Joint Crediting Mechanism Guidelines for Validation and Verification

CONTENTS

1.	Obj	bjectives3					
2.	Sco	Scope and applicability.					
3.	Nor	Normative references					
4.	Terr	Terms and definitions					
5.	validation and verification procedures	5					
	5.1.	San	npling	6			
6.	Vali	idatio	on requirements	6			
	6.1.	Gen	neral requirements	6			
	6.1.	1.	Validation approach	6			
	6.1.	2.	Means of validation	6			
	6.2.	Proj	ject design document form	7			
	6.3.	Proj	ject description	7			
	6.4.	App	olication of approved methodology(ies)	8			
	6.5.	Emi	ission sources and calculation of emission reductions	8			
	6.6.	Env	rironmental impact assessment	9			
	6.7.	Loc	al stakeholder consultation	10			
	6.8.	Moı	nitoring	10			
	6.9.	Pub	lic inputs	11			
	6.10.	Mod	dalities of communications	11			
	6.11.	Avo	sidance of double registration	12			
	6.12.	Star	t of operation	13			
7.	Vali	idatio	on report	13			
8.	Ver	ificat	tion requirements	14			
	8.1.	Gen	neral requirements	14			
	8.1.	1.	Verification approach	14			
	8.1.	2.	Means of verification	15			
	8.1.	3.	Level of assurance	16			
	8.1.	4.	Materiality	16			
	8.2.	Veri	ification of compliance	16			
	8.2.	1.	Compliance of the project implementation with the eligibility criteria of the app	olied			
			methodology	16			
	8.2.	2.	Assessment of the project implementation against the registered PDD or	any			
			approved revised PDD	17			

	8.2.3.	Compliance of calibration frequency and correction of measured value	s with
		related requirements	17
	8.2.4.	Assessment of data and calculation of GHG emission reductions	18
	8.2.5.	Assessment of avoidance of double registration	19
	8.3. Pos	t registration changes	20
9.	Verifica	tion report	20

1. Objectives

- 1. The objectives of the "Joint Crediting Mechanism Guidelines for Validation and Verification" (hereinafter referred to as these Guidelines) are to:
 - (a) Enhance consistency and clarity of minimum requirements for all types of Joint Crediting Mechanism (hereinafter referred to as "JCM") validation and verification activities;
 - (b) Enhance the quality and consistency in the preparation, execution, and the reporting of JCM validation and verification activities.

2. Scope and applicability

- 2. These Guidelines are applicable to third-party entities (hereinafter referred to as the "TPEs") that are under contractual arrangement with project participants to validate or verify any JCM projects based on JCM methodologies previously approved by Joint Committee.
- 3. These Guidelines describe standards which are requirements to be met, except guidance indicated with terms "should" and "may" as defined in paragraph 105 below.

3. Normative references

- 4. The following referenced documents are indispensable for the application of these Guidelines:
 - (a) "ISO 14064-3:2019 Greenhouse gases -- Part 3: Specification with guidance for the verification and validation of greenhouse gas statements" (hereinafter referred to as the "ISO 14064-3") or as a provisional measure, "ISO 14064-3:2006 Greenhouse gases Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions" until the end of 2023 (hereinafter referred to as the "ISO 14064-3");
 - (b) "Joint Crediting Mechanism Project Cycle Procedure" (hereinafter referred to as the "Project Cycle Procedure");
 - (c) "Joint Crediting Mechanism Guidelines for Developing Project Design Document and Monitoring Report" (hereinafter referred to as the "PDD and Monitoring Guidelines").

4. Terms and definitions

- 5. Terms in these Guidelines other than those defined below are defined in Section A of Attachment 2 of the "Memorandum of Cooperation on the Joint Crediting Mechanism between the Government of Japan and the Government of the Kingdom of Thailand"
 - (a) Validation is the process of independent evaluation of a proposed JCM project by a TPE against these Guidelines.

- (b) Verification is the periodic independent review and ex post determination by a TPE of the monitored GHG emissions reductions or removals for a specific monitoring period of a result of a registered JCM project conducted by a third-party entity during the verification period.
- (c) A Corrective Action Request (CAR) is a request raised by the TPE to project participants during validation or verification in cases such as when there has been a mistake, the validation or verification requirements not been met or there is a risk that the emission reductions cannot be monitored or calculated.
- (d) A Clarification Request (CL) is a request raised by the TPE to project participants during validation or verification when the information provided is insufficient or unclear.
- (e) A Forward Action Request (FAR) is a request raised by the TPE to project participants during validation to identify issues that require review during the first verification of the project, or during verification if monitoring and reporting require attention and/or adjustment for the next verification.
- (f) Level of assurance is a degree of assurance the Joint Committee requires in a verification.
- (g) Materiality is the concept used for validation and verification in line with ISO 14064-3:2019. The threshold of materiality is set at five (5) percent of emission reductions.
- (h) Material misstatement is issued by the TPE when it is found that information related to GHG figures in project design documents, and GHG emission monitoring reports are misrepresented and affect the materiality reported in regard to the amount of GHG reduction.
- (i) Misstatement is issued by the TPE when it is found that information related to GHG figures in project design documents and GHG emission monitoring reports are inaccurate and affects the materiality reported in regard to the amount of GHG reduction.
- (j) Non-conformity is issued by the TPE when it is found that the information reported in the project design documents and the monitoring reports on GHG emissions with actions or evidence of incompliance found against the criteria and requirements of the JCM project including JCM methodology that the project participant chooses to use.
- (f) The following terms apply in these Guidelines:
 - (g)(k) (a) "Should" is used to indicate that among several possibilities, one course of action is recommended as particularly suitable;
 - (h)(l) (b) "May" is used to indicate what is permitted.
- 5. Other Tterms in these Guidelines are defined in Section A of Attachment 2 of the

"Memorandum of Cooperation on the Joint Crediting Mechanism between the Government of Japan and the Government of the Kingdom of Thailand" "JCM Glossary of Terms" available on the JCM website.

Level of assurance is a degree of assurance the Joint Committee requires in a verification.

5. General validation and verification procedures

- Validation and/or verification commence(s) when the TPE enters into contract for validation and/or verification with the project participant.
- 7. Validation and verification of the project may be conducted by the same TPE.
- Validation and verification may be conducted either simultaneously or separately.
- 9. The TPE selects a competent team to perform the validation and verification of the project.
- 10. In carrying out its validation and verification work, the TPE:
 - (a) Follows these Guidelines and integrates its mattersprovisions into the TPE's own quality management systems;
 - (b) Applies the most recent decisions by the Joint Committee;
 - (c) Assesses the accuracy, conservativeness, relevance, completeness, consistency, and transparency of the information provided by project participants;
 - (d) Determines whether information provided by the project participants is reliable and credible;1
 - (e) Applies consistent validation and verification criteria:
 - To the requirements of the applicable approved methodology; (i)
 - (ii) Among projects with similar characteristics such as a similar application of the approved methodology, use of technology, time period or region;
 - To expert judgments, over time and among projects.
 - Bases its findings and conclusions on objective evidence and conducts all validation and verification activities in line with JCM rules and guidelines;
 - (g) Does not omit evidence that is likely to alter the validation and verification opinion;
 - (h) Presents information in the validation and verification reports in a factual, neutral and coherent manner, documents all assumptions, provides references to background material, and identifies changes made to documentation;
 - Safeguards the confidentiality of all information obtained or created during validation or verification.

¹ Information is credible if it is authentic and is able to inspire belief or trust, and the willingness of persons to accept the quality of evidence. Information is reliable if the quality of evidence is accurate and credible and able to yield the same results on a repeated basis.

5.1. Sampling

11. Where the TPE applies sampling as a part of its validation and verification activities, the TPE samples in line with the "Standard for sampling and surveys for CDM project activities and programme of activities" for large scale CDM projects.

6. Validation requirements

6.1. General requirements

6.1.1. Validation approach

- 12. In carrying out its validation activities, the TPE:
 - (a) Determines whether the proposed JCM project complies with the requirements of the applied methodology(ies), these Guidelines and decisions by the Joint Committee:
 - (b) Assesses the claims and assumptions made in the project design document (hereinafter referred to as "PDD") and modalities of communication statement (hereinafter referred to as "MoC"). The evidence used in this assessment is not limited to that provided by the project participants.

6.1.2. Means of validation

- 13. The TPE assesses the information provided by the project participants.
- 14. In assessing information, the TPE applies the means of validation specified throughout these Guidelines, including but not limited to:
 - (a) Document review;
 - (b) Follow-up actions (e.g. on-site visit and interviews by telephone and/or email) as deemed necessary;
 - (c) Reference to available information relating to projects or technologies similar to the proposed JCM project under validation.
- 15. Where no specific means of validation is specified, the TPE applies appropriate auditing techniques.

Corrective action requests, clarification requests, and forward action requests

- 16. During the validation of a project, if the TPE identifies issues that require further elaboration, research or expansion in order to determine whether the project meets the validation requirements, the TPE ensures that these issues are accurately identified, formulated, discussed and concluded in the validation report.
- 17. The TPE raises a CAR if one of the following situations occur:
 - (a) The project participants have made mistakes in the PDD and the MoC;
 - (b) The applicable validation requirements as defined in these Guidelines have not been

met:

- (c) There is a risk that emission reductions cannot be monitored or calculated.
- 18. The TPE raises a CL if information is insufficient or not clear enough to determine whether the validation requirements have been met.
- 19. The TPE raises a FAR during validation to identify issues related to project implementation that require review during the first and subsequent verifications of the project. The TPE does not raise a FAR regarding issues which can be concluded before verification.
- 20. The TPE resolves or "closes out" CARs and CLs only if the project participants modify the project design, rectify the PDD or provide additional explanations or evidence that satisfy the TPE's concerns. If this is not done, the TPE does not provide a positive validation opinion.
- 21. The TPE reports on all CARs, CLs and FARs in its validation report. This reporting explains the issues raised, the responses provided by the project participants, the means of validation of such responses and references to any resulting changes in the PDD or supporting attachmentsannexes.

6.2. Project design document form

Validation requirement

22. The TPE determines whether the PDD was completed using the latest version of the PDD forms appropriate to the type of project and drafted in line with the PDD and Monitoring Guidelines.

Reporting requirements

23. The TPE provides a statement regarding the compliance of the PDD with relevant forms and guidance.

6.3. Project description

Validation requirement

24. The TPE determines whether the description of the proposed JCM project in the PDD is accurate, complete, and provides an understanding of the proposed JCM project.

Means of validation

25. The TPE should conduct an on-site visit as deemed necessary. For proposed JCM projects for which the TPE does not undertake an on-site inspection, the reasons for this are justified. The TPE may apply a sampling approach as deemed appropriate.

Reporting requirements

26. The TPE:

- (a) Describes the process conducted to validate the accuracy and completeness of the project description;
- (b) Provides an opinion on the accuracy and completeness of the project description;
- (c) Provides a justification if it has not conducted an on-site visit.

6.4. Application of approved methodology(ies)

Validation requirement

27. The TPE validates that the project is eligible for applying selected methodology and that the applied version is valid at the time of submission of the proposed JCM project for validation.

Means of validation

- 28. The TPE determines whether the methodology is correctly quoted and applied by comparing it with the actual text of the applicable version of the methodology.
- 29. If the PDD of a proposed JCM project is based on a previous version of a methodology whose validity has expired, the TPE requests the project participants to provide a revised PDD in line with the Project Cycle Procedure.
- 30. The TPE determines whether the project meets each eligibility criterion of the approved methodology or any other approved methodology component if referred to therein. This is done by checking the documentation referred to in the PDD and by reviewing comparable information as deemed necessary to confirm that the project meets the eligibility criteria of the methodology.

Reporting requirements

31. For each eligibility criterion listed in the approved methodology applied, the TPE describes the steps taken to assess the relevant information contained in the PDD against these criteria.

6.5. Emission sources and calculation of emission reductions

<u>Validation requirement</u>

- 32. The TPE determines whether all relevant GHG emission sources covered in the methodology are addressed for the purpose of calculating project emissions and reference emissions for the proposed JCM project.
- 33. The TPE determines whether the values for project specific parameters to be fixed *ex ante* listed in the Monitoring Plan Sheet are appropriate, if applicable.

Means of validation

34. The TPE confirms the emission sources and GHGs based on documented evidence and corroborates it by a site visit where required.

- 35. If the methodology allows project participants to choose whether a source or gas is to be included, the TPE determines whether the project participants have justified that choice. The TPE determines whether the justification provided is reasonable, based on an assessment of supporting documented evidence provided by the project participants and corroborated by observations if required.
- 36. The TPE ensures that the Monitoring Spreadsheet is not altered, and its required fields are appropriately filled in.
- 37. If values for project specific parameters are fixed *ex ante*, the TPE determines whether all data sources and assumptions are appropriate and calculations are correct as applicable to the proposed JCM project.

Reporting requirements

- 38. The TPE describes how the validation of emission sources and GHG types has been performed, by detailing the documentation assessed and by describing its observations.
- 39. The TPE states whether the selected emission sources and GHG types are justified for the JCM project. Should the TPE identify emission sources that will be affected by the implementation of the proposed JCM project and which are significantly and reasonably attributable to the project and are not addressed by the applied approved methodology, the TPE informs the Joint Committee and the project participants of such findings by electronic means.
- 40. The TPE describes the steps taken to assess values for project specific parameters to be fixed *ex ante* in the Monitoring Plan Sheet and intermediate processes to derive the values. The TPE provides an opinion as to whether those are considered reasonable in the context of the proposed JCM project.

6.6. Environmental impact assessment

Validation requirement

41. The TPE determines whether the project participants conducted an environmental impact assessment, if required by the Kingdom of Thailand, in line with the Thai procedures.

Means of validation

42. The TPE assesses the above requirements by means of a document review and/or using local official sources and expertise.

Reporting requirements

43. The TPE indicates whether the project participants have conducted an environmental impact assessment in line with procedures as required by Kingdom of Thailand.

6.7. Local stakeholder consultation

Validation requirement

44. The TPE determines whether the project participants have completed a local stakeholder consultation process and that due steps were taken to engage stakeholders and solicit comments for the proposed project.

Means of validation

- 45. The TPE determines, by means of document review and interviews with local stakeholders as appropriate, whether:
 - (a) Comments have been invited from local stakeholders that are relevant for the proposed project;
 - (b) The summary of the comments received as provided in the PDD is complete;
 - (c) The project participants have taken due account of all comments received and have described this process in the PDD.

Reporting requirements

46. The TPE:

- (a) Describes the steps taken to assess the adequacy of the local stakeholder consultation;
- (b) Provides an opinion on the adequacy of the local stakeholder consultation.

6.8. Monitoring

Validation requirement

- 47. The TPE determines whether the description of the monitoring plan (Monitoring Plan Sheet and Monitoring Structure Sheet) is based on the approved methodology and/or PDD and Monitoring Guidelines.
- 48. The TPE determines whether the monitoring points for measurement are appropriate, as well as whether the types of equipment to be installed are appropriate if necessary.

Means of validation

- 49. The TPE applies a two-step process to meet the above requirements:
 - (a) To assess compliance of the monitoring plan with the approved methodology and/or PDD and Monitoring Guidelines, the TPE:
 - (i) Identifies the list of parameters required by the applied methodology by means of document review;
 - (ii) Confirms that they are described and that the means of monitoring described

in the plan complies with the requirements of the methodology.

- (b) To assess the implementation of the plan the TPE assesses whether:
 - (i) The monitoring structure described in the Monitoring Structure Sheet of the monitoring plan are feasible within the project design;
 - (ii) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient for *ex post* reporting and verification.

Reporting requirements

50. The TPE:

- (a) States its opinion on the compliance of the described monitoring plan with the requirements of the methodology and/or PDD and Monitoring Guidelines;
- (b) States its opinion on the project participants' ability to implement the described monitoring plan including feasibility of monitoring structure.

6.9. Public inputs

Validation requirement

51. The TPE ensures that all inputs on the PDD of the proposed JCM project submitted in line with the Project Cycle Procedure are taken into due account by the project participants.

Means of validation

- 52. The TPE reviews all inputs on the PDD of the proposed JCM project submitted in line with the Project Cycle Procedure.
- 53. The TPE interviews with the project participants as necessary to determine whether the project participants have taken due account of the public inputs.

Reporting requirement

54. The TPE reports the details of the actions taken to take due account of the inputs received during the public inputs.

6.10. Modalities of communications

Validation requirement

- 55. The TPE validates the corporate identity of all project participants and a focal point included in the MoC, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories.
- 56. The TPE validates that the MoC has been correctly completed and duly authorized.

Means of validation

- 57. The TPE validates the requirements delineated in paragraph 55 above through:
 - (a) Directly checking evidence for corporate, personal identity and other relevant documentation;
 - (b) Notarized documentation; or
 - (c) Written confirmation from the project participant that submits to it the MoC that all corporate and personal details, including specimen signatures, are valid and accurate.
- 58. When the TPE validates identity by applying paragraph 57(c) above, the TPE ensures that the MoC is received from a project participant with whom the TPE has a contractual relationship.
- 59. When the TPE validates identity by applying paragraph 57(c) above, the TPE ensures that the official who submits the MoC to the TPE and the official who signed the written confirmation (if a different person) is/are duly authorized to do so on behalf of the respective project participant.
- 60. If the TPE is unable to validate the requirements by applying paragraph 57 (a), (b) or (c) above then the TPE may perform further validation activities in order to confirm that the corporate and personal details, employment status and specimen signatures included in the MoC are valid and accurate and comply with the requirements of this section.
- 61. The TPE checks that:
 - (a) The latest version of the form for the MoC has been used;
 - (b) The information required as per the form for the MoC is correctly completed.

Reporting requirements

- 62. The TPE describes how it has performed due diligence on the MoC in line with the requirements established in these Guidelines.
- 63. The TPE describes how the MoC complies with all relevant forms and requirements.

6.11. Avoidance of double registration

Validation requirement

64. The TPE determines whether the proposed JCM project is not registered under other international climate mitigation GHG mitigation crediting mechanisms.

Means of validation

- 65. The TPE receives a written confirmation in the MoC from the project participants that the proposed JCM project is not registered under other GHG mitigation international climate mitigationcrediting —mechanisms.
- 66. In addition to the above, the TPE conducts, at a minimum, a search on the websites of CDM

and JI to check whether the projects with similar technology and location have been registered. When projects with similar technology and location are found, the TPE ensures, through document review and/or interviews with the project participants on whether the proposed JCM project differs from projects registered under other GHG mitigation international climate mitigation crediting mechanisms.

Reporting requirements

67. The TPE provides an opinion on whether the proposed JCM project is not registered under other-international climate mitigation GHG mitigation crediting mechanisms.

6.12. Start of operation

<u>Validation requirement</u>

68. The TPE determines whether the start of the operating date of the proposed JCM project does not predate January 1, 2013.

Means of validation

69. The TPE conducts a review of documents and records of operation and performance as appropriate. The TPE should conduct an on-site visit as deemed necessary.

Reporting requirements

70. The TPE provides an opinion on the start of the operating date of the proposed JCM project.

7. Validation report

- 71. The TPE reports the results of its assessment in a validation report.
- 72. The TPE states in the validation report either of the following final validation opinion:
 - (a) A positive validation opinion with a date of submission; or
 - (b) A negative validation opinion explaining the reason for its opinion if the TPE determines that the proposed JCM project does not fulfill the applicable JCM requirements or the information provided by the project participants is insufficient.
- 73. The validation report gives an overview of the validation conclusions and the validation process used by the TPE. All validation findings are identified and justified.
- 74. In its validation report, the TPE provides the following:
 - (a) A summary of the validation process and its conclusions;
 - (b) All its applied approaches, findings and conclusions;
 - (c) Information on public inputs carried out by the Joint Committee, including dates and how inputs received have been taken into account by the project participants;
 - (d) Responses of the project participants to CARs and CLs, and discussions on and

- revisions to project documentation;
- (e) A list of interviewees and documents reviewed;
- (f) Details of the validation team, technical experts, internal technical reviewers involved, together with their roles in the validation activity and details of who conducted the on-site visit;
- (g) Information on quality control within the team and in the validation process;
- (h) Appointment certificates or curricula vitae of the TPE's validation team members, technical experts and internal technical reviewers for the project.
- 75. The TPE provides the project participants with the report along with the supporting documents, and informs the Joint Committee of the outcome.

8. Verification requirements

8.1. General requirements

8.1.1. Verification approach

- 76. In carrying out its verification activities, a TPE determines whether the project complies with the requirements of the applied methodology(ies), these Guidelines, and decisions by the Joint Committee.
- 77. Main focus of verification activities are given to the assessment of the following aspects:
 - (a) The eligibility criteria which are stipulated in the applied methodology of implemented projects are satisfied;
 - (b) The data used in monitoring reports is credible and reliable;
 - (c) Double registration is avoided;
 - (d) There are no post registration changes which prevent the use of the applied methodology.
- 78. The assessment described in paragraph 77 above involves a review of relevant documentation as well as an on-site visit(s) at least for the first verification.
- 79. In addition to the documentation concerning monitoring activity the TPE reviews:
 - (a) The registered PDD, including any approved changes from the registered PDD and the corresponding validation opinion;
 - (b) The validated PDD in case validation and verification are conducted simultaneously and the corresponding validation opinion;
 - (c) The validation report;
 - (d) Previous verification reports, if any;
 - (e) The applied methodology;
 - (f) The monitoring report to verify that it is as per the corresponding Monitoring Report Sheet to the applied methodology;
 - (g) Any other information and references relevant to the project's emission reductions

(e.g. IPCC reports, data on laboratory analysis and national regulations);

- (h) The written confirmation of the avoidance of double registration.
- 80. In addition to reviewing the monitoring documentation, the TPE determines whether the project participants have addressed the FARs identified during validation or previous verification(s).

Quality of evidence

- 81. When verifying the reported emission reductions, the TPE confirms that there is an audit trail that contains the evidence and records that validate or invalidate the stated values in the Monitoring Report Sheet. It includes the source documents that form the basis for calculations and other information underlying the emission reductions.
- 82. When assessing the audit trail, the TPE:
 - (a) Addresses whether there is sufficient evidence available, both in terms of frequency (time period between evidence) and coverage (in covering the full monitoring period);
 - (b) Addresses the source and nature of the evidence (external or internal, oral or documented).
- 83. The TPE only verifies emission reductions that are based on verifiable evidence.

8.1.2. Means of verification

- 84. The TPE assesses the information provided by the project participants.
- 85. In assessing information, the TPE applies the means of verification specified throughout these Guidelines, including but not limited to:
 - (a) Document review; and
 - (b) On-site assessment.
- 86. Where no specific means of verification is specified, the TPE applies appropriate auditing techniques.

Corrective action requests, clarification requests, and forward action requests

- 87. The TPE identifies, discusses and concludes in the verification report issues related to the monitoring, implementation and operations of the registered/validated project that could impair the capacity of the registered/validated project to achieve emission reductions or influence the monitoring and reporting of emission reductions.
- 88. The TPE raises a CAR if one of the following situations occur:
 - (a) Non-compliance with the eligibility criteria of the applied methodology is found in implementation and operation of the project, or if the evidence provided to prove conformity is insufficient;

- (b) Modifications, which prevent the use of the applied methodology, to the implementation, operation and monitoring of the registered/validated project has not been sufficiently documented by the project participants;
- (c) Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions; or
- (d) Issues identified in a FAR during validation or previous verification(s) to be verified have not been resolved by the project participants.
- 89. The TPE raises a CL if information is insufficient or not clear enough to determine whether the applicable requirements of the applied methodology and the PDD have been met.
- 90. All CARs and CLs raised by the TPE during verification are resolved prior to submitting a request for issuance of credits.
- 91. The TPE raises a FAR during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.
- 92. The TPE reports on all CARs, CLs and FARs in its verification report. This reporting is conducted in a transparent manner that allows the reader to understand the issue raised, the responses provided by the project participants, the means of verification of such responses and references to any resulting changes in the monitoring report or supporting <a href="https://dx.new.org/attachments.new.org/at

8.1.3. Level of assurance

93. The TPE applies the reasonable assurance level for verification in line with ISO 14064-3:20062019.

8.1.4. Materiality

- 94. The TPE uses the concept of materiality for verification in line with ISO 14064-3:20192006.
- 95. The threshold of materiality for verification is set at five (5) percent of emission reductions.

8.2. Verification of compliance

8.2.1. Compliance of the project implementation with the eligibility criteria of the applied methodology

Verification requirement

96. The TPE determines the conformity of the actual project and its operation with the eligibility criteria of the applied methodology.

Means of verification

97. The TPE assesses, by means of an on-site visit, that physical features of the project are in place and that the project participants have operated the project as per the eligibility criteria

of the applied methodology. If an on-site visit is not conducted after the first verification, the TPE justifies the rationale of the decision.

Reporting requirements

98. For each monitoring period, the TPE reports the compliance with the eligibility criteria of the applied methodology.

8.2.2. Assessment of the project implementation against the registered PDD or any approved revised PDD

Verification requirement

99. The TPE assesses the status of the actual project and its operation with the registered/validated PDD or any approved revised PDD.

Means of verification

100. The TPE assesses, by means of an on-site visit at least for the first verification, that physical features of the project in the registered/validated PDD are in place and that the project participants have operated the project as per the registered/validated PDD or any approved revised PDD.

Reporting requirements

101. For each monitoring period, the TPE reports changes from the registered or validated PDD or any approved revised PDD.

8.2.3. Compliance of calibration frequency and correction of measured values with related requirements

Verification requirement

102. If monitoring of parameters related to the GHG emissions reductions of a project has been conducted by measuring equipments (monitoring Option C defined in the PDD and Monitoring Guidelines), the TPE determines whether the measuring equipments have been properly calibrated in line with the monitoring plan and whether measured values are properly corrected, where necessary, to calculate emission reductions in line with the PDD and Monitoring Guidelines.

Means of verification

103. If monitoring of parameters related to the GHG emissions reductions of the project has been conducted by measuring equipments (monitoring Option C defined in the PDD and Monitoring Guidelines), the TPE determines whether the measuring equipments have been

properly calibrated in line with the monitoring plan.

104. If the measuring equipments are:

- (a) Properly calibrated in line with the monitoring plan, the TPE determines whether the measured values are properly corrected, where necessary, to calculate emission reductions in line with the PDD and Monitoring Guidelines;
- (b) Not properly calibrated in line with the monitoring plan, the TPE determines whether the result of a delayed calibration is allowed to be used to calculate emission reductions in line with the PDD and Monitoring Guidelines. If the result of a delayed calibration is:
 - (i) Allowed to be used, the TPE determines whether the measured values are properly corrected, where necessary, based on the result of the delayed calibration in line with the PDD and Monitoring Guidelines;
 - (ii) Not allowed to be used, the measured values are not used for that monitoring period.
- 105. Where using the result of a delayed calibration is allowed as described in paragraph 104(b)(i), if the results of the delayed calibration are not available or the calibration has not been conducted at the time of verification, the TPE requests, prior to finalizing verification, the project participants to conduct the required calibration.
- 106. In cases where the TPE determines that it is not possible for the project participants to conduct the calibration at a frequency specified by either the applied methodology and/or the registered monitoring plan due to reasons beyond the control of project participants, the TPE seeks guidance from the Joint Committee.

Reporting requirements

107. The TPE lists each parameter which has been monitored by measuring equipment and states whether the calibration of the measuring equipment is properly conducted in line with the monitoring plan and whether the measured values are appropriately corrected, if necessary, in line with the PDD and Monitoring Guidelines.

8.2.4. Assessment of data and calculation of GHG emission reductions

Verification requirement

108. The TPE assesses the data and calculations of GHG emission reductions achieved by/resulting from the project by the application of the selected approved methodology.

Means of verification

109. The TPE determines whether:

(a) The corresponding Monitoring Report Sheet of the applied methodology has been

used;

- (b) A complete set of data for the specified monitoring period is available. If partial data are unavailable, the TPE either gives negative verification opinion for that time period during which the data are unavailable in the monitoring period or seeks guidance from the Joint Committee;
- (c) Information provided in the monitoring report has been checked with sources such as plant logbooks, inventories, purchase records, laboratory analysis;
- (d) Any assumptions used in emission calculations have been justified;
- (e) Appropriate emission factors, default values, and other reference values have been correctly applied.

Reporting requirement

110. The verification report contains:

- (a) A confirmation that appropriate Monitoring Report Sheet of the applied methodology has been used;
- (b) A confirmation that a set of data for the specified monitoring period was complete, or a list of actions taken by the TPE in line with the guidance from the Joint Committee when partial data are unavailable;
- (c) A description of how the TPE checked reported data;
- (d) An opinion as to whether assumptions, emission factors, default values, and other reference values that were applied in the calculations have been justified.

8.2.5. Assessment of avoidance of double registration

Verification requirement

111. The TPE determines whether the project is not registered under other GHG mitigation crediting international climate mitigation mechanisms.

Means of verification

- 112. The TPE receives a written confirmation from the project participants that the project is not registered under other GHG mitigationinternational climate mitigation crediting mechanisms.
- 113. In addition to paragraph 112 above, the TPE conducts, at a minimum, a search on the website of the CDM and JI to check whether the projects with similar technology and location in the Kingdom of Thailand have been registered. When projects with similar technology and location are found, the TPE ensures, through document review and/or interviews with the project participants on whether the project differs from projects registered under other GHG mitigation international climate mitigation crediting mechanisms.

Reporting requirement

114. The TPE provides an opinion on whether the project is not registered under other GHG mitigation international climate mitigation crediting mechanisms.

8.3. Post registration changes

Verification requirement

115. The TPE determines whether there are post registration changes from the registered PDD and/or methodology which prevent the use of the applied methodology.

Means of verification

- 116. If the TPE identifies that the project has been changed from the registered PDD and/or methodology and that change would prevent the use of the applied methodology, the TPE raises a CAR and requests the project participants to seek prior approval from the Joint Committee with respect to the acceptability of the changes.
- 117. The TPE continues verification following guidance from the Joint Committee.

Reporting requirements

- 118. Where the change which prevents the use of the applied methodology is identified during verification and the Joint Committee approves the change, the TPE indicates in the verification report the types of change, and how the CAR raised is addressed.
- 119. Where the change which does not prevent the use of the applied methodology is identified during verification, the TPE describes the types of change in the verification report.

9. Verification report

- 120. The verification report gives an overview of the verification conclusions and the verification process used by the TPE. All verification findings are identified and justified.
- 121. The TPE reports the following:
 - (a) A summary of the verification process and the scope of verification;
 - (b) A summary of the verification results and decision on the level of assurance;
 - (c) Details of the verification team, technical experts, and internal reviewers involved, together with their roles in the verification activity and details of who conducted the on-site visit;
 - (d) Findings of the desk review and site visit;
 - (e) All of the TPE's findings and conclusions as to whether:
 - (i) The project has been implemented and operated in line with the eligibility criteria of the applied methodology;

- (ii) Omissions or misstatements of reported values are considered as immaterial;
- (iii) The measuring equipments have been calibrated in line with the monitoring plan and the measured values are corrected appropriately in line with the PDD and Monitoring Guidelines, for parameters monitored under Option C;
- (iv) The data and calculation of GHG emission reductions have been assessed to correctly support the emission reductions being claimed;
- (v) The project is not registered under other <u>GHG mitigation international climate</u> <u>mitigation_crediting_</u> -mechanisms.
- (f) A list of each parameter specified by the monitoring plan and a statement on how the values in the monitoring report have been verified;
- (g) A statement that identifies any changes to the registered PDD, and their date of approval by the Joint Committee;
- (h) An assessment and close-out of any CARs, CLs or FARs issued to the project participants;
- (i) An assessment of remaining issues from the previous verification period, if appropriate;
- (j) A conclusion on the verified amount of emission reductions achieved.
- 122. The TPE describes all documentation supporting verification and makes such documentation available to the Joint Committee upon request.