




**Validation report form for post-registration changes for
CDM project activities
(Version 02.0)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	Jilin Fuyu Sanjingzi Phase I Wind Farm Project
Process track	<input type="checkbox"/> Prior approval <input checked="" type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
Version number of the validation report on PRCs	01
Completion date of the validation report on PRCs	05/01/2019
Type(s) of PRCs	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline <input type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan to a registered project activity <input checked="" type="checkbox"/> Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline <input type="checkbox"/> Changes to the project design of a registered project activity <input type="checkbox"/> Types of changes specific to afforestation and reforestation project activities
Version number of PDD to which this report applies	Version 04
Project participant(s)	Fuyu County Chengrui Wind Energy Co., Ltd. (as the project owner) GreenStream Network Plc Climate Opportunity Fund Ky Fine Post-2012 Carbon Fund Ky (as the CERs buyer)
Host Party	China
Applied methodologies and standardized baselines	Approved consolidated baseline and monitoring methodology ACM0002 (Version 13.0.0): Consolidated baseline and monitoring methodology for grid-connected electricity generation from renewable sources.
Mandatory sectoral scopes linked to the applied methodology	Sectoral scope 1: Energy Industries

Conditional sectoral scopes linked to the applied methodologies	-
Name and UNFCCC reference number of DOE	Shenzhen CTI International Certification Co., Ltd (CTI)
Name, position and signature of the approver of the validation report on PRCs	Zhou Lu, General Manager 

SECTION A. Executive summary

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Summary of the project activity:

Shenzhen CTI International Certification Co., Ltd (CTI) has performed the validation of the post-registration changes for the CDM project activity “Jilin Fuyu Sanjingzi Phase I Wind Farm Project” (hereinafter referred to “The project”) in China (UNFCCC Ref. No. 8263) registered on 20/11/2012. The project is a new grid-connected renewable power generation project, which is located at Sanjingzi Town, Fuyu County, Jilin, P.R.China. The geographical coordinates of the wind farm are at the latitude of 45.1959°N and the longitude of 125.2825°E. The project’s installed capacity is 49.5 MW, consisting of 30 sets of wind turbines with a rated capacity of 1500kW. The electricity generated by the project activity was supplied to the Northeast China Power Grid (hereafter referred to as “NECPG”), and the project is estimated to deliver 94,671 tonnes CO₂ emission reduction annually.

Scope of the validation:

- Whether the post changes are in compliance with the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan;
- Whether the permanent changes are likely to lead to a reduction in the accuracy of the calculation of emission reductions.

Through document review and physical on-site investigation, the validation team confirms that the proposed post-registration changes do not require prior approval by the Board in accordance with the appendix to the Project Standard (PS). The post-registration changes have been described in the Revised PDD completed with the valid version of the PDD. In the CTI’s opinion, the post-registration changes to the registered monitoring plan described in the Revised PDD are in compliance with the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan. The changes will not lead to a reduction in the accuracy of the calculation of emission reductions. Therefore, CTI recommends the approval of request for the changes as stated in the Revised PDD submitted by the project participant.

SECTION B. Validation team, technical reviewer and approver**B.1. Validation team member**

No.	Role	Type of resource	Last name	First name	Affiliation	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	IR	Li	Zongfeng	N/A	√	√	√	√

B.2. Technical reviewer and approver of the validation report on PRCs

No.	Role	Type of resource	Last name	First name	Affiliation
1.	Technical reviewer	IR	Lin	Shunrong	N/A
2.	Approver	IR	Zhou	Lu	N/A

SECTION C. Means of validation**C.1. Desk/document review**

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To determine whether the permanent changes from the registered monitoring plan comply with the relevant requirements in the Project standard. CTI reviewed:

- The registered PDD for the project activity /1/, the validation report /2/, the Revised PDD /3/;
- Baseline and monitoring methodology ACM0002 (Version 13.0.0) applied by the project /5/;
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board /6/-/10/; and
- Other information and references relevant to the project activity.

C.2. On-site inspection

Duration of on-site inspection: 28/12/2018				
No.	Activity performed on-site	Site location	Date	Team member
1.	To determine whether there are permanent changes from the registered monitoring plan	The project site and the control room of the plant	28/12/2018	Li Zongfeng
2.	To determine whether the permanent changes comply with the relevant requirements in the Project standard	The office of the project	28/12/2018	Li Zongfeng

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Ou	Meiyu	Finish Carbon Asset Management Consultation (Beijing) Limited	28/12/2018	- Monitoring Plan - Monitoring data and Monitoring Report - GHG Calculations	Li Zongfeng
2	Wang Liang Zhu	Wengang Bo Chunyu	Fuyu County Chengrui Wind Energy Co., Ltd.	28/12/2018	- Monitoring Plan and management procedures - Monitoring data - Data uncertainty and residual risks (QA/QC)	Li Zongfeng

C.4. Sampling approach

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Not applicable.

C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	0	0	0
Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline	0	0	0
Corrections	0	0	0
Changes to the start date of the crediting period	0	0	0
Inclusion of a monitoring plan to a registered project activity	0	0	0
Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline	0	1	0
Changes to the project design of a registered project activity	0	0	0
Types of changes specific to afforestation and reforestation project activities	0	0	0
Others (please specify)	0	0	0
Total	0	1	0

SECTION D. Validation findings**D.1. Compliance with PDD form**

Means of validation	At the time of the PRC validation period, the latest available version of CDM-PDD-FORM is Version 10.1.
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	By checking the Revised PDD (Version 04 dated 05/12/2018, both in tracked-change and clean versions) /3/, CTI confirmed that the latest version has been applied for the Revised PDD and the input is according to the instructions therein for filling out the PDD form /10/. The version of PDD form for the revised PDD is later than the one of the registered PDD. By comparing the revised PDD with the registered PDD, CTI confirms that the information transferred to the Revised PDD is materially the same as that in the registered PDD. The changes are only related the post-registration changes and the correction to the registered monitoring plan (as described in the Section D.6 of this report).
Findings	NA
Conclusion	The Verification Team confirms that the revised PDD is compliance with the valid version of the CDM-PDD-FORM and the instructions therein for filling out the CDM-PDD-FORM, and the information transferred to the later valid version applied for the revised PDD is materially the same as that in the registered PDD.

D.2. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Means of validation	NA
Findings	NA
Conclusion	NA

D.3. Corrections

Means of validation	NA
Findings	NA
Conclusion	NA

D.4. Changes to the start date of the crediting period

Means of validation	NA
Findings	NA
Conclusion	NA

D.5. Inclusion of a monitoring plan to a registered project activity

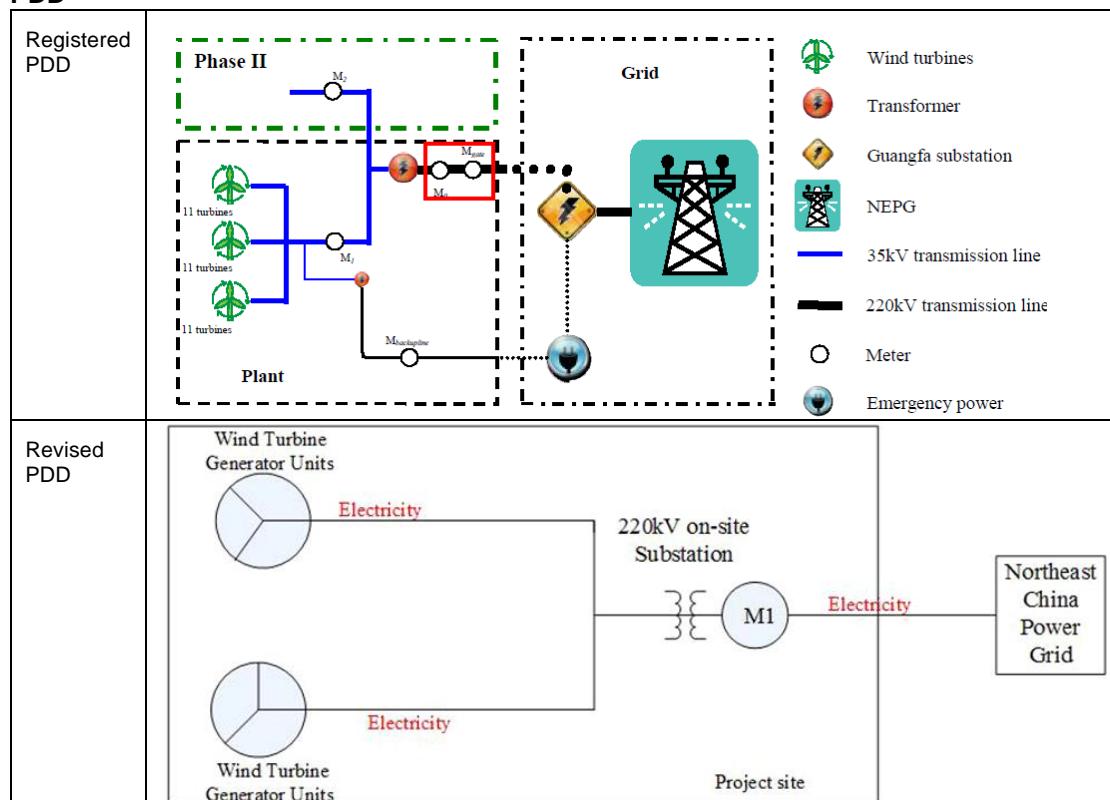
Means of validation	NA
Findings	NA
Conclusion	NA

D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools

Means of validation	<p>The post-registration changes to the registered monitoring plan is identified during the process performing the 1st verification of Jilin Fuyu Sanjingzi Phase I Wind Farm Project. The changes are assessed in accordance with applicable validation requirements related to the permanent changes from the registered monitoring plan in the CDM validation and verification standard for project activities as below:</p> <p>As per the registered monitoring plan, two bi-directional meters (M_{gate}, M_0) will be installed to monitor $EG_{export,y}$ and $EG_{import,y}$. M_0 works as backup meter for M_{gate} when there is failures in M_{gate}, M_0 will be used. After the second phase connected to the same transformer, the M_{gate} and M_0 will be used to monitor electricity imported and exported from both two projects. Then, M_1 which monitors electricity from the proposed project (phase I) will be implemented with M_2 which monitors electricity from phase II to calculate the exported and imported electricity from the proposed project as $M_{gate} * M_1 / (M_1 + M_2)$. M_1 and M_2 are also bi-directional meters. In order to monitor the electricity imported for black start, one meter ($M_{backupline}$) will be installed to monitor $EG_{backupline,y}$. The accuracy of the all the meters must be 0.5 or more precise.</p> <p>After the proposed project registered, it has been operated completely on 12/10/2014. As per the requirement of the Grid Company /4/, a meter (M_1) has been installed at high volt side of 220kV on-site Substation to monitor the electricity supplied to NECPG by the proposed project ($EG_{export,y}$) and the electricity imported from NECPG by the proposed project ($EG_{import,y}$). Contrast to registered PDD, there is no back line with the back meter to monitor its export and</p>
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import electricity, monitoring parameter $EG_{\text{backupline}, y}$ is not existed correspondingly. (as shown in Fig 1 below).

Fig 1 Comparison of the monitoring system between the registered PDD and Revised PDD



Corresponding to the changes of the monitoring structure, the monitoring for the parameters $EG_{\text{export}, y}$ (electricity exported to the grid by the project) and $EG_{\text{import}, y}$ (electricity imported from the grid to the project) changed from directly measured by the meter M1 installed at the high volt side of 220kV on-site Substation to be calculated based on the measured values of the meters as below:

$$EG_{\text{facility}, y} = EG_{\text{export}, y} - EG_{\text{import}, y}$$

$EG_{\text{export}, y}$ is the electricity supplied to NECPG by the proposed project;

$EG_{\text{import}, y}$ is the electricity imported from NECPG by the proposed project.

The actual accuracy of the meter M1 installed are verified to be 0.2S in compliance with the calibrating standards "Verification Regulation of Electrical Energy Meters with Electronics (JJG596-2012)". The calibration frequency of meters is annual, which is consistent with the information in the PDD.

By document review and on site investigation, CTI confirms that:

- the accuracy of the meter M1 meets the requirement of the registered and Revised monitoring plan;
- the monitoring means of $EG_{\text{export}, y}$ and $EG_{\text{import}, y}$ is reasonable.

The PDD has been revised to indicate the changes from the registered monitoring plan. Through the on-site investigation and the document review, the Verification Team has confirmed that the actual monitoring structure is in accordance with the Power Purchase Agreement /4/ and revised monitoring plan reflects the actual project information.

As per the CDM project standard for project activities (Ver.02.0), for the "Permanent changes from the registered monitoring plan", if the changes to the monitoring of the registered CDM project activity is related to the one(s) listed below which do not require prior approval by the Board:

- Change of calibration frequency or practice for monitoring equipment not within the control of project participants or the coordinating/managing entity;

	<p>(b) Change of accuracy/type/model of meter(s) as per a power purchase agreement (PPA); or</p> <p>(c) Change of location of meter(s) as per a PPA;</p> <p>(d) Change of location of electricity meters if the transmission loss is taken into account;</p> <p>(e) Change of location of substation not within the control of the project participants or the coordinating/managing entity;</p> <p>(f) Change of calibration frequency or practice for monitoring equipment as per the applied methodology or national standard; or</p> <p>(g) Change of frequency of monitoring certain parameters as per the applied methodology.</p> <p>As stated above, the changes of the proposed project are only related to the changes on the quantity and location of the monitoring equipment as per the requirement of PPA. It considers the changes belongs to the item (c), thus the proposed changes do not require the prior approval by the EB. CTI confirms that the changes do not affect the application of the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan. And also the changes do not lead to a reduction in the accuracy of the calculation of emission reductions.</p>
Findings	<p>CAR 1: In the registered PDD, it stated that “two bi-directional meters (M_{gate}, M_0) will be installed to monitor $EG_{export,y}$ and $EG_{import,y}$. M_0 works as backup meter for M_{gate} when there is failures in M_{gate}, M_0 will be used. After the second phase connected to the same transformer, the M_{gate} and M_0 will be used to monitor electricity imported and exported from both two projects. Then, M_1 which monitors electricity from the proposed project (phase I) will be implemented with M_2 which monitors electricity from phase II to calculate the exported and imported electricity from the proposed project as $M_{gate} * M_1 / (M_1 + M_2)$. M_1 and M_2 are also bi-directional meters. In order to monitor the electricity imported for black start, one meter ($M_{backupline}$) will be installed to monitor $EG_{backupline, y}$. The accuracy of the all the meters must be 0.5 or more precise.” However, by on-site visit, CTI found that a meter (M_1) has been installed at the high volt side of 220kV on-site Substation to monitor the total electricity supplied to the grid by the proposed project and the imports from the grid by the proposed project. Contrast to registered PDD, there is no back line with the back meter to monitor its export and import electricity, monitoring parameter $EG_{backupline, y}$ is not existed correspondingly. (Refer to Appendix 4)</p>
Conclusion	<p>CTI confirms that the post-registration changes comply with the relevant requirements related to the permanent changes from the registered monitoring plan in the CDM project standard for project activities (Ver. 1.0) and do not require the prior approval by the EB.</p>

D.7. Changes to the project design

Means of validation	NA
Findings	NA
Conclusion	NA

D.8. Changes specific to afforestation and reforestation project activities

Means of validation	NA
Findings	NA
Conclusion	NA

SECTION E. Internal quality control

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This final validation report including the initial findings underwent a technical review before being submitted to project participants and requesting the approval for the changes according to CTI internal procedure. The technical reviewers were not part of the validation team, and the technical review was independently of the validation team.

SECTION F. Validation opinion

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CTI has performed the validation of the post-registration changes according to the CDM validation and verification standard for project activities (version 1.0). In CTI's opinion, the post-registration changes ensure the accuracy and completeness of monitoring and verification process based on the actual conditions. The Validation Team is able to confirm the revision of monitoring plan included in the Revised PDD does not require the prior approval by the Board as per the CDM project standard for project activities (version 02.0). CTI recommends the approval of request for

the changes as stated in the as stated in the Revised PDD submitted by the project participant. In line with the PCP, CTI can submit the changes for acceptance by the Board as part of the request for issuance.

Zongfeng Li

Mr. Li Zongfeng
Team Leader
05/01/2019

Shunrong Lin

Ms. Lin Shunrong
Technical Reviewer
05/01/2019

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CL	Clarification request
CTI	Shenzhen CTI International Certification Co., Ltd
DOE	Designated Operational Entity
EB	Executive Board
FAR	Forward Action Request
MR	Monitoring Report
NECPG	Northeast China Power Grid
PCP	CDM project cycle procedure
PDD	Project Design Document
PPA	Power Purchase Agreement
PS	CDM project standard for project activities
UNFCCC	United Nations Framework Convention on Climate Change
VVS	CDM validation and verification standard for project activities

Appendix 2. Competence of team members and technical reviewers

Mr. Li Zongfeng

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

Qualification						
Status	GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date	√	√	√	√	-	-

Scope	Technical Area
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources
SS 5: Chemical industry	TA 5.1: Chemical industry
	TA 5.2: Caprolactam, nitric and adipic acid
SS 11: Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	TA 11.1: Emissions of fluorinated gases
	TA 11.2: Refrigerant gas production
SS 12: Solvents use	TA 12.1: Chemical industry

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Lin Wu

Wu Lin

Technical competent manager
Shenzhen, 01/07/2016

Ms. Shunrong LIN

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

Qualification						
Status	GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date	√	√	√	√	√	√

Scope	Technical Area
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources
SS 14: Afforestation and reforestation	TA 14.1: Afforestation and reforestation
SS 15: Agriculture	TA 15.1: Agriculture

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Wu LIN

Wu Lin

Technical Competent Manager

Shenzhen, Shenzhen, 01/01/2018

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
/1/	Finish Carbon Asset Management Consultation (Beijing) Limited	Registered CDM-PDD for project activity	Version 3.0 dated 31/10/2012	Project participant
/2/	TUV SUD	Validation report for project activity	Version 03 dated 15/11/2012	Others
/3/	Finish Carbon Asset Management Consultation (Beijing) Limited	Revised PDD for project activity (both in tracked-change and clean versions)	Version 04 dated 05/12/2018	Project participant
/4/	Fuyu County Chengrui Wind Energy Co., Ltd. and State Grid Jilin Province Power Co., Ltd.	Power Purchase Agreement for Jilin Fuyu Sanjingzi Phase I Wind Farm Project	-	Project participant
/5/	EB	Consolidated baseline methodology for grid-connected electricity generation from renewable sources- ACM0002	Version 13.0.0	Others
/6/	EB	CDM validation and verification standard for project activities	version 02.0	Others
/7/	EB	CDM project standard for project activities	version 02.0	Others
/8/	EB	CDM project cycle procedure for project activities	Version 02.0	Others
/9/	EB	Attachment: Instructions for filling out the validation report form for post-registration changes for CDM project activities of CDM-PRCV-FORM	Version 02.0	Others
/10/	EB	Guideline-Completing the monitoring report form	Version 06.0	Others

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. CL from this validation

CL ID	NA	Section no.	NA	Date: DD/MM/YYYY
Description of CL				
NA				
Project participant response				Date: DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: DD/MM/YYYY
NA				

Table 2. CAR from this validation

CAR ID	1	Section no.	D.6	Date: 03/01/2019
Description of CAR				
In the registered PDD, it stated that "two bi-directional meters (M_{gate} , M_0) will be installed to monitor $EG_{export,y}$ and $EG_{import,y}$. M_0 works as backup meter for M_{gate} when there is failures in M_{gate} , M_0 will be used. After the second phase connected to the same transformer, the M_{gate} and M_0 will be used to monitor electricity imported and exported from both two projects. Then, M_1 which monitors electricity from the proposed project (phase I) will be implemented with M_2 which monitors electricity from phase II to calculate the exported and imported electricity from the proposed project as $M_{gate} * M_1 / (M_1 + M_2)$. M_1 and M_2 are also bi-directional meters. In order to monitor the electricity imported for black start, one meter ($M_{backuptime}$) will be installed to monitor $EG_{backuptime, y}$. The accuracy of the all the meters must be 0.5 or more precise." However, by on-site visit, CTI found that a meter (M_1) has been installed at the high volt side of 220kV on-site Substation to monitor the total electricity supplied to the grid by the proposed project and the imports from the grid by the proposed project.				
Project participant response				Date: 03/01/2019
There are permanent changes to the registered monitoring plan, Changes that are being submitted with this monitoring report as part of the request for issuance (post-registration change - issuance track) as applicable from this monitoring period.				
Documentation provided by project participant				
Diagram of power connection system				
DOE assessment				Date: 03/01/2019
The Revised PDD has been provided by PP to indicate the permanent changes in the monitoring system. The Verification Team confirms the updated monitoring system is consistent with the actual condition and according to the requirement of the Grid Company. As per the Ver.02.0 of CDM project standard for project activities, these changes do not need to get the prior approval from EB. Therefore, the Revised PDD will be submitted following the verification documents. CAR 1 is closed.				

Table 3. FAR from this validation

FAR ID	NA	Section no.	NA	Date: NA
Description of FAR				
NA				
Project participant response				Date: NA
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: NA
NA				

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	31 October 2017	Revision to align with the requirements in the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory		
Document Type: Form		
Business Function: Registration		
Keywords: post-registration change, project activities, validation report		