3 Estimation of transport work data

Cargo can be estimated from the drafts in the log book. Distance travelled can be obtained from the GPS or the log book/noon reports. All of these sources must contain consistent data.

4.8.3 Dealing with backward assessment of MP

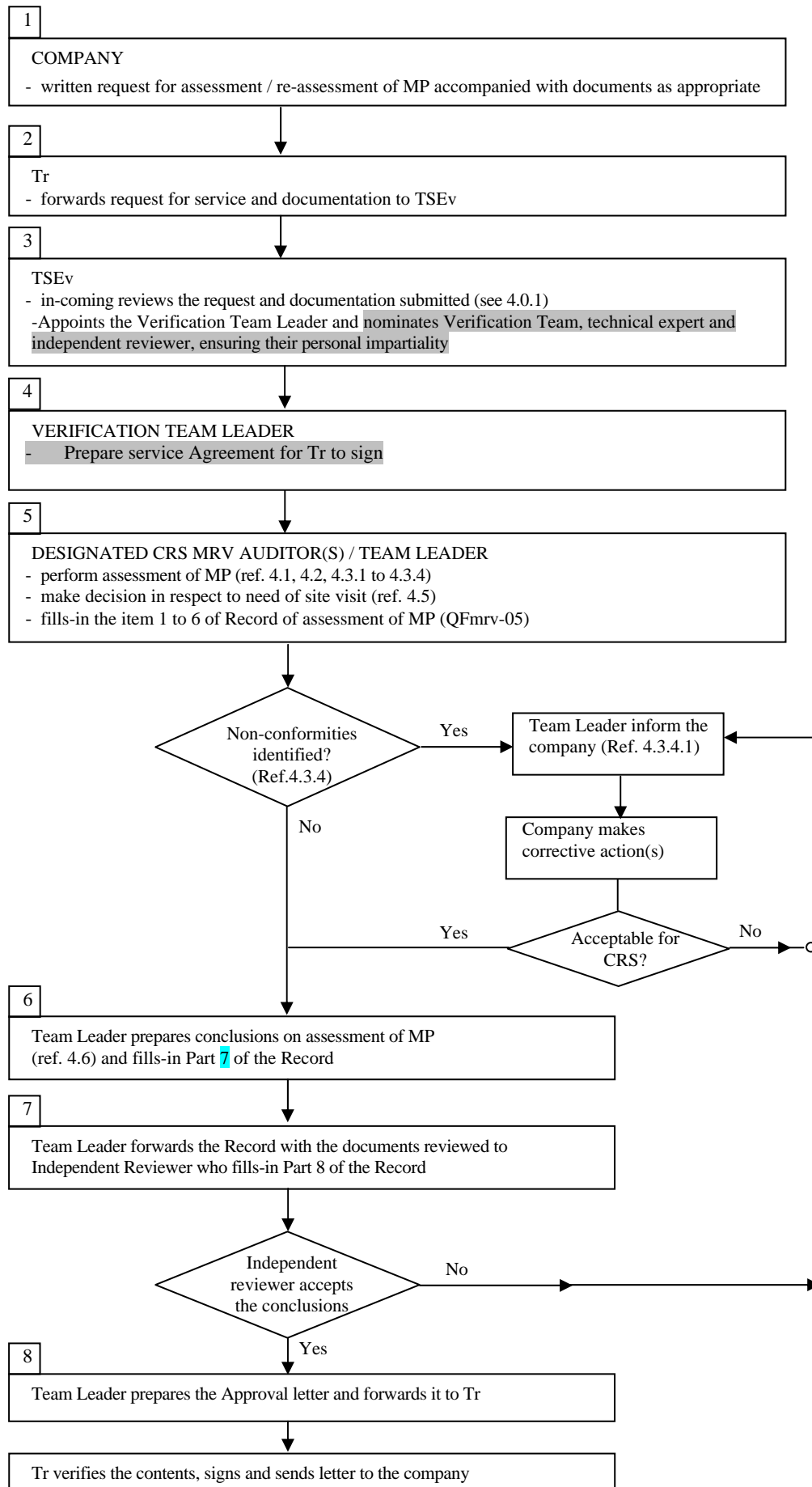
If monitoring starts prior to the MP being approved by the verifier, inform the Company requesting backward assessment of the MP to start without any delay with preparing MP and submitting necessary documentation and to ensure as much as possible there is alignments with the MRV Regulation monitoring requirements;

The assessment of the MP needs to be completed prior to the verification of the emissions report;

Where companies have data gaps, estimation methods shall be used for the provision of alternative data. In this case, a qualified opinion (positive) can be issued by the verifier if the numbers (with omissions) are still within the materiality threshold;

New MRV companies should request the previous MRV company to ensure that the data related to the reporting period under its responsibility is complete and correct. Should the new MRV company modify the MP for the elements listed under Article 7.2 (b), (c), (d), the modifications shall be subject to a new assessment by the verifier.

4.9 Schematic outline of activities



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5. SADRŽAJ IZMJENA - REVISION SUMMARY

<i>Revizija</i> <i>Revision</i>	<i>Opis izmjena</i> <i>Revision summary</i>	<i>Datum stupanja na snagu</i> <i>Date effective</i>
0	Initial issue	2017-03-01
1	In Ch.4.9 added "Backward assessment of Monitoring Plans"	2017-06-01
2	In Ch.4.5 and 4.0 are reflected the findings from HAA audit (12 and 13 June 2017). Minor changes throughout of text.	2017-07-10