GUIDELINES FOR THE VALIDATION AND VERIFICATION OF GREENHOUSE GAS ASSERTIONS

Valid from 9 November 2012
CHAPTER 1 – OVERVIEW

1.1 Scope

These Guidelines define the procedures applied by RINA to validate and verify assertions related to greenhouse gases (GHG), as for example:

- validation and verification of GHG projects;
- verification of GHG inventories and of initiatives aimed at improving GHG management.

Validation and verification of GHG assertions are performed according to the validation and verification criteria/requirements of an agreed system/scheme, these Guidelines and any additional elements indicated by the supervisory body of the system/scheme or by the accreditation body.

For every scheme relative to a GHG assertion, RINA can publish specific rules integrating the requirements of these Guidelines.

Validation is a systematic, independent and documented process for the evaluation of a greenhouse gas assertion in a GHG project plan against agreed validation criteria.

Verification is a systematic, independent and documented process for the evaluation of a greenhouse gas assertion in a GHG report against agreed verification criteria.

RINA applies its current fees and guarantees fairness and uniformity of application.

RINA may legitimately refuse validation and verification requests related to organisations and/or their products/activities that are subject to restriction, suspension or proscription by a public authority.

1.2 Criteria

The criteria/requirements of the main GHG systems or schemes that register, account or manage GHG emissions, removals, GHG emission reductions or GHG removal enhancements normally are available on the websites of the supervisory body of the systems/schemes or by the accreditation bodies.

At present, RINA offers:

- validation and verification of programme of activities (PoAs) and programme activities (CpAs);
- validation and verification of verified emission reduction (VER) projects according to the principles and requirements of the ISO 14064 series of standards;
- in some countries, as for example Bulgaria, approving projects generating emission reduction units under Joint Implementation - Track I procedure;
- World Commission on Dams assessment;
- additional activities asked by the organisation voluntarily or in response to requests for reviews from accreditation/ supervision body or if RINA during the validation or verification of the GHG project determines that the proposed project activity deviates from the criteria/requirements of the agreed system/scheme;
- validation and verification of the SocialCarbon Report for emission reduction projects.

Verification of GHG inventories and of initiatives aimed at improving GHG management

- verification of GHG inventories, initiatives aimed at improving GHG management according to the principles and requirements of the ISO 14064 series of standards.

Verification of a carbon footprint assertion of goods or services

- verification of a carbon footprint of a good or service, according both to the principles and requirements of the reference standard PAS2050:2011 “Specification for the assessment of the life cycle greenhouse gas emissions of goods and services” and/or to the principles and requirements of the reference standard WRI/WBCSD GHG Protocol “Product life cycle accounting and reporting standard”.

1.3 Terminology

The terminology used in these Guidelines is the same as that used in the reference documents available on the website of the supervisory body of the system/scheme or by the accreditation body.
1.4 Principles for validation and verification

RINA recognises key guiding principles of the validation and verification processes and will conduct all the activities to ensure accuracy, conservatism, relevance, credibility, reliability, completeness, consistency, transparency, impartiality, independence, safeguarding against conflicts of interest and confidentiality.

CHAPTER 2 – CONTRACT REVIEW

2.1 Request

Organisations wishing to apply to obtain validation and verification of their GHG assertion must provide RINA with the data related to the assertion, by sending the latest revision of the informative questionnaire form or the same data in another format.

These data will be used by RINA to make its offer.

RINA can proceed with the offer if at least the following data are available:

Validation and verification of GHG projects

- name and address of the organisation (client, subject stipulating the contract with RINA);
- title of the project;
- location of the project site/s;
- indication of the applied methodology(ies);
- validation and verification criteria/requirements of and agreed system/scheme;
- Relative size (in CO2equivalent) of the GHG assertion.

Verification of GHG inventories and of initiatives aimed at improving GHG management

- Name and address of the organisation (client, subject stipulating the contract with RINA);
- Location and characteristics of the GHG assertion (i.e. organisational boundaries);
- Physical infrastructure, activities, technologies and processes of the organisation;
- Site / sites where information and emissions data are stored;
- GHG sources, sinks and/or reservoirs;
- Types of GHG;
- Time period(s);
- Validation and verification criteria/requirements of an agreed system/scheme;
- Relative size (in CO2equivalent) of the GHG assertion.

Verification of a carbon footprint assertion of goods or services

- name and address of the organization (client, subject stipulating the contract with RINA);
- localization of production site;
- whether the assertion refers to life cycle stages from cradle to gate or cradle to grave;
- description of the product system;
- how many products, types of product, different sizes of product, etc;
- description of the stages of the life cycle including a description of the selected use profile and end-of-life scenarios;
- system boundary, including type of inputs and outputs of the system as elementary flows, decision criteria about treatment of unit processes;
- whether the results are intended to be disclosed to the public and in what way;
- presence of comparative assertion.

Before accepting the contract, the organisation must provide all the missing information requested by RINA (for example data related to all the project participants, representatives of the organisation and the consultant data).

2.2 Contract

Organisations must formalise their order by sending RINA the request form or a contract duly signed by the Chief Executive Officer or authorised representative, by way of a power of attorney.

On receipt of the request form or the signed contract and the related documentation/annexes, and after a preliminary review to check their completeness, RINA will appropriately inform the organisation of its acceptance of the order.

The contract stipulated between RINA and the organisation covers:

- Document/desk review of the Organisation documents;
- Follow-up actions (on site visit/assessment and telephone or email interviews);
  - The on-site visit/assessment is always performed when it is a requirement of the supervisory body of the system/scheme or of the accreditation body, it is at the discretion of RINA, in relation to the nature of the assertion in all other cases;
- Any additional services stated in the offer.

CHAPTER 3 – SELECTION OF THE TEAM

3.1 Team assignment

RINA selects the team who will perform the activity and the personnel who will perform the independent technical review on the basis of the knowledge, skills and competency required.

The team is fully independent of all aspects of the assertion and have not assisted in its design or any assertion components.

3.2 Team communication

In advance of the validation or verification, RINA will notify to the organisation in writing of the names of the team members and in case of CDM with attached a summary of the curriculum vitae of each team member; the organisation may object to these appointments, within 5 working days of the notification, giving their reasons.

RINA will reconstitute the team in response to any valid objection.

CHAPTER 4 - VALIDATION AND VERIFICATION OF GHG PROJECTS

4.1 Validation of GHG Projects

RINA will evaluate the project documents and the project’s compliance with the validation criteria/requirements of an agreed system/scheme.

The end result of this process will be a validation report that will identify any areas that need further elaboration or need to be rectified, the nature of the responses provided by the organisation, the means of validation of such responses, clear reference to any resulting changes in the project document or supporting annexes, and express an opinion as to whether the project is valid to claim emission reductions.

4.1.1 Document review

The organisation is to make available to RINA the GHG assertion as well as any information requested by the GHG system/scheme to support the assertion.

Normally, the documents that the organisation shall be required to provide RINA are included in the following, if applicable:
- Project Document/Project Design Document (word and pdf version) drawn up according to the latest version of the format required by the GHG system/scheme (if available);
- Gold Standard Passport (for GS);
- Information regarding public funding;
- Local Stakeholder Consultation report;
- Letter of Approval (LoA) for the proposed project;
- Written approvals of voluntary participation of each Party involved;
- The notification to the Designated National Authority (DNA) of the Host Country and to the United Nations Framework Convention On Climate Change (UNFCCC) (for CDM);
- Monitoring plan;
- Emission Reductions (ERs) calculation spreadsheet;
- Emission Factor calculation spreadsheet;
- Investment analysis calculation spreadsheet;
- Environmental Impact assessment (EIA) and environmental/operational authorisations;
- List of the identification data of the Host Party laws applicable to the proposed project.

RINA may, at its discretion, request also other documents for review apart from those indicated above, considered important for the purpose of validation.

When applicable in relation to the system/scheme agreed, RINA will make the assertion publicly available on the web and during the validation of the project activity, RINA will take into account the comments received during the commenting period.

The team will review the project documents to ensure that they meet the established validation criteria, including the baseline and monitoring methodologies for the project.
Any issues that cannot be sustained by sufficient monitoring, or assumptions that the team cannot fully recognise or approve of will be investigated and tested further.

4.1.2 Follow-up actions

Following the document review and, if applicable, right after the end of the commenting period, the team will identify additional questions and issues (objective evidence) that need to be addressed with the organisation.

The process will also cover key local or international stakeholders that may have important comments to provide.

The process also demands an on-site visit when it is a requirement of the supervisory body of the system/scheme or by the accreditation body, or at the discretion of RINA in relation to the nature of the assertion in all other cases.

The date of the on-site visit will be agreed with the organisation sufficiently in advance and officially confirmed at least one week before.

4.1.3 Draft Validation Report – The Protocol

After the follow-up actions, the team will provide to the organisation a Draft Validation Report - The Protocol that summarises the issues that need to be further elaborated upon, researched or added to by the representatives of the organisation in order to confirm that the project activity meets the requirements and can achieve credible emission reductions.

The findings of this validation phase can be either Corrective Action Requests (CARs), Requests for Clarifications (CLs/CRs) or Forward Action Request (FAR)1.

The organisation must provide additional information to clarify or otherwise make necessary improvements to the project and documentation that would result in a positive validation outcome for the project.

According to the nature of the improvements/corrections and/or the provided documentation, an additional on-site visit could be needed to check the correct implementation of the corrective actions proposed.

4.1.4 Final Validation Report

Upon receipt of responses and modified documents from the organisation to the issues (CLs/CRs and CARs), the Draft Validation Report - The Protocol will be revised to reflect the responses of the representatives of the organisation and comments of the team against each of the issues. The Final Validation Report will be prepared including the final validation opinion.

The Final Validation Report will be issued once all the issues in the Draft Validation Report - The Protocol have been solved by the organisation and accepted by RINA.

If the findings are not satisfactorily solved and accepted:

- after 3 months of the first issuance of the Draft Validation Report - The Protocol or
- there are more than three revisions

RINA reserves the right to terminate the contract or to issue the Final Validation Report and a negative opinion, following agreement with the Organisation, the right to receive the fees agreed being understood.

4.1.5 Independent Technical Review

The following statuses of the report submitted by the team are subjected to an independent technical review, to ensure that the project activity meets all the requirements:

- The Draft Validation Report – The Protocol, in relation to system/scheme;
- The Final Validation Report, always;

The team will revise the report to take into consideration the comments issued during the independent technical review, if any.

4.1.6 Request for registration (for CDM)

Following the positive outcome of the final validation process, RINA will submit, through a dedicated interface, to the CDM Executive Board, the Final Validation Report, along with the supporting documents, as part of the request for registration of a project activity as a proposed CDM project activity.

The Final Validation Report with a negative Validation opinion will be sent to the CDM Executive Board.

A reference number for payment of the registration fee will be received by RINA from the UNFCCC and sent to the organisation to proceed with the due fee payment. Once RINA receives proof of payment from the organisation, it will be forwarded to the UNFCCC that will then proceed with the publication of the registration request.

4.2 Verification of GHG Project

Verification is the periodic independent review and ex post determination of the monitored reductions

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1 For the definition of CAR, CL and FAR see the reference documents in relation to system/scheme
in GHG emissions that have occurred as a result of a project activity, during the verification period. This assessment will:

- ensure that the project activity has been implemented and operated as per the project activity and that all physical features (technology, project equipment and monitoring and metering equipment) of the project are in place;
- ensure that the monitoring report and other supporting documents provided are complete, verifiable and in accordance with applicable requirements;
- ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology;
- evaluate the data recorded and stored as per the monitoring methodology.

The end result of this process will be a verification report, that will identify any areas that need further elaboration or need to be rectified, the nature of the responses provided by representatives of the organisation, the means of verification of such responses and clear references to any resulting changes in the monitoring report or supporting annexes.

**4.2.1 Desk Review**

The organisation is to make available to RINA the GHG assertion as well as any information requested by the GHG systems/schemes to support the assertion.

Normally, the documents that the organisation shall be required to provide RINA are included in the following, if applicable:

- Monitoring Report (MR) (word and pdf version) drawn up according to the latest version of the format required by the GHG system/scheme;
- Project Document/Project Design Document (word and pdf version) registered or approved;
- Monitoring plan;
- Validation report;
- Previous verification reports;
- Sustainability monitoring report (for GS)

RINA may, at its discretion, request also other documents for review apart from those indicated above, considered important for the purpose of verification.

When applicable, RINA will make the assertion publicly available on the web.

The team will review the project documents to ensure that they meet the established verification criteria.

Any issues that cannot be sustained by sufficient monitoring, or assumptions that the team cannot fully recognise or approve of will be investigated and tested further.

**4.2.2 Follow-up actions**

Following the desk review, the team will identify additional questions and issues (aspects and objective evidence) that need to be addressed with the organisation.

The process also demands an on-site assessment when it is a requirement of the supervisory body of the system/scheme or by the accreditation body, or at the discretion of RINA, in relation to the nature of the assertion in all other cases.

In case of CDM this on-site assessment involves:

- An assessment of the implementation and operation of the proposed CDM project activity as per the registered PDD;
- A review of information flows for generating the reporting parameters;
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the PDD;
- A cross-check between information provided in the monitoring report and data from other sources such as plant log books, inventories, purchase records or similar data sources;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

The date of the on-site assessment will be agreed with the organisation sufficiently in advance and officially confirmed at least one week before.
4.2.3 Draft Verification Report – The Protocol

After the follow-up actions, the team will provide to the Organisation a Draft Verification Report - The Protocol that summarises the issues related to the monitoring, implementation or operation of the proposed project activity that could impair the capacity of the proposed project activity to achieve emission reductions or influence the reporting of emission reductions.

The findings of this verification phase can be either Corrective Action Requests (CARs), Requests for Clarifications (CLs/CRs) or Forward Action Request (FAR)\(^2\).

According to the nature of the improvements/corrections and/or the documentation provided, an additional on-site assessment could be needed to check the correct implementation of the corrective actions proposed.

4.2.4 Final Verification Report

Upon receipt of responses and modified documents from the organisation to the issues (CLs/CRs and CARs), the Draft Verification Report - The Protocol will be revised to reflect the responses of the organisation and comments of the team against each of the issues. The Final Verification Report will be prepared including the final verification opinion.

The Final Verification Report will be issued once all the issues in the Draft Verification Report - The Protocol have been solved by the organisation and accepted by RINA.

If the findings are not satisfactorily solved and accepted:

- after 3 months of the first issuance of the Draft Verification Report - The Protocol or
- there are more than three revisions

RINA reserves the right to terminate the contract or to issue the Final Verification Report and a negative opinion, following agreement with the Organisation, the right to receive the fees agreed being understood.

4.2.5 Final Verification/Certification Report

The team includes in the Final Verification Report the written assurance that, during a specified time period, the project activity achieved the GHG reductions, as verified.

The Final Verification Report becomes the Final Verification/Certification Report.

4.2.6 Independent Technical Review

The following statuses of the report submitted by the team are subjected to an independent technical review, to ensure that the project activity meets all the requirements:

- The Draft Verification Report – The Protocol, in relation to system/scheme;
- The Final Verification Report, always;

The team will revise the report to take into consideration the comments issued during the independent technical review, if any.

4.2.7 Request for issuance (for CDM)

Following the positive outcome of the final verification process, RINA will submit, through a dedicated interface, to the CDM Executive Board, the Final Verification/Certification Report, along with the supporting documents and the request for issuance of Certified Emissions Reductions (CERs) .

The Final Verification Report with a negative verification opinion will be sent to the CDM Executive Board.

4.2.8 Verification Statement for VER Projects

Once the verification process has been successfully completed a verification statement is issued to the organisation which contains the information listed in 5.6 and a quantification of GHG emission reductions or removal enhancements of the project, expressed as CO\(_2\)e, for the relevant period of time.

4.3 Additional activities

In addition to validation and verification, RINA can undertake the following additional activities voluntarily, in response to reviews of project activities from the supervisory body of the system/scheme or by the accreditation body or if RINA determines that the proposed project activity deviates from the provisions of an approved methodology or project documentation;

- pre-assessment of a newly/ revised methodology/tool proposed by representatives of the organisation;
- seek clarification on the applicability of an approved methodology;
- request for revision of an approved methodology;
- request for deviation from the approved methodology;

\(^2\) See note 1
at validation, request for deviation when RINA considers that the participant has or intends to deviate from the provisions of an approved methodology;

at verification, request for deviation when a DOE considers that the participant has or intends to deviate from the provisions of registered or approved project documentation;

at verification, if the monitoring plan is not in accordance with the monitoring methodology applied to the registered CDM project activity and/or does not reflect the actual monitoring activity based on the registered PDD, request for revision of deviation from the monitoring plan;

at verification, if RINA identifies that the implementation or operation of a CDM project activity does not conform with the description contained in the registered or approved Project Design Document, notification of the changes request for approval of changes.

CHAPTER 5 – VERIFICATION OF GHG INVENTORIES AND OF INITIATIVES AIMED AT IMPROVING GHG MANAGEMENT

Verification of the GHG inventories and of initiatives aimed at improving GHG management is performed according to the verification criteria of an agreed GHG system/scheme, including the principles and requirements of the ISO 14064 series of standards and of these Guidelines.

RINA assesses the GHG assertion by comparing it with the GHG performance of the organisation in relation to a set of performance criteria, including the following:

the objectives, scope and verification criteria of an agreed system/scheme;

every principle or requirement of a standard of the ISO 14064 series or GHG system/scheme or any GHG performance target which it has adhered to;

the level of proof provided by the objective evidence gathered during verification that must reflect real performance and must be supported by complete, coherent, accurate and transparent GHG information.

The end result of this process will be a verification report, that will identify any areas that need further elaboration or need to be rectified, the nature of the responses provided by the organisation, the means of verification of such responses and clear references to any resulting changes in the report or supporting annexes and express an opinion on greenhouse gas assertion against verification criteria of an agreed system/scheme.

5.1 Document Review

The organisation is to make available to RINA the GHG assertion as well as any information to support the assertion.

Normally, the documents that the organisation shall be required are included in the following:

- Monitoring plan;
- GHG report which describes the inventory GHG or initiative aimed at improving GHG management;
- Calculation sheets and formulas.

RINA may, at its discretion, request also other documents for review apart from those indicated above, considered important for the purpose of verification.

When applicable, RINA will make the assertion publicly available on the web.

The team will review the assertion documents to ensure that they meet the verification criteria of an agreed system/scheme including the principles and requirements of the ISO 14064 series of standards and of these Guidelines.

5.2 Follow-up actions

Following the document review, the team will identify additional questions and issues (objective evidence) that need to be addressed with the organisation.

The process also demands an on-site assessment when it is a requirement of the supervisory body of the system/scheme or by the accreditation body, or at the discretion of RINA in relation to the nature of the assertion in all other cases.

The date of the on-site assessment will be agreed with the organisation sufficiently in advance and officially confirmed at least one week before.

The team during the assessment will:

- check that the monitoring systems and actual procedures conform to the monitoring systems and procedures described in the monitoring plan;
- establish that audit evidence exists to support the emission monitored in the GHG report;
- perform a wide variety of activities, such as retracing data to find omissions or
transcription errors, recomputing emissions and formulas in the calculation sheets to confirm engineering calculations.

5.3 Draft Verification Report

After the follow-up actions, the team will provide to the organisation a Draft Verification Report that summarises the issues\(^3\) that need to be further elaborated upon, researched or added to by the representatives of the organisation in order to confirm that the GHG assertion meets the requirements.

The organisation must provide additional information to clarify or otherwise make necessary improvements to the report and documentation that would result in a positive verification outcome for the project.

According to the nature of the improvements/corrections and/or documentation provided, an on-site assessment may be necessary to verify the correct implementation of the proposed corrective actions.

5.4 Final Verification Report

Upon receipt of responses and modified documents from the organisation to the issues, the Draft Verification Report will be revised to reflect the responses of the organisation and comments of the team against each of the issues. The Final Verification Report will be prepared including the final verification opinion.

If the findings are not satisfactorily solved and accepted:

- after 3 months of the first issuance of the Draft Verification Report - The Protocol or
- there are more than three revisions

RINA reserves the right to terminate the contract or to issue the Final Verification Report and a negative opinion, following agreement with the Organisation, the right to receive the fees agreed being understood.

5.5 Independent Technical Review

The Final Verification Report submitted by the team will be subjected to an independent technical review to ensure that the assertion meets all the requirements.

The team will revise the report to take into consideration the comments issued during the independent technical review, if any.

5.6 Statement

Once the verification process has been successfully completed a verification statement is issued to the organisation which contains the following information:

- name, address and other relevant information concerning the organisation;
- reference to the installations;
- reference to the GHG assertion (date and revision number);
- quantification of GHG emissions or removals;
- compliance with the validation and verification criteria/requirement of an agreed system/scheme, including the principles and requirements of the ISO 14064 series of standards and of these Guidelines;
- the validation or verification statement date;
- an authorised signature;
- the level of assurance achieved;
- conclusions on the GHG assertion, including any qualifications or limitations.

CHAPTER 6 – VERIFICATION OF A CARBON FOOTPRINT ASSERTION OF GOODS OR SERVICES

RINA offers verification of a carbon footprint of a good or service, according both to the principles and requirements of the reference standard PAS2050:2011 “Specification for the assessment of the life cycle greenhouse gas emissions of goods and services” and to the principles and requirements of the reference standard WRI/WBCSD GHG Protocol “Product life cycle accounting and reporting standard”. These two are the two globally recognized standards for product carbon footprint.

The GHG accounting and reporting of a product inventory 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 giving requirements specifically for the assessment of GHG emissions within the life cycle of goods and services.

\(^3\) The classification of the issues refer to the verification criteria of the agreed system/scheme and any additional elements indicated by the supervisory body of the system/scheme or by the accreditation body (eg RG15 ACCREDIA).
6.1 Document review

The organization is to make available to RINA the carbon footprint product assertion as any information to support the assertion.

Normally, the documents that the organisation shall be required to provide RINA are included in the following:

- Report of the product carbon footprint assertion in accordance with the reference standard;
- Calculation sheets and formulas.

RINA may, at its discretion, request also other documents for review apart from those indicated above, considered important for the purpose of verification.

The team will review the assertion documents to ensure that they meet the verification criteria of an agreed system/scheme including the principles of these Guidelines.

6.2 On site visit

Following the document review, the team will identify additional questions and issues (objective evidence) that need to be addressed with the organisation.

The date of the on-site assessment will be agreed with the organisation sufficiently in advance and officially confirmed at least one week before.

The team during the assessment will verify the congruity between the product’s carbon footprint and relating documentation concerning mainly:

- System boundary;
- Functional unit;
- Collecting data and assessment data quality;
- Input/Output;
- Supply of raw material;
- Transport;
- Allocation;
- Use phase and use profile, in case of cradle to gate;
- End of life in case of cradle to grave.

6.3 Draft Verification Report

After the on site visit, the team will provide to the organisation a Draft Verification Report that summarises the issues that need to be further elaborated upon, researched or added to by the organisation in order to confirm that the GHG assertion meets the requirements.

The organisation must provide additional information to clarify or otherwise make necessary improvements to the report and documentation that would result in a positive verification outcome.

According to the nature of the improvements/corrections and/or documentation provided, an on-site assessment may be necessary to verify the correct implementation of the proposed corrective actions.

6.4 Final Verification Report

Upon receipt of responses and modified documents from the organisation to the issues, the Draft Verification Report will be revised to reflect the responses of the organisation and comments of the team against each of the issues. The Final Verification Report will be prepared including the final verification opinion.

If the findings are not satisfactorily solved and accepted:

- after 3 months of the first issuance of the Draft Verification Report - The Protocol or
- there are more than three revisions

RINA reserves the right to terminate the contract or to issue the Final Verification Report and a negative opinion, following agreement with the Organisation, the right to receive the fees agreed being understood.

6.5 Independent Technical Review

The Final Verification Report submitted by the team will be subjected to an independent technical review to ensure that the assertion meets all the requirements.

The team will revise the report to take into consideration the comments issued during the independent technical review, if any.

6.6 Statement

Once the verification process has been successfully completed a verification statement that complies with the verification criteria/requirement of an agreed system/scheme is issued.