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CARBON PRICING ACT 2018
(ACT 23 OF 2018)

CARBON PRICING
(MEASUREMENT, REPORTING AND VERIFICATION)
REGULATIONS 2018

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In exercise of the powers conferred by section 76 of the Carbon Pricing Act 2018, the Minister for the Environment and Water Resources makes the following Regulations:

PART 1
PRELIMINARY

Citation and commencement

1. These Regulations are the Carbon Pricing (Measurement, Reporting and Verification) Regulations 2018 and come into operation on 1 January 2019.

Definitions

2. In these Regulations, unless the context otherwise requires —

“activity data” means data that —

- (a) is about the amount of materials (including fuels and feedstock) consumed or produced by a process or activity; and
- (b) is used or to be used to compute GHG emissions;

“Agency’s website” means the website of the Agency at <http://www.nea.gov.sg>;

“approved monitoring plan”, in relation to a taxable facility, means the most recent monitoring plan approved by the Agency for the taxable facility;

“chief executive”, in relation to a corporation, means any person (by whatever name called) who is —

(a) in the direct employment of, or acting for or by arrangement with the corporation; and

(b) principally responsible for the management and conduct of the business of the corporation in Singapore;

“conversion factor” means a conversion quantity, conversion ratio or conversion fraction used to compute GHG emissions from activity data;

“fuel” means any of the fuels mentioned in the First Schedule to the Energy Conservation (Registrable Corporations) Order 2013 (G.N. No. S 248/2013).

PART 2

EMISSIONS REPORTS AND MONITORING PLANS

Division 1 — Emissions reports

Submission of emissions reports

3. A registered person must submit every emissions report for a business facility that is a reportable facility of the registered person, and its supporting documents, to the Agency for the Agency’s approval in the following manner:

(a) through the Agency’s website, or in such other manner as the Agency may allow in any particular case;

(b) no later than 30 June of the year immediately following the end of the reporting period to which the emissions report relates.

Content of emissions reports

4.—(1) An emissions report for a business facility for a reporting period must —

- (a) be in the form specified by the Agency;
- (b) set out all activity data for the business facility;
- (c) set out the computation of GHG emissions from each GHG emissions stream from the business facility;
- (d) specify the total GHG emissions from the business facility;
- (e) comply with all other requirements specified by the Agency; and
- (f) include all supporting documents in relation to sub-paragraphs (a) to (e).

(2) Where the business facility is a taxable facility, the emissions report must further be based on the approved monitoring plan, and specify whether the computation for each GHG emission stream from the business facility is based on a primary or an alternative method, step or procedure (as specified in the approved monitoring plan).

(3) For the purpose of paragraph (2), subject to paragraph (4), an alternative method, step or procedure may be used in the computation of GHG emissions on any one or more days, and if on more than one day, whether or not the days are continuous, in the period to which the emissions report relates.

(4) Unless the Agency allows in any particular case, the total number of days under paragraph (3) must not exceed 90.

(5) An emissions report and its supporting documents for a business facility of a registered person must be endorsed by the chief executive or an equivalent person of the registered person.

Division 2 — Monitoring plans

Submission of monitoring plans

5.—(1) A registered person must submit every monitoring plan for a business facility that is a taxable facility of the registered person,

and its supporting documents, to the Agency for the Agency's approval in the following manner:

- (a) through the Agency's website, or in such other manner as the Agency may allow in any particular case;
 - (b) by the applicable time in paragraph (2) or (3).
- (2) Where the submission is of a monitoring plan and its supporting documents, neither of which has been revised under regulation 7, the applicable time is not later than 31 December of the year immediately following the trigger year in which the reckonable GHG emissions of the business facility attain the second emissions threshold (or higher).
- (3) Where the submission is of a monitoring plan and its supporting documents, either or both of which are being revised under regulation 7, the applicable time is —
- (a) if the revision was for a change other than a significant change (as defined in regulation 7(3)), not later than 31 January of the year immediately after the year in which the change occurred; and
 - (b) if the revision was for such significant change, within 30 days after the change occurred.

Content of monitoring plans

- 6.—**(1) A monitoring plan for a taxable facility must —
- (a) be in the form specified by the Agency;
 - (b) set out all GHG emissions streams from the taxable facility;
 - (c) set out —
 - (i) every primary method, step and procedure used or to be used to compute the total GHG emissions from the taxable facility; and
 - (ii) every alternative method, step or procedure that is used or to be used if any primary method, step or procedure is no longer suitable or available in any particular circumstances that arise;

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- (d) set out a quality management framework to ensure the integrity of the process of, and the computation of, the total GHG emissions from the taxable facility; and
 - (e) include all supporting documents to substantiate the matters in sub-paragraphs (b), (c) and (d).
- (2) Every method, step and procedure mentioned in paragraph (1)(c) must —
- (a) be appropriate for the taxable facility;
 - (b) enable the total GHG emissions from the taxable facility to be accurately computed; and
 - (c) be based on technical or scientific considerations that establish the appropriateness, accuracy and completeness of the method, step and procedure for the taxable facility.
- (3) The quality management framework mentioned in paragraph (1)(d) must include procedures to ensure all of the following:
- (a) that all GHG emissions sources and streams from the taxable facility are reported and all GHG emissions from the taxable facility are computed;
 - (b) that every method, step and procedure mentioned in paragraph (1)(c) is appropriate, and periodically reviewed to ensure its continued appropriateness;
 - (c) that all data (including activity data) is accurately collected and checked;
 - (d) that the data submitted in the emissions reports for the taxable facility is accurate and complete;
 - (e) that every measurement system, equipment, tool or device used by the registered person to compute the total GHG emissions from the taxable facility is properly maintained and calibrated;
 - (f) that there is no conflict of interest between the person computing the total GHG emissions from the taxable

facility and the person checking the computation, at the time of the checking;

- (g) that a proper record is kept of any change to any method, step or procedure for the collection of data (including activity data) and the computation of the total GHG emissions from the taxable facility.
- (4) The supporting documents mentioned in paragraph (1)(e) must include —
- (a) diagrams showing —
- (i) the location of the GHG emissions streams mentioned in paragraph (1)(b);
 - (ii) the location of any equipment, system, metering instrument and measurement and sampling point used in such GHG emissions streams; and
 - (iii) the flow of any material consumed or produced in such GHG emissions streams;
- (b) documents that substantiate every method, step and procedure mentioned in paragraph (1)(c); and
- (c) where the default conversion factor determined by the Agency is used despite a site specific conversion factor being derivable, an explanation from the registered person as to why the derivation of the site specific conversion factor is impractical.
- (5) The monitoring plan and its supporting documents must be endorsed by the chief executive or an equivalent person of the registered person.

Revision of monitoring plan

7.—(1) A registered person must revise its monitoring plan or any supporting document for a monitoring plan, or both, if there is any change in any of the matters set out in the monitoring plan or supporting document.

(2) Where the change mentioned in paragraph (1) is a significant change, the monitoring plan and its supporting documents, as revised,

must be endorsed by the chief executive or an equivalent person of the registered person.

(3) In paragraph (2), “significant change”, for a monitoring plan relating to a taxable facility, means any of the following if it relates to any reckonable GHG emission:

- (a) a change (including an addition) in any process or activity that results in any such GHG emission that was not previously emitted from a source or stream being emitted, or any such new GHG emissions source or stream, from the taxable facility;
- (b) a change in any materials (including fuels and feedstock) consumed or produced in any process or activity of the taxable facility;
- (c) a change in any primary or alternative method, step or procedure mentioned in regulation 6(1)(c) that is set out in the monitoring plan; but not if the change is, in a case where the default conversion factor determined by the Agency is being used, the Agency changing the default conversion factor.

Assessment of monitoring plans by external auditor

8.—(1) An external auditor appointed by a registered person pursuant to section 13(2) of the Act must have, to the Agency’s satisfaction, sufficient knowledge in and experience with pertinent matters to —

- (a) assess a monitoring plan and its supporting documents for a taxable facility under paragraph (3); and
 - (b) submit a report on an assessment of the monitoring plan and its supporting documents under paragraph (4).
- (2) The pertinent matters for the purpose of paragraph (1) are —
- (a) the measurement, reporting and verification of GHG emissions in an industry in which the taxable facility operates;
 - (b) these Regulations; and

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- (c) any other matter specified by the Agency that is relevant to the assessment of monitoring plans and submission of reports on such assessments.
- (3) The assessment required by paragraph (1)(a) is an assessment as to whether —
- (a) the monitoring plan and its supporting documents are in compliance with these Regulations;
 - (b) the supporting documents are complete and consistent with the monitoring plan; and
 - (c) the monitoring plan has any error in relation to any primary or alternative method, step or procedure used or to be used to compute the total GHG emissions from the taxable facility.
- (4) The report on an assessment required by paragraph (1)(b) must include —
- (a) the objectives and scope of the assessment;
 - (b) the criteria used by the external auditor to assess the monitoring plan, where applicable;
 - (c) the description of any error mentioned in paragraph (3)(c), and how it is resolved;
 - (d) the dates when visits to the taxable facility were made and by whom;
 - (e) any recommendation for any improvement to be made by the registered person; and
 - (f) a statement as to whether —
 - (i) the monitoring plan accurately reflects the processes and activities of the taxable facility; and
 - (ii) the monitoring plan and its supporting documents comply with these Regulations.

*Division 3 — Miscellaneous***Records to be kept**

9.—(1) A registered person must keep and maintain complete and accurate records of the following information and documents in relation to each of its business facilities that are reportable facilities or taxable facilities:

- (a) all monitoring plans and emissions reports, and their supporting documents, that are approved by the Agency for the business facility;
- (b) all information (including data) and documents that the registered person relied on in preparing any monitoring plan or emissions report for the business facility.

(2) The information and documents must be kept for at least 5 years after the date on which the information in question is received or the document in question is received or created, as the case may be.

(3) The registered person may keep and maintain the information and documents mentioned in paragraph (1) in electronic form.

Measurement systems, equipment, tools and devices

10.—(1) A registered person must, in relation to any measurement system, equipment, tool or device used by it to compute the GHG emissions from a business facility of the registered person —

- (a) maintain the same in good working order for optimal operation during the operating hours of the business facility; and
- (b) make the same available for physical inspection if required by the Agency or any authorised officer.

(2) A registered person that fails to comply with paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000.

PART 3

VERIFICATION OF EMISSIONS REPORTS

*Division 1 — Preliminary***Definitions of this Part**

11. In this Part, unless the context otherwise requires —

“complex sector” means an industry sector described in the Schedule;

“control activity” means any act or measure that mitigates any inherent risk;

“control risk” means the risk that any quality management framework provided for in an approved monitoring plan may be applied incorrectly or may fail;

“detection risk”, in relation to an emissions report, means the risk of a verification team not detecting a misstatement in the emissions report, assessed based on the control risks and inherent risks relating to the emissions report;

“inherent risk”, in relation to an emissions report, means the risk of a misstatement in the emissions report arising from the collection, computation and management of data, in the absence of quality control over the collection, computation and management of the data;

“materiality” means the effect of uncorrected misstatements as described in regulation 23(3);

“misstatement” means any error or omission made in an emissions report;

“non-complex sector” means any industry sector that is not a complex sector;

“non-conformity” means any instance in which an emissions report does not conform to the approved monitoring plan applicable to the emissions report;

“pre-verification engagement assessment” means the assessment mentioned in regulation 15(1);

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- “reasonable level of assurance” means a level of verification where a verification team has accumulated sufficient evidence to substantiate a positive verification opinion in its verification report;
- “strategic assessment” means an analysis to determine the nature, scale and complexity of verification activities to be performed in order to verify an emissions report;
- “verification activities” means the activities carried out to verify, to a reasonable level of assurance, an emissions report, including the planning of the activities, and the issuing of the verification report;
- “verification engagement” means an undertaking to verify, to a reasonable level of assurance, an emissions report;
- “verification opinion statement” means the conclusion of the verification process expressing whether the information in an emissions report has been verified to a reasonable level of assurance, given the verification activities performed;
- “verification plan” means a verification plan described in regulation 18(1);
- “verification risk” means the risk of an inaccurate verification opinion statement being issued;
- “verification team” means the verification team appointed by an accredited external auditor under regulation 13 to undertake a verification engagement.

Application of this Part

12. This Part applies to each verification engagement proposed to be undertaken or undertaken (as the case may be), by an accredited external auditor for the purpose of verifying an emissions report for a taxable facility of a registered person, to the extent that the emissions report relates to reckonable GHG emissions of the taxable facility for a reporting period or part determined under section 12 of the Act.

Appointment of verification team

13.—(1) For the purposes of this Part and subject to paragraph (2), the accredited external auditor must appoint a verification team comprising —

- (a) a lead verifier mentioned in regulation 34(2) to lead and manage —
 - (i) the assessment mentioned in regulation 15; and
 - (ii) if the proposed verification engagement is accepted by the accredited external auditor, the verification activities; and
- (b) such additional verifiers as the accredited external auditor thinks necessary.

(2) Where the taxable facility operates in a complex sector, one of the verifiers of the verification team must be an expert in that complex sector mentioned in regulation 34(2).

Appointment of independent reviewer

14.—(1) For each verification engagement proposed or undertaken, the accredited external auditor must appoint an independent reviewer mentioned in regulation 34(2) to identify any errors made by the verification team in the conduct of the verification engagement, including any error in planning, in data sampling and of judgment.

(2) The independent reviewer must not be a member of the verification team and must not undertake any of the verification activities of the verification team.

*Division 2 — Pre-verification engagement assessment***Verification team and conduct of pre-verification engagement assessment**

15.—(1) The accredited external auditor must not undertake the verification engagement for the taxable facility unless the verification team appointed by the accredited external auditor for the verification engagement has assessed that —

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- (a) the accredited external auditor is accredited for the industry sector in which the taxable facility operates;
 - (b) the accredited external auditor and the registered person are independent of each other in relation to the taxable facility in accordance with regulation 37; and
 - (c) the accredited external auditor has the competence, personnel and resources to conduct the verification engagement in accordance with these Regulations, taking into account the nature, scale and complexity of the verification engagement.

(2) The registered person must provide all information and documents to the accredited external auditor that are necessary for the assessment mentioned in paragraph (1).

Notice of verification

16. If the accredited external auditor is able to undertake the verification engagement, the accredited external auditor must —

- (a) notify the registered person in writing of that fact and the date of the start of verification engagement; and
- (b) within 10 working days after the date mentioned in paragraph (a), submit a notice of verification to the Agency, in the form and manner specified by the Agency.

Change in accredited external auditor

17.—(1) If the accredited external auditor ceases to act in the verification engagement before the conclusion of the engagement, the registered person must notify the Agency within 7 working days after the cessation —

- (a) of the cessation; and
- (b) of the reasons for the cessation.

(2) To avoid doubt, this Division applies to any accredited external auditor substituted for the accredited external auditor in paragraph (1) for the verification engagement.

*Division 3 — Planning of verification***Verification plan**

18.—(1) The verification team must, for the purpose of conducting the verification engagement to verify the emissions report to a reasonable level of assurance, develop a verification plan that will minimise the verification risk associated with the verification engagement.

(2) For the purpose of paragraph (1), the verification team must —

- (a) carry out a strategic assessment;
- (b) assess the inherent risks, control risks and detection risks associated with the verification engagement; and
- (c) develop the verification plan based on the assessments mentioned in sub-paragraphs (a) and (b).

(3) The verification plan must include the following:

- (a) a verification programme setting out the timetable for the verification activities to be carried out;
- (b) a data sampling plan setting out the scope and methods of sampling of data underlying the reckonable GHG emissions to which the emissions report relates;
- (c) an assessment of how the verification activities address the inherent risks and control risks, and lower the detection risks;
- (d) the dates of the proposed meetings between the accredited external auditor and the registered person;
- (e) the dates of the proposed site visits to the taxable facility.

(4) The verification activities under the verification plan must be assessed by the independent reviewer to ensure they are commensurate with the findings of the strategic assessment and verification risk assessment.

(5) The verification team must continually update the verification plan based on its findings made in the course of the verification engagement.

Submission of documents relating to planning of verification to Agency

19.—(1) The accredited external auditor must submit to the Agency, no later than 3 months after the date of the start of the verification engagement mentioned in regulation 16(a), a summary of the verification plan for the verification engagement.

- (2) The summary mentioned in paragraph (1) must —
- (a) be in the form specified by the Agency; and
 - (b) be signed by the following:
 - (i) the lead verifier;
 - (ii) if the taxable facility concerned operates in a complex sector, the verifier who is an expert in the complex sector;
 - (iii) the independent reviewer.
- (3) The verification plan (including the data sampling plan) —
- (a) must not be released to the registered person so as not to compromise the objectivity of the verification; and
 - (b) must be made available to the Agency upon request.

Division 4 — Verification

Verification of emissions report

20.—(1) The verification team must, based on the verification plan, assess —

- (a) whether the emissions report complies with the approved monitoring plan; and
 - (b) whether any underlying cause mentioned in regulation 21(2)(b) identified in verifications of emissions reports for prior reporting periods (if any) has been corrected.
- (2) To support the assessment mentioned in paragraph (1), the lead verifier must conduct at least one site visit to the taxable facility,

regardless of the complexity of the processes at the taxable facility or of any previous verification engagement for the taxable facility.

- (3) In verifying the emissions report, the verification team must —
- (a) check for any changes to the taxable facility made during the reporting period that are not reflected in the approved monitoring plan; and
 - (b) inform the Agency of the change within 7 working days after the discovery.

Correction of misstatements and non-conformities

21.—(1) The registered person must correct each misstatement and non-conformity, and their underlying causes (if any), identified by the verification team in the course of the verification engagement.

(2) If the registered person is unable to correct any misstatement, non-conformity or underlying cause before the emissions report is required to be submitted to the Agency, the registered person must —

- (a) before the verification team issues the verification report, explain to the verification team why the registered person is unable to do so; and
- (b) in relation to such underlying cause, correct it before the registered person submits an emissions report for the taxable facility for the next reporting period.

Independent review of verification

22. Before issuing a verification report on the emissions report to the registered person, the verification activities conducted and related information and documents must be reviewed by the independent reviewer to ensure that —

- (a) there are no errors or omissions in the verification report;
- (b) the verification activities conducted by the verification team comply with these Regulations; and
- (c) the evidence gathered through the verification activities supports the verification opinion statement mentioned in regulation 23(2).

Division 5 — Reporting of verification

Verification report

23.—(1) The accredited external auditor must issue a verification report on the verification activities conducted by the verification team —

- (a) in the form specified by the Agency; and
- (b) signed by —
 - (i) the lead verifier;
 - (ii) if the taxable facility concerned operates in a complex sector, the verifier who is an expert in the complex sector; and
 - (iii) the independent reviewer.

(2) The verification report must include a verification opinion statement on the conclusions of the verification team from its verification activities conducted, as follows:

- (a) a positive verification opinion if the verification team is able to state with a reasonable level of assurance that the aggregated error in the total reckonable GHG emissions for the reporting period does not exceed the materiality limit in paragraph (3);
- (b) a negative verification opinion if the verification team is unable to do so.

(3) For the purpose of paragraph (2), the materiality limit is as follows:

- (a) 5% of the total reckonable GHG emissions for the reporting period, for a taxable facility with total reckonable GHG emissions less than 1,500,000 tonnes of carbon dioxide equivalence;
- (b) 2% of the total reckonable GHG emissions for the reporting period, for a taxable facility with total reckonable GHG emissions equal to or more than 1,500,000 tonnes of carbon dioxide equivalence.

(4) For a negative verification opinion statement, the verification team must make a reasonable estimation of the total reckonable GHG emissions from the taxable facility on the basis that the uncorrected misstatements had been corrected.

(5) Nothing in paragraph (4) prevents the Agency from making and relying on its own estimation of the total reckonable GHG emissions from the taxable facility on the basis that the uncorrected misstatements had been corrected.

Submission of verification report

24.—(1) The registered person must submit the emissions report and the verification report (including the supporting documents) to the Agency —

- (a) through the Agency’s website, or in such other manner as the Agency may allow in any particular case; and
- (b) no later than 30 June of the year immediately following the end of the reporting period.

(2) The accredited external auditor must separately submit a copy of the verification report and a summary of the final verification plan to the Agency —

- (a) through the Agency’s website, or in such other manner as the Agency may allow in any particular case; and
- (b) as soon as the verification engagement is completed, but no later than 30 June of the year immediately following the end of the reporting period to which the emissions report relates.

(3) The summary of the final verification plan must be signed by —

- (a) the lead verifier;
- (b) if the taxable facility concerned operates in a complex sector, the verifier who is an expert in the complex sector; and
- (c) the independent reviewer.

Approval of emissions report

25. The Agency is not bound to approve an emissions report by virtue of the verification report for the emissions report having a positive verification opinion statement.

*Division 6 — Miscellaneous***Records to be kept by accredited external auditor**

26.—(1) The accredited external auditor must keep and maintain complete and accurate records in Singapore of the following information and documents in relation to each verification engagement:

- (a) all verification reports (including their supporting documents) that are issued to the registered person;
- (b) all information (including data) and documents that the verification team relied on in planning and conducting the verification engagement;
- (c) all information and documents concerning the evaluations and decisions that allowed the verification team conducting the verification engagement to reach the verification opinion, including all corrected and uncorrected non-conformities and misstatements identified during the verification engagement.

(2) The records mentioned in paragraph (1) must be kept for at least 5 years after the issue of the verification report for the verification engagement.

Provision of information to accredited external auditor

27. The registered person must make available to the accredited external auditor all information and documentation used by the registered person to calculate and report the reckonable GHG emissions from the taxable facility, and other information and documents required under these Regulations, including the following:

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- (a) the approved monitoring plan for the taxable facility, as well as any other versions of the monitoring plan for the taxable facility that are relevant for the verification engagement;
 - (b) the verification report for the previous reporting period;
 - (c) all relevant correspondence with the Agency, in particular information relating to revisions of the monitoring plan for the taxable facility, and methods, steps and procedures to compute the reckonable GHG emissions of the taxable facility;
 - (d) information used for measurement and reporting of reckonable GHG emissions;
 - (e) any other relevant information necessary for the planning and carrying out of the verification engagement.

PART 4

ACCREDITATION AND INDEPENDENCE

Application for accreditation

28. A person may apply to the Agency to be accredited as an accredited external auditor —

- (a) for all non-complex sectors; or
- (b) for all non-complex sectors and any one or more complex sectors.

Criteria for non-complex sector accreditation

29.—(1) The Agency must not accredit a person as an accredited external auditor for all non-complex sectors unless the Agency is satisfied, through documentation provided by the person and interviews with the person and employees of the person, that the person —

- (a) is a Singapore-connected person who maintains premises in Singapore at which it keeps its records for its verification engagements conducted in Singapore;

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- (b) is able to appoint —
- (i) a lead verifier that satisfies the requirements of regulation 31; and
 - (ii) an independent reviewer that satisfies the requirements of regulation 32,
- from amongst the employees of the person or an entity in the group of entities to which the person belongs; and
- (c) has sufficient systems in place —
- (i) to ensure independence and objectivity when performing greenhouse gas verification;
 - (ii) to assess, maintain and document competence, including recruitment, technical training and ongoing performance evaluation of members of the verification team;
 - (iii) to keep and maintain records for each verification engagement in accordance with regulation 26, and to ensure the confidentiality of the records; and
 - (iv) to address revisions, appeals and complaints from a registered person whose emissions report is being verified by the person, as will enable the emissions report to be submitted by the registered person in the time required under these Regulations.
- (2) In this regulation, “Singapore-connected person” means —
- (a) a citizen or permanent resident of Singapore;
 - (b) a body corporate incorporated in Singapore; or
 - (c) an unincorporated body established in Singapore.

Criteria for complex sector accreditation

30. The Agency must not accredit a person as an accredited external auditor for all non-complex sectors and any one or more complex sectors, unless the Agency is satisfied, through documentation provided by the person and interviews with the person and employees of the person, that the person —

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- (a) satisfies the requirements in regulation 29; and
 - (b) for each such complex sector, is able to appoint an expert in the complex sector to which the accreditation relates who satisfies the requirements of regulation 33, from amongst the employees of the person or an entity in the group of entities to which the person belongs.

Requirements for lead verifier

31. To be a lead verifier, an individual must have all of the following:

- (a) knowledge and experience of industrial greenhouse gas related processes and measurement within which the facility operates and the potential greenhouse gas emission sources;
- (b) either —
 - (i) have conducted verification of GHG emissions on at least 3 completed verification engagements at a reasonable level of assurance over the past 4 years; or
 - (ii) have, as a lead verifier or equivalent, completed in the past 3 years at least one verification engagement of GHG emissions reporting at a reasonable level of assurance in a jurisdiction specified by the Agency that requires the measurement and reporting of GHG emissions;
- (c) knowledge of the computation methodologies of emission sources and greenhouse gases specified in relevant international standards or guidelines;
- (d) knowledge of the regulatory requirements in Singapore relating to greenhouse gas measurement, reporting and verification;
- (e) the ability to assess the scope of verification activities required in order to substantiate a reasonable level of assurance;

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- (f) the ability to oversee and manage the verification process and reporting, having sufficient knowledge to assess the quality and completeness of verification activities performed.

Requirements for independent reviewer

- 32.** To be an independent reviewer, an individual must —
- (a) satisfy the requirements to be a lead verifier; or
 - (b) have all of the following:
 - (i) knowledge and experience of industrial greenhouse gas related processes and measurement within which the facility operates and the potential GHG emission sources;
 - (ii) conducted in the past 4 years independent reviews of at least 3 completed verification engagements at a reasonable level of assurance, and at least one verification engagement of GHG emissions;
 - (iii) knowledge of the computation methodologies of emission sources and greenhouse gases specified in relevant international standards or guidelines;
 - (iv) knowledge of the regulatory requirements in Singapore relating to greenhouse gas measurement, reporting and verification;
 - (v) sufficient knowledge to assess the quality and completeness of verification activities performed.

Requirements for complex sector expert

- 33.** To be an expert in a complex sector, an individual must —
- (a) have sufficient knowledge of the complex sector including all of the following:
 - (i) industrial greenhouse gas related processes and measurement for the complex sector and the potential greenhouse gas emission sources;

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- (ii) computation methodologies of emission sources and greenhouse gas specified in international standards or guidelines for the complex sector; and
- (b) have either —
- (i) performed verification activities on at least 3 completed verification engagements of greenhouse gas emissions for facilities within the complex sector at a reasonable level of assurance over the past 4 years; or
 - (ii) sufficient demonstrable operational industry experience within the complex sector.

Award of accreditation

34.—(1) The Agency may award an accreditation for a validity period of (on any one occasion) 3 years from the date of accreditation, subject to the period being reduced or the accreditation being revoked under regulation 35(1), or the accreditation being withdrawn by the person to whom the accreditation is given.

(2) The award must specify the individuals who may be a lead verifier, an independent reviewer and (where applicable) an expert in a complex sector to which the accreditation relates, for any verification engagement undertaken by the accredited external auditor; and only those individuals can perform those roles for the accredited external auditor.

(3) The Agency may, at any time, add to or remove any individual that may be a lead verifier, an independent reviewer or an expert in a complex sector under paragraph (2).

Suspension, revocation of accreditation, etc.

35.—(1) Where the Agency is satisfied that an accredited external auditor no longer satisfies the requirements in regulation 29 or 30 (as the case may be) for its accreditation, or has or is contravening or is likely to contravene any provision in this Part, the Agency may do any one or more of the following:

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- (a) in relation to a contravention or likely contravention, direct the accredited external auditor to take steps to rectify the contravention or desist from the contravention;
 - (b) in any case —
 - (i) suspend the accreditation;
 - (ii) reduce the scope of the accreditation (including the period of accreditation);
 - (iii) without affecting regulation 34(3), remove from the award of accreditation any individual specified under regulation 34(2) that caused or contributed to the contravention or likely contravention; or
 - (iv) revoke the accreditation.

(2) Where the Agency acts under paragraph (1) in relation to an accredited external auditor, the accredited external auditor must, within 5 working days after receipt from the Agency of a notification of the act, inform all registered persons affected by the act, of that act.

Notifications to Agency relating to accreditation

36.—(1) An accredited external auditor must notify the Agency in writing —

- (a) if any lead verifier, independent reviewer or expert in a complex sector specified in the award of accreditation to the accredited external auditor can no longer act as such for the accredited external auditor;
- (b) if any lead verifier, independent reviewer or expert in a complex sector specified in the award of accreditation to the accredited external auditor, being at any time accredited outside of Singapore to act as such, has the accreditation suspended or revoked; and
- (c) if the accredited external auditor no longer meets any requirement in regulation 29 or 30, as the case may be.

(2) The notification must be given to inform the Agency within 7 working days after the relevant circumstance in paragraph (1) has arisen.

Independence between registered person and accredited external auditor

37.—(1) An accredited external auditor (*A*) and a registered person (*R*) are not independent of each other in relation to any taxable facility of *R* in the following circumstances:

- (a) any person in a verification team appointed by *A* to be involved or involved in a verification engagement for the taxable facility has in the last 2 years provided consultancy to *R* relating to the requirements under Part 2;
- (b) any person in a verification team appointed by *A* to be involved or involved in a verification engagement for the taxable facility was, at any time in the last 2 years, personnel of *R* involved in any GHG emissions related work;
- (c) *A* has completed verification engagements for the taxable facility for 6 consecutive reporting periods;
- (d) *A* does not complete a verification engagement for the taxable facility undertaken by *A*;
- (e) *R* is in a position to influence the outcome of the verification engagement for the taxable facility undertaken by *A*.

(2) Paragraph (1)(c) ceases to apply in relation to any such 6 consecutive reporting periods if, at the end of the 6 consecutive reporting periods in question, there is at least one reporting period for which the verification engagement for the taxable facility is undertaken and completed by an accredited external auditor other than *A*.

(3) Paragraph (1)(d) ceases to apply to any such uncompleted verification engagement if, after the reporting period for the uncompleted verification engagement, there is at least one reporting period for which the verification engagement for the taxable facility is undertaken and completed by an accredited external auditor other than *A*.

(4) *A* must at all times throughout the verification engagement for the taxable facility ensure its objectivity and its independence from *R* in relation to the taxable facility.

(5) Where *A* becomes aware of a conflict of interest which could compromise its objectivity or independence under paragraph (4), *A* must —

- (a) declare the conflict to the Agency, within 7 working days after the discovery of the conflict;
- (b) suspend all verification activities under the verification engagement until such time as the conflict is resolved; and
- (c) notify the Agency of the resolution of the conflict within 7 working days after the resolution.

PART 5

ENFORCEMENT

Surveillance by Agency

38.—(1) An accredited external auditor that has undertaken a verification engagement for a registered person must —

- (a) notify the Agency of every proposed site visit, for purposes of the verification engagement, at least 7 working days before the site visit, whether or not the site visit is specified in the summary of the verification plan submitted to the Agency under regulation 19; and
- (b) as may be required by the Agency, inform the Agency of any meeting —
 - (i) at which a verification team of the accredited external auditor will be discussing matters relating to, or conducting, any verification activity for the verification engagement; or
 - (ii) which the verification team or any member of the verification team is to have with a registered person for the purposes of a verification engagement.

(2) For purposes of auditing the verification activities conducted by a verification team of an accredited external auditor, the Agency may accompany a verification team of the accredited external auditor on any site visit to a taxable facility, and attend any meeting mentioned in paragraph (1)(b).

(3) For the purpose of paragraph (2) —

- (a) the accredited external auditor must make arrangements with the registered person of the taxable facility for the Agency to attend at the premises of the registered person, as may be necessary;
- (b) the registered person must permit the Agency to attend at the premises of the registered person; and
- (c) the verification team and the registered person must cooperate with the Agency during the audit.

(4) Nothing in this regulation affects Division 1 of Part 8 of the Act.

THE SCHEDULE

Regulation 11

COMPLEX SECTORS

1. Refining of oil and gas, and large scale manufacture of chemical products.
2. Manufacture (other than large scale manufacture) of chemical products.
3. Manufacture of semiconductor devices and wafers.

Made on 10 December 2018.

ALBERT CHUA
*Permanent Secretary,
Ministry of the Environment and
Water Resources,
Singapore.*

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