Supplementary appendix – Reference scheme/program: Carbon Footprint
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CHAPTER 1 - GENERAL

This appendix defines the procedures applied by RINA for validation and verification activities and the methods to be followed by interested parties in order to request and obtain validation/verification on the Carbon Footprint scheme of products or services, with respect to what is already defined in the General Rules for validation and verification activities of information declared in claims.

RINA offers verification of the carbon footprint (CFP) of a product or service, according to the principles and requirements of the reference standard PAS 2050:2011, or to the ISO 14067 standard, or to the principles and requirements of the reference standard WRI/WBCSD GHG "Product life cycle calculation and reporting standards".

These are the globally recognised standards for product carbon footprints.

The calculation and reporting of product/service GHGs shall follow the principles of relevance, accuracy, completeness, consistency and transparency.

Both standards build on existing life cycle assessment methods established through UNI EN ISO 14040 and UNI EN ISO 14044 by specifically providing requirements for the assessment of GHG emissions within the life cycle of goods and services.

The CFP can be calculated for a single product or for similar products (belonging to the same type deriving from the same production process and production site, whose CFP variation is less than + 10%).

The verification activity must be understood as a punctual activity aimed at assessing the reliability of data related to the calculation of the CFP over a specific time period.

A systematic approach to CFP is a set of activities developed by an organisation through a series of procedures in order to facilitate the development of CFPs for multiple products within the same organisation. This is applicable when the same set of data and allocation procedures are applicable for all its products.

The implementation of the systematic approach to CFP should also simplify all verification activities, avoiding any redundancy in the verification of the data set.

The systematic approach to CFP must be able to develop the CFP of an individual product in accordance with ISO 14067 and any additional requirements contained in the PCRs and rules established by the programme operator, where applicable.

The systematic approach to CFPs must contain measures to identify variable conditions that increase the risk of making the CFP outdated or unrepresentative. Efficient control and relevant action must be applied to these identified risks.

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

- 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.
- ISO 14064-3:2019 - Greenhouse gases - Part 3: Specifications and guidance for validation and verification of greenhouse gas claims
- ISO 14067:2018 -Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification and reporting.
- PAS 2050 -Specification for assessing life cycle greenhouse gas emissions from goods and services.
- WRI/WBCSD GHG Protocol - "Standard for Product Life Cycle Accounting and Reporting.

2.4 DEFINITIONS

Carbon Footprint of a product (CFP): Total greenhouse gas (GHG) emissions and removals in a product system, expressed in CO_{2eq} and based on a life cycle assessment performed with reference to the environmental

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impact category of global warming only.

The CFP can be calculated for a single product or for similar products (belonging to the same type deriving from the same production process and production site, whose CFP change is less than + 10%).

Partial Product Carbon Footprint (partial product CFP): Total greenhouse gas (GHG) emissions and removals associated with one or more selected processes in a product system, expressed in CO_{2eq}.

Carbon Footprint systematic approach (CFP systematic approach): Set of procedures aimed at simplifying the quantification of the CFP for two or more products from the same organisation.

Unlike CFP validation, the CFP systematic approach is a three-year certification, with a cycle of annual surveillance to maintain certification.

CFP study: All activities required to quantify and report on a CFP or partial CFP.

CFP study report: Report documenting the CFP study, presenting the CFP or partial CFP and describing the assumptions made in the study.

CFP product category rules (CFP-PCR): Set of specific rules, requirements and guidelines related to the quantification and reporting of the CFP or partial CFP for one or more product categories.

CHAPTER 3 - CONTRACT

3.1

RINA prepares the offer on the basis of the following information/documents

- name and address of the organisation receiving the activity
- name and address of the client
- location of the production site;
- whether the bid refers to the cradle to gate or cradle to grave life cycle phases;
- agreed scheme(s);
- how many products, types of products, different product sizes;
- description of life cycle phases including a description of the selected use profile and end of life scenarios;
- system boundaries, including the type of system inputs and outputs as elementary flows, criteria for deciding on the treatment of process units;
- whether results are to be made public and how;
- materiality/relevance and the level of reliability required by the client;
- presence of comparative statements; and
- all information reported in the disclosure questionnaire.

Materiality can be defined as individual errors, omissions, misrepresentations or their aggregation may influence the CFP statement and the intended users' decisions.

The materiality threshold established by RINA for reasonable or limited assurance levels is:

1) for Reasonable assurance level: the materiality threshold is set at 5% in relation to the information declared;
2) Limited assurance level: the materiality threshold is set at 10% in relation to the declared information.

3.2

The contract stipulated between RINA and the organisation includes

- the document review of the organisation's documents (including strategic and risk analysis of validation/verification)
- 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 verification request, the organisation is to make the following documentation available to RINA:

- Report of the product carbon footprint declaration according to the reference standard;
- Calculation sheets and formulas;
- Procedures for CFP Systematic Approach (if applicable).

In addition to the above documentation, RINA may, at its discretion, also request additional documentation to be examined that it deems necessary for verification.

CHAPTER 5 – VALIDATION/VERIFICATION EXECUTION

The team reviews the documents to ensure that they meet the agreed verification criteria.

If the team considers that the CFP study report or CFP Systematic Approach documentation does not contain sufficient information to comprehensively complete the document review, it must request the necessary additional data and information from the responsible party. Failure to provide the requested additional information constitutes an impediment to the continuation of the validation/verification.

Through the examination of the documentation, the team initiates and proceeds to the strategic analysis and risk analysis as described below.

Strategic analysis

At the start of the validation/verification, RINA assesses the likely nature, extent and complexity of the validation/verification tasks by performing a strategic analysis of all the activities related to the CFP statement.

The strategic analysis includes the following factors

a) the organisation's control system for identifying and controlling risks in the processing of data that could result in incorrect data in the CFP statement;
b) any changes to the installation during the year (structure of the organisation, product or production changes or process changes) if the CFP statement has already been verified previously;
c) any management system (environmental or other) that the organisation adopts relating to the management or processing of emission data;
d) the type, purpose and complexity of equipment and processes used to generate emissions, including calculation methods
e) the materiality level defined by the organisation.

Risk analysis

Based on the result of the strategic analysis, RINA conducts a risk analysis taking into consideration the sources and scale of any errors, omissions or misrepresentations in order to prioritise the areas and extent of validation/verification of CFP data and information and to provide input to the development of the validation/verification and sampling plan. In developing the risk analysis, the team should at least consider the following:

- the level of detail of available documentation
- the nature of the allocation methods;
- the degree of complexity and extent of system boundaries;
- the representativeness of use and end-of-life scenarios, where applicable.

As a result of the strategic and risk analysis, the verification timeframe and sites to be sampled may be changed from what was defined in the contract review.

Validation/Verification Process

After reviewing the documentation, the team identifies additional topics and aspects (objective evidence) that need to be explored with the organisation.

The validation/verification activities must at least allow sufficient data and information to be obtained to assess the CFP and to verify the reliability of the data collection, processing and control systems.

During the audit, RINA must view the design developed within the software used for the CFP calculation, if any, in order to be able to assess the correctness of the choices made for the CFP calculation. It is not possible to successfully conclude a CFP audit without having been able to verify, under the guidance of the personnel responsible for the project, what has been developed within the software.

The process also requires a site visit when it is a requirement of the supervisory body of the scheme or the accreditation body and in other cases, at the discretion of RINA, depending on the nature of the declaration.

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

In the case of the CFP, site can be considered both the place where the production process is based and where the collection and management of data and information useful for the CFP is carried out.

The team during the visit verifies the congruity between the carbon footprint and the related documentation concerning mainly:

- the physical consistency between the production site and what is described in the CFP study;
- the correct collection of primary data, tracing them from their raw source, through any subsequent processing;
- the accuracy of the calculations;
- whether the data were generated under acceptable conditions;
- whether the calculation methods are suitable and also whether the resulting activities, calculations, measurements, calibrations, etc. are all performed as defined in the monitoring plan;
- the reliability of the model developed in the CFP study.

Validation/verification is carried out on the basis of sufficient sampling to verify the reliability of the data and information.

If the team detects non-conformities, the timing and methodology for follow-up must be agreed with the corrective action manager at the organisation.

The follow-up resulting from the previous verification is documented in the follow-up verification report.

During the validation/verification, the reliability, credibility and accuracy of the monitoring systems and related data, as well as information regarding emissions, shall be assessed, including in particular:

a) the choice and use of measurement methodologies used;
b) calculations to define total emissions
c) how the measuring instruments were used, including calibration
d) any data that has been changed as a result of the verification and the reasons for such changes.

Additional requirements for CFP Systematic Approach certification

In the case of verification for CFP Systematic Approach certification, the team:

- verifies that the organisation is capable of managing the process;
- verifies the correct implementation of the organisation's procedures;
- randomly verifies the conformity of one or more CFP study reports issued by the process itself;
- verifies that the organisation has the necessary competencies available;
- verifies that the organisation is capable of managing:
  a) the organisational aspects;
  b) the collection and processing of information and verification of the need for changes and/or updates;
  c) internal audits;
  d) the preservation of documents and records

Draft Report

Following the on-site visit, the team provides the organisation with a draft Validation/Verification Report summarising the findings that need to be further elaborated, investigated or supplemented by the organisation in order to confirm that the CFP statement meets the criteria/requirements of the agreed scheme.

The organisation must provide any further clarifications or necessary improvements to the report and documentation in order to achieve a positive verification outcome.

Depending on the nature of the improvements/corrections and/or documentation provided, a site visit may be required to verify the correct implementation of the proposed corrective actions.

Findings management

In CFP audits there can be 3 types of findings: CAR (Corrective Action Request), CL (Clarification Request), R (Recommendation).

A Corrective Action Request (CAR) is issued if one of the following situations occurs

- the requirements have not been met,
- errors have been made in assumptions, data or calculation.

A request for clarification (CL) is issued if the information is insufficient or not clear enough to determine whether the applicable requirements have been correctly applied. A CL could then lead to a CAR, should the clarification reveal a non-fulfilment of a requirement of the standard, or be positively closed should the additional information provided show compliance with the standard.

A recommendation (R) is a cue for improvement that can be taken into account for future updates of the carbon footprint.

Final Report

Upon receipt of the organisation's responses and revised documents following the findings, the Draft Validation/Verification Report is revised to reflect the organisation's responses and the team's comments in relation to each finding. The Final Validation/Verification Report is prepared including the final validation/verification opinion.

The Final Validation/Verification Report will be issued once all findings in the draft Validation/Verification Report have been resolved and accepted by RINA.

If the findings are not satisfactorily resolved and accepted

- after 3 months from the first issue of the Draft Validation/Verification Report, or
- after more than 3 revisions.

RINA reserves the right to terminate the contract or to issue the Final Validation/Verification Report and a negative opinion, in agreement with the organisation, without prejudice to the right to receive the agreed fee.

Validation/verification opinion

On the basis of the information collected during validation/verification, RINA presents a Validation/Verification Opinion, for each CFP Statement submitted for validation/verification by the organisation. The Validation/Verification Opinion includes at least one of the following opinions:

- Positive Opinion for assurance level Limited;
- Positive opinion for Reasonable assurance level;
- Negative Opinion.

The Verification Opinion issued for the CFP according to ISO 14067 contains the following information

- the description of the product subject to CFP;
- the CFP-PCR or relevant PCR (hereafter both referred to as "PCR") used, if any, in accordance with the requirements of EN ISO 14067;
- the functional unit (FU), or the declared unit (DU) where provided by the PCR;
- the CFP value expressed in kg (or g) of CO_{2eq} and per UF or UD;
- the time boundaries of the CFP;
- the breakdown of the CFP value for the main life cycle phases (upstream, core, downstream) where present in the reference PCR;
- the production plants included in the study;
- the boundaries of the system in the case of a partial CFP or confirmation that the CFP includes all phases from cradle to grave;
- the phases excluded from the system boundaries, if applicable;

- the reference to the CFP study report

The verification certificate may contain any reference to any GHG offsets undertaken by the company.

Surveillance for CFP Systematic Approach

The CFP Systematic Approach certification is subject to a periodic surveillance activity aimed at assessing the correct implementation of the supporting procedures and the correct development of the individual CFPs implemented during the period since the previous surveillance/verification. This activity will be carried out on the basis of sampling against the individual CFPs implemented by the responsible party.

During the three-year period of validity of the CFP Systematic Approach certification, two surveillance audits are foreseen (one for each year following the year of certification). At least three months prior to the scheduled date of the surveillance audit, the organisation must inform the appointed team of the number of CFPs issued.

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

The validation/verification report and the validation/verification opinion are subject to independent technical review and decision making to ensure that the validation/verification process has been performed in accordance with the agreed scheme/programme, that the procedures for the validation/verification activities have been properly followed and that due professional diligence and judgement have been applied.

The independent technical reviewer also assesses whether the evidence gathered is sufficient to enable RINA to issue a validation/verification opinion with reasonable certainty.

RINA informs the organisation in writing of the conclusions it has reached concerning the validation/verification.

6.3 CFP Systematic Approach

Also in the case of annual surveillance, the verification documentation is subject to assessment by the independent reviewer, who may issue a positive or negative opinion concerning the maintenance of certification.

CHAPTER 7 – MODIFICATION AND WITHDRAWAL OF THE STATEMENT

The General Rules for Validation and Verification of Information Declared in Claims apply.

7.5 Suspension, Reinstatement and Revocation of the CFP Systematic Approach Certification

The validity of the Certificate is suspended in accordance with the "GENERAL CONTRACT CONDITIONS GOVERNING SYSTEM, PRODUCT AND PERSONNEL CERTIFICATION" and in the following specific cases

- if the organisation does not allow the scheduled audits to be conducted at the required frequencies and special audits;
- if non conformities are found in the management system which have not been resolved within the time limits established by RINA
- if the organisation has not complied with the deadlines established for the communication of corrective actions, following non-conformities (major or minor) indicated on the audit report
- if the organisation has made major internal changes to the site/s, moves to another site/s without reporting these changes to RINA;
- if the organisation has made significant modifications to its management system that have not been accepted by RINA;
- in the case of major restructuring of the organisation not communicated to RINA;
- for refusal or obstacle to participation in audits of observers from an accreditation body;
- any justified and serious complaints received by RINA.

The organisation may also request RINA, giving its reasons, to suspend certification for a period generally not exceeding six months and, in any case, not beyond the expiry date of the certificate.

The suspension is notified in writing (PEC or equivalent method), stating the conditions for reinstating certification and the date by which it is to be implemented.

Suspension of validity of the certificate is made public by RINA directly on the website www.rina.org.

Reinstatement of certification is subject to verification that the shortcomings which caused the suspension have been eliminated by means of an in-depth audit to check compliance of the management system with all the

requirements of the reference scheme.

It is notified in writing to the organisation (PEC or equivalent method) and made public by RINA via the www.rina.org web site.

Failure to fulfil the above conditions within the established time limit will lead to revocation of the Certificate of Conformity.

Revocation of the Certificate of Conformity may be decided in accordance with the "GENERAL CONTRACT CONDITIONS GOVERNING SYSTEM, PRODUCT AND PERSONNEL CERTIFICATION" and in the following specific cases

- when circumstances, such as those mentioned for suspension, occur and are judged to be particularly serious;
- if the organisation suspends its activities or services covered by the certified management system for a period generally exceeding six months;
- if the organisation does not accept the new contractual conditions;
- in the case of a multi-site organisation, if the headquarters or one of the sites does not comply with the criteria required to maintain the certificate;
- for any other serious reason, in the judgement of RINA, such as, for example, but not limited to, proven inability of the system to pursue its objectives of compliance with legislative or contractual constraints or product safety.

Revocation of the Certificate of Compliance is notified in writing to the organisation (PEC or equivalent method) and is made public by RINA.

If the organisation wishes to be re-certified after revocation, it must submit a new application following the entire procedure.

7.6 Renouncing CFP Systematic Approach certification

The certified organisation may send a formal communication of relinquishment of certification to RINA, before the expiry date of the Certificate, including the case in which the organisation does not wish to or cannot comply with the new instructions issued by RINA.

On receipt of this communication, RINA initiates the procedure to render the certificate invalid.

In general, within one month from the date of the communication, RINA updates the validity status of the certificate.

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

CHAPTER 10 - AGREED-UPON PROCEDURES (AUP)

RINA may perform an AUP engagement provided that the intended user agrees on the evidence collection activities and assumes responsibility for these procedures.

Should the organisation request, as a result of the service provided, a report on the results of the verification activity without indicating an opinion, RINA will explicitly agree at contractual level with the client, in the offer and in the contract

- the procedures to be performed
- the elements to be verified
- the criteria for collecting evidence;
- the criteria to be used to determine the results;
- the minimum elements to be stated on the report.

If the intended user intends to disclose the results of the agreed procedure to a wider audience (e.g. public statement), any limitations on the disclosure of the information contained in the report should be specified both

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in the agreement signed with the intended user and in the report itself.

CHAPTER 11 – MIXED ENGAGEMENT

A "mixed engagement" is defined as an engagement in which verification and validation activities are carried out simultaneously on the same GHG statement.

For each engagement, it is essential to define between RINA and the organisation:

- the boundaries,
- the methodology applied (verification / validation / AUP),
- and the results obtained from the execution of each type of engagement.

RINA will issue a single opinion at the end of the activities containing the opinions of the engagements as agreed with the client.