



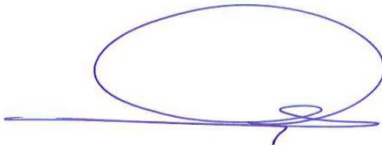
Validation report form for post-registration changes for CDM project activities

(Version 01.0)

Complete this form in accordance with the "Attachment: Instructions for filling out the validation report form for post-registration changes for CDM project activities" at the end of this form.

VALIDATION REPORT ON POST-REGISTRATION CHANGES (PRCs)

Title and reference number of the project activity	"Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil" CDM Reference: 7577
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	02
Completion date of the validation report on PRCs	26/10/2016
Type(s) of PRCs	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline <input checked="" 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	04
Project participant(s)	Brazil: Plantar; Plantar Siderúrgica; Plantar Carbon Ambiental Netherlands: International Bank for Reconstruction and Development as Trustee of the Prototype Carbon Fund; Netherlands' Ministry of Infrastructure and the Environment (IenM) Japan: Idemitsu Kosan Co., Ltd. ; Japan Petroleum Exploration Co., Ltd. ; The Okinawa Electric Power Co., Inc. ; Sumitomo Joint Electric Power Co., Ltd. ; Suntory Holdings Limited ; Tokyo Electric Power Company, Incorporated ; Sumitomo Chemical ; The Japan Iron and Steel Federation Italy: Italian Ministry for the Environment Land and Sea

	<p>Luxembourg: Ministry of Sustainable Development and Infrastructure</p> <p>Spain: Kingdom of Spain- Ministry of the Agriculture, Food and Environment & Ministry of Economy and Competitiveness</p>
Host Party	Brazil
Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)	<p>Sectoral Scope 9: Metal production</p> <p>AM0082 "Use of charcoal from planted renewable biomass in the iron ore reduction process through the establishment of a new iron ore reduction system", version 01.</p>
Name of DOE	AENOR (Spanish Association for Standardization and Certification)
Name, position and signature of the approver of the validation report on PRCs	 <p>Luis Robles Olmos Manager of Climate Change Unit AENOR</p>

SECTION A. Executive summary

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The Spanish Association for Standardization and Certification (AENOR) has performed the second verification of the emission reduction of the project "Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil" (Registration Ref. N° 7577) from 01/01/2015 to 31/12/2015.

The project proposes the use of renewable charcoal as the reducing agent in the iron ore reduction process. The use of renewable charcoal in the iron production process results in the replacement of fossil fuel - coal coke and also restores degrading grassland ecosystems.

To implement this project activity, the Plantar Group has decided to constitute a sustainable and new iron ore reduction system undertaking a major two-folded new investment: the establishment of new dedicated wood plantations to enable the sustainable production of renewable charcoal, and the refurbishment of its pig iron facilities. The latter is related to the new investments in the plantations, supporting the establishment of a sustainable productive arrangement.

The project activity relies on sustainable production practices and advanced plantation technology developed by the project entity. The plantations are managed using sustainable management practices according to the principles of international recognized environmental and quality certification (e.g. FSC, ISO, etc) systems. The production of seedlings in large-scale nurseries and localized irrigation systems are designed to make the use of water and other inputs more efficient. The fire protection and set asides of preservation areas enhance the biodiversity of the project area.

The processing of wood into charcoal occurs in improved brick kilns and applies operations allowing for greater control of carbonization variables and enabling the project entity to reduce methane emissions.

The iron ore reduction technology is based on mini-blast furnaces into which renewable charcoal coupled with iron ore are fed and undergo the reduction process, resulting in pig iron. Pulverized charcoal is injected into the blast furnaces

During the verification process, some corrections in the project description, and changes to the monitoring plan were identified by the audit team. In accordance with paragraph 267 of the CDM Project Standard version 09.0, the project participant shall identify and document any actual or proposed changes to the operation, implementation and/or monitoring of the registered CDM project activity taking into account the types of changes described in appendix 1, which describes the types of changes that do not require prior approval by the Board. The list of the changes detected is detailed below:

- Corrections:
 1. To remove the references to specific characteristics of the equipment to be used for monitoring described in section B.7.1.
 2. To list Project Participants as per the UNFCCC webpage since the registered PDD was not consistent with it.
 3. To include the default values to be applied from 01/01/2013 to parameters GWP_{CH_4} and GWP_{N_2O} in accordance with paragraph 57 of the CDM Project Standard version 09.0.
 4. To simplify or delete the information presented in the appendixes when redundant or not required for its inclusion on the revised PDD.

- Permanent changes to the registered monitoring plan, applied methodology or applied standardized baseline:
 1. To complete section B.7.2 of the revised PDD including the sampling plan defined according to the Standard: Sampling and surveys for CDM project activities and programme of activities" version 05.0.

This validation report contains the description of the post registration changes, including their nature, extent of the non-conforming monitoring and the proposed alternative monitoring of the project activity, as well as any other complementary information required by the latest versions of the PCP, PS and VVS.

AENOR has validated that According to paragraphs 1, 4 and 5 of the Appendix 1 of the CDM Project Standard version 09.0 /6/, changes detected and alternatives proposed for the project do not require Prior Approval.

Furthermore, AENOR, as it is demonstrated below, has verified through the on-site visit and the evidence assessed that the Project has correctly monitored all the parameters according to the new revised monitoring plan, applied methodology and tools in a conservative and accurate way and the changes occurred do not have impact on:

- The applicability and application of the applied methodology under which the project activity has been registered;
- The additionality of the project activity;
- The scale of the project activity.

It is AENOR opinion that no prior approval by the Board is necessary for this post registration changes and therefore, according to paragraph 158 of the CDM Project Cycle Procedure version 09.0 /5/, AENOR is submitting the post registration changes for acceptance by the Board as part of the present request for issuance of CERs for the period 01/01/2015 – 31/12/2015.

SECTION B. Validation team, technical reviewer and approver

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The list of involved personnel and the qualification status are summarised in the tables below.

B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	IR	Medrano Gutierrez	Alfonso	AENOR	X	X	X	X
2.	Validator	IR	Garro Flores	Freddy	AENOR PERU	X			X
3.	Technical Expert	ER	Dufour Andia	Javier	URJC	X	X	X	X

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Gonzalez Galán	M ^a Carmen	AENOR
2.	Technical expert	IR	Oliver García	Alfonso	AENOR
3.	Approver	IR	Robles Olmos	Luis	AENOR

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

The scope of the desk review process is to assess all changes from the project activity as described in the revised project design document, including their negative impact on the estimates of the emissions reductions, the level of accuracy of the monitoring activity, the additionality or scale of the project and the applicability and application of approved methodologies.

The following documents were reviewed as part of the scope of the activity:

- Registered PDD /1/
- Revised PDD/2/
- AM0082 “Use of charcoal from planted renewable biomass in the iron ore reduction process through the establishment of a new iron ore reduction system”, version 01. /3/.
- CDM Validation and Verification Standard, version 09.0 /4/.
- Clean Development Mechanism Project Cycle Procedure, version 09.0 /5/.
- Clean Development Mechanism Project Standard, version 09.0 /6/.
- Sampling and surveys for CDM project activities and programme of activities, version 05 /7/.
- Guidelines for sampling and surveys for CDM project activities and programme of activities, version 04 /8/.
- Associated documentation (design documentation, manufacturer documentation, internal procedures, etc)
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board.
- The applied monitoring methodology, paying close attention to the frequency of measurements, the quality of metering equipment and the quality assurance and quality control procedures.
- The data and information presented to verify their completeness, including the monitoring report and the measuring records of the different monitored parameters.
- The influence of data management and the quality assurance and quality control system on the generation and reporting of emission reductions.

A complete list of all documents reviewed is attached in Appendix 3 of this report.

C.2. On-site inspection

Duration of on-site inspection: 30/03/2016 to 31/03/2016				
No.	Activity performed on-site	Site location	Date	Team member
1.	<ul style="list-style-type: none"> Project implementation. Forestry and carbonization management Flows for generating, aggregating and reporting the monitoring parameters. Generation data verification. Check and calibration of metering equipment. Testing of monitoring equipment and observation of monitoring practices. Controls established to detect and correct any error or omission in monitoring parameters. Running of specific checks and trials on data sources and data management practices where risks are detected. Reliability of internal and external data. Internal data quality control. 	<p>Itacambira forest plantations and carbonization units.</p> <p>Curvelo forest plantations and nurseries.</p>	30/03/2016	<p>Alfonso Medrano Gutiérrez</p> <p>Javier Dufour Andia</p>
2.	<ul style="list-style-type: none"> Project implementation. Pig Iron production Charcoal consumption Verification of different data of the PDD and monitoring report Generation data verification. Check and calibration of metering equipment. Testing of monitoring equipment and observation of monitoring practices. Internal procedures of the Quality Management System. Verification of estimates and assumptions for determining GHG data Check calibration frequency against calibration certificates Monitoring report and emission reduction calculations. Estimates and assumptions for determining GHG data. Sufficiency of monitoring plan. Cross-check between information provided in the monitoring report and data from the monitoring system, plant log books, minutes meeting with stakeholders, purchase records, sales receipts, etc. Clarifications related to monitoring procedures. 	Pig Iron Mill at Sete Lagoas.	31/03/2016	<p>Alfonso Medrano Gutiérrez</p> <p>Javier Dufour Andia</p>

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Freire Coloma	Javier	Climate and Carbon Finance Unit at The World Bank	30-31/03/2016	<p>Verification of compliance of calibration frequency against original certificates. Crosscheck the information provided against monitoring report and data from monitoring system, plant log books, purchase records, etc.</p> <p>Verification of controls established to detect and correct any error or omission in monitoring parameters.</p> <p>Verification of different data of the PDD and monitoring report.</p> <p>Verification of estimates and assumptions for determining GHG data.</p>	<p>Alfonso Medrano Gutiérrez</p> <p>Javier Dufour Andia</p>
2.	De Oliveira	Cristiana	Carbon Analyst at Plantar Carbon	30-31/03/2016	<p>Verification of compliance of calibration frequency against original certificates. Crosscheck the information provided against monitoring report and data from monitoring system, plant log books, purchase records, etc.</p> <p>Verification of controls established to detect and correct any error or omission in monitoring parameters.</p> <p>Verification of different data of the PDD and monitoring report.</p> <p>Verification of estimates and assumptions for determining GHG data.</p>	<p>Alfonso Medrano Gutiérrez</p> <p>Javier Dufour Andia</p>
3	De Paula	Diego	Carbon Analyst at Plantar Carbon	30-31/03/2016	<p>Testing of monitoring equipment and observation of monitoring practices.</p> <p>Verification of compliance of calibration frequency against original certificates.</p> <p>Verification of Controls established to detect and correct any error or omission in monitoring parameters.</p> <p>Verification of different data of the PDD and monitoring report.</p> <p>Verification of round trip distances</p> <p>Verification of diesel consumption.</p> <p>Verification of Charcoal Gravimetric Yield</p>	<p>Alfonso Medrano Gutiérrez</p> <p>Javier Dufour Andia</p>

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
4.	De Alameida	Wellington	Plantar Forestry and Carbonization Coordinator	30/03/2016	Forest plantation. Carbonization process Charcoal production Testing of monitoring equipment and observation of monitoring practices. Mass of fertilizer applied Vehicles capacity Verification of internal data quality control. Verification of Charcoal Gravimetric Yield	Alfonso Medrano Gutiérrez Javier Dufour Andia
5.	Magno	Afonso	Coordinator of raw materials	31/03/2016	Hot metal production Renewable charcoal consumption Calibration procedures at Pig Iron Mill Crosscheck the information provided against monitoring report and data from monitoring system, plant log books, purchase records, etc. Verification of internal data quality control.	Alfonso Medrano Gutiérrez Javier Dufour Andia
6.	Diniz	Maurilio	Maintenance coordinator at Plantar Pig Iron Mill	31/03/2016	Technical maintenance stop of Blast Furnace 2.	Alfonso Medrano Gutiérrez Javier Dufour Andia

C.4. Clarification requests, corrective action requests and forward action requests raised

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

SECTION D. Validation findings

D.1. Compliance with PDD form

Means of validation	<p>During desk review process, the compliance of the revised PDD (both in tracked-changes and clean version) with the valid version of the applicable PDD form and the <i>Instructions for filling out the PDD form</i> was checked.</p> <p>The project participant has used the latest version of the PDD form for the revised</p>
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	PDD. All sections, titles, tables, have been revised and crosschecked against the <i>Instructions for filling out the validation report form for post-registration changes for CDM project activities /9/</i> and they were correct.
Findings	No finding has been detected regarding the use of the new form.
Conclusion	The proposed revised PDD has adopted the Project Design Document Form for Small Scale CDM Project of Activities (CDM-PDD-FORM) Version 08. AENOR has assessed the information included comparing with which was included in the registered PDD (CDM-PDD-FORM version 03) due to the fact that it was registered under the previous regulatory framework (VVM track). Once compared both versions, it is AENOR opinion that the information included in the new form is materially the same as the information in the registered PDD. The changes that are the subject of the request for approval have been highlighted.

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

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.3. Corrections

Means of validation	<p>Correction n°1: To remove the references to specific characteristics of the equipment to be used for monitoring described in section B.7.1.</p> <p>The correction requested consists of not including in the revised PDD the information about specific equipment (such as brand name or serial numbers) to be used for monitoring the corresponding parameters. The objective of removing this information is to avoid inconsistencies between the PDD and the MRs during future verifications because the equipment used for monitoring, in this case scales, could be replaced due to malfunctioning or to production needs. The vital information of the equipment such as accuracy class, capacity and calibration frequency has not been removed from the revised PDD in order to ensure that the characteristics of new equipment that could be installed in the future complies with the revised PDD.</p> <p>AENOR has validated that according to the “<i>Instructions for filling out the project design document form for CDM project activities</i>” the information included in section B.7.1 of the revised PDD regarding the “<i>Measurement methods and procedures</i>” to monitor the parameters is complete. It is AENOR opinion that the information such as brand or serial number of the equipment to be installed does not have impact on the accuracy of the values monitored. Information directly related to the monitoring accuracy such as calibration frequency or accuracy class has been properly described in the revised PDD.</p> <p>Furthermore, during the verification on site AENOR verified that description of the scales used to monitor all the parameters included in the PDD and in the monitoring report was complete and accurate, and corresponded to the actual equipment installed. AENOR verified too that the scale used was properly calibrated for the corresponding monitoring period.</p> <p>Correction n°2 To list project participants as per the UNFCCC webpage since the registered PDD was not consistent with it.</p> <p>AENOR has validated that the list of project participants included in the revised PDD is consistent with list included in the UNFCCC webpage and supported with written approvals and authorizations of all the DNAs involved in the project activity and checked by the audit team. All this information is considered appropriate and consistent by the audit team.</p> <p>Correction n°3: To include the default values to be applied from 01/01/2013 to parameters GWP_{CH4} and GWP_{N2O} in accordance with paragraph 57 of the CDM Project Standard version 09.0.</p>
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	<p>The corresponding tables for parameters GWP_{CH_4} and GWP_{N_2O} under section B.6.2 of the revised PDD have been updated to include the following default values to be applied from 01/01/2013:</p> <p>$GWP_{CH_4} = 25$ $GWP_{N_2O} = 298$</p> <p>AENOR has validated through the decision 4/CMP.7 and through the IPCC guidelines that the default values to be applied from 01/01/2013 to parameters GWP_{CH_4} and GWP_{N_2O} are correct.</p> <p>Correction n°4: To simplify or delete the information presented in the appendixes when redundant or not required for its inclusion on the revised PDD.</p> <p>AENOR has validated that the information simplified or removed from the PDD is not relevant to the project design, additionality or project monitoring. Only information from the annexes of the old PDD, such as explanation of the calculation spreadsheet formats; company's newsletter and project information for the Brazilian DNA, that cannot be included in the appendixes of the new PDD form version 08.0 have been deleted or simplified.</p> <p>Furthermore AENOR has validated that the information included in the revised PDD complies with the requirements stated in the <i>"Instructions for filling out the project design document form for CDM project activities"</i> version 08.0.</p> <p>Therefore AENOR confirms that transfer of information from the old form of the PDD registered (CDM -PDD version 03) to the new form under VVS track (F-CDM-PDD Version 08) is totally correct and materially the same as the information in the PDD registered on 28/12/2012 as it has been also confirmed in section D.1 above.</p>
Findings	No findings have been raised
Conclusion	<p>AENOR has validated that the information included in the revised PDD complies with the requirements stated in the <i>"Instructions for filling out the project design document form for CDM project activities"</i> version 08.0.</p> <p>AENOR has validated that the list of project participants included in the revised PDD is consistent with list included in the UNFCCC webpage and supported with written approvals and authorizations of all the DNAs involved in the project activity and checked by the audit team. All this information is considered appropriate and consistent by the audit team.</p> <p>AENOR has validated through the decision 4/CMP.7 and through the IPCC guidelines that the default values to be applied from 01/01/2013 to parameters GWP_{CH_4} and GWP_{N_2O} are correct.</p> <p>AENOR confirms that transfer of information from the old form of the PDD registered (CDM -PDD version 03) to the new form under VVS track (F-CDM-PDD Version 08) is totally correct and materially the same as the information in the PDD registered on 28/12/2012 as it has been also confirmed in section D.1 above.</p> <p>Therefore, according to Appendix 1 (paragraph 1) of the CDM Project Standard, AENOR confirms that the correction requested does not require prior approval by the CDM Executive Board.</p>

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

Means of validation	N/A
Findings	N/A
Conclusion	N/A

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

Means of validation	N/A
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Findings	N/A
Conclusion	N/A

D.6. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

Means of validation	<p>Change nº1: To complete section B.7.2 of the revised PDD including the sampling plan defined according to the Standard: Sampling and surveys for CDM project activities and programme of activities” version 05.0.</p> <p>The PP designed a sampling plan during the validation process but it was not included in the registered PDD. In fact, that sampling plan, called “<i>Relatório técnico – Dimensionamento da amostra para estimação da umidade da madeira (base seca) na Unidade de Carbonização</i>” /9/ was provided to AENOR as an single evidence during the first verification process in order to demonstrate the way in which parameter Y_{PJ} had been monitored. AENOR confirmed that the sampling plan called “<i>Relatório técnico – Dimensionamento da amostra para estimação da umidade da madeira (base seca) na Unidade de Carbonização</i>” /9/ complies with the requirements stated in the Standard: Sampling and surveys for CDM project activities and programme of activities” version 05.0 and the Guideline: Sampling and surveys for CDM project activities and programmes of activities”, Version 04.</p> <p>In order to comply with the CDM Project Standard version 09.0 and with the “<i>Instructions for filling out the project design document form for CDM project activities</i>” version 08.0. the PP has decided to include the sampling plan described in the evidence “<i>Relatório técnico – Dimensionamento da amostra para estimação da umidade da madeira (base seca) na Unidade de Carbonização</i>” /9/ in section B.7.2 of the revised PDD. In this way the PDD is more complete and transparent for future verifications.</p> <p>AENOR has validated that the sampling plan included in section B.7.2 of the revised PDD is consistent with the evidence “<i>Relatório técnico – Dimensionamento da amostra para estimação da umidade da madeira (base seca) na Unidade de Carbonização</i>” /9/.</p> <p>Furthermore, during the first and second verification process AENOR has verified through the evidence “<i>EVrfIN_SUB_160816_SampleSize</i>” /10/ that the sample size was properly determined according to the sampling plan.</p> <p>AENOR confirms that the sampling plan included in section B.7.2 of the revised PDD is clear and complete and it has been designed following the criteria and procedures stated in the Standard: Sampling and surveys for CDM project activities and programme of activities” version 05.0 and the Guideline: Sampling and surveys for CDM project activities and programmes of activities”, Version 04.</p>
Findings	No findings have been raised
Conclusion	<p>AENOR confirms that the sampling plan included in section B.7.2 of the revised PDD is clear and complete and it has been designed following the criteria and procedures stated in the Standard: Sampling and surveys for CDM project activities and programme of activities” version 05.0 and the Guideline: Sampling and surveys for CDM project activities and programmes of activities”, Version 04.</p> <p>AENOR confirms that according to paragraphs 284-287 and Appendix 1 (paragraphs 4 and 5) of the CDM Project Standard version 09.0 the permanent change requested by the PP does not require prior approval by the EB.</p>

D.7. Changes to the project design of a registered project activity

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.8. Types of changes specific to afforestation and reforestation project activities

Means of validation	
Findings	
Conclusion	

SECTION E. Internal quality control

Following the completion of the assessment process by the validation team, all documentation undergoes an internal quality control through a technical review before submission to the CDM-EB. The technical reviewer is a qualified member of AENOR, independent from the team that carried out the validation of the post registration changes. The technical review team has collectively all the competence required including the technical area(s).

SECTION F. Validation opinion

AENOR was contracted to perform the verification of the CDM project activity: "Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil" (Registration Ref. No. 7577) for the monitoring period from 01/01/2015 to 31/12/2015, and during the verification process, some post-registration changes were identified by the audit team.

AENOR has performed the validation of the proposed changes according to the approved methodology AM0082 "Use of charcoal from planted renewable biomass in the iron ore reduction process through the establishment of a new iron ore reduction system" version 01, VVS (Version 09.0), PS (version 09.0) and PCP (Version 09.0).

AENOR planned and performed its work to obtain the information and explanations considered necessary to provide sufficient evidence to give reasonable assurance that the level of accuracy of GHG emission reductions, prepared on the basis of the monitoring plan included in the revised PDD compared with registered monitoring plan of the project activity is not adversely affect. This assessment included:

- Collection of evidence supporting the reported data.
- Checking whether the provisions of the revised monitoring plan, were consistently and appropriately applied.

This revision improves the accuracy of information provided and consistency in the revised PDD and the monitoring plan.

Furthermore, AENOR confirms that:

- The transfer of information from the old form of the PDD registered (CDM -PDD version 03) to the new form under VVS track (F-CDM-PDD Version 08) is totally correct and materially the same as the information in the PDD registered on 28/12/2012.
- The proposed revision points have been described, and an assessment has been provided to substantiate the reason for each of the proposed revision points of the revised PDD and monitoring plan, using objective evidences.
- The permanent changes proposed do not affect in any case to the correct fulfilment of the monitoring plan. Those changes are necessary to include more accurate information regarding the sampling plan in the registered PDD and to update the calibration frequencies of the equipment used in the project to comply with the National Standards (INMETRO) and with the applied methodology (Standard Operating Procedures).
- The Project has correctly monitored all the parameters according to the new revised monitoring plan, applied methodology and tools in a conservative and accurate way and the changes occurred do not have impact on: the applicability and application of the applied methodology under which the project activity has been registered, the additionality of the project activity and the scale of the project activity.

For all the reasons stated above, it is AENOR opinion that no prior approval by the Board is necessary for these post registration changes and therefore, according to paragraph 158 of the

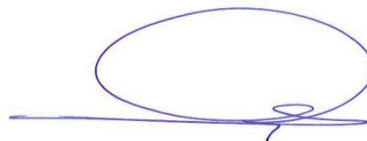
CDM Project Cycle Procedure version 09.0, AENOR is submitting the post registration changes for acceptance by the Board as part of the present request for issuance of CERs for the period 01/01/2015 to 31/12/2015.

The proposed changes from the registered monitoring plan are in accordance with the approved methodologies applicable to the project activity and ensuring the conservativeness of the emission reductions calculation.

Madrid, 26th October 2016



Alfonso Medrano Gutierrez
Team Leader



Luis Robles Olmos
Authorised person

Appendix 1. Abbreviations

Abbreviations	Full texts
AENOR	Spanish Association for Standardisation and Certification
AM0082	"Use of charcoal from planted renewable biomass in the iron ore reduction process through the establishment of a new iron ore reduction system" (version 01)
CAR	Corrective action request
CDM	Clean development mechanism
CDM-EB	CDM Executive Board
CER	Certified emission reduction
CL	Clarification request
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated national authority
DOE	Designated operational entity
ER	Emission reduction
FAR	Forward action request
GHG	Greenhouse gas(es)
INMETRO	National Institute of Metrology, Quality and Technology of Brazil
IBRD	International Bank for Reconstruction and Development as Trustee of the Prototype Carbon Fund
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of verification
MP	Monitoring Plan
MR	Monitoring report
PCP	Clean Development Mechanism Project Cycle Procedure (Version 09.0)
PDD	Project Design Document
PP	Project participants
PS	Clean Development Mechanism Project Standard (Version 09.0)
tC	Carbon tonnes
tCO ₂ eq	Carbon dioxide equivalent tonnes
UNFCCC	United Nations Framework Convention on Climate Change
VVS	CDM Validation and Verification Standard version 09.0

Appendix 2. Competence of team members and technical reviewers

Necessary skills and competences to undertake the verification are confirmed by the qualification certificate of all team involved in the process.

CERTIFICATE OF QUALIFICATION

Subject: Verification and Technical Review Team for "Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil"

Madrid, 14/10/2016

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Alfonso MEDRANO GUTIERREZ

CDM Team Leader: Yes

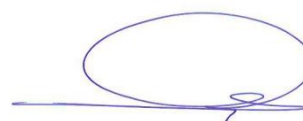
CDM Verifier: Yes

CDM Technical Reviewer: N/A

External Technical Expert: N/A

Technical areas related with the project activity:

N/A



Luis Robles Olmos
Authorised person

CERTIFICATE OF QUALIFICATION

Subject: Verification and Technical Review Team for "Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil"

Madrid, 26/10/2016

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Freddy Alejandro GARRO FLORES

CDM Team Leader: N/A

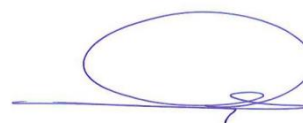
CDM Verifier: Yes

CDM Technical Reviewer: N/A

External Technical Expert: N/A

Technical areas related with the project activity:

N/A



Luis Robles Olmos
Authorised person

CERTIFICATE OF QUALIFICATION

Subject: Verification and Technical Review Team for "Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil"

Madrid, 26/10/2016

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Javier DUFOUR ANDIA

CDM Team Leader: N/A

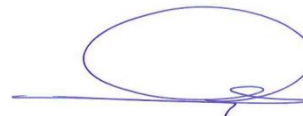
CDM Verifier: N/A

CDM Technical Reviewer: N/A

External Technical Expert: YES

Technical areas related with the project activity:

TA9.2: Iron, steel and Ferro-alloy production



Luis Robles Olmos
Authorised person

CERTIFICATE OF QUALIFICATION

Subject: Verification and Technical Review Team for "Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil"

Madrid, 26/10/2016

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: M^a Carmen GONZALEZ GALÁN

CDM Team Leader: N/A

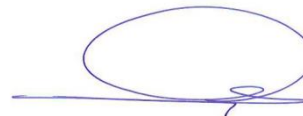
CDM Verifier: N/A

CDM Technical Reviewer: Yes

External Technical Expert: N/A

Technical areas related with the project activity:

N/A



Luis Robles Olmos
Authorised person

CERTIFICATE OF QUALIFICATION

Subject: Verification and Technical Review Team for "Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil".

Madrid, 26/10/2016

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039, and in relation with the verification process of the above mentioned project activity:

Name: Alfonso OLIVER GARCIA

CDM Team Leader: N/A

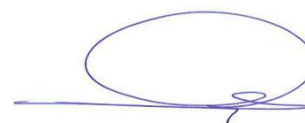
CDM Verifier: N/A

CDM Technical Reviewer: Yes

External Technical Expert: Yes

Technical areas related with the project activity:

TA9.2: Iron, steel and Ferro-alloy production



Luis Robles Olmos
Authorised person

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	PP	PDD registered	Version 03 15/06/2012	UNFCCC
2	PP	PDD revised	Version 04 29/09/2016	PP
3	UNFCCC	AM0082 "Use of charcoal from planted renewable biomass in the iron ore reduction process through the establishment of a new iron ore reduction system"	Version 01	UNFCCC
4	UNFCCC	CDM Validation and Verification Standard.	Version 09.0	UNFCCC
5	UNFCCC	Clean Development Mechanism Project Cycle Procedure, version 09.0	Version 09.0	UNFCCC
6	UNFCCC	Clean Development Mechanism Project Standard, version 09.0	Version 09.0	UNFCCC
7	UNFCCC	Standard Sampling and surveys for CDM project activities and programme of activities, version 05	Version 05.0	UNFCCC
8	UNFCCC	Guidelines for sampling and surveys for CDM project activities and programme of activities, version 04	Version 04.0	UNFCCC
9	PP	Relatório técnico – Dimensionamento da amostra para estimação da umidade da madeira (base seca) na Unidade de Carbonização		PP
10	PP	EVrfIN_SUB_160816_SampleSize		PP
11	DNV	Certificate ISO 9001 / Quality Management System		PP
12	DNV	Certificate ISO 14001 Environmental Management System		PP
13	INMETRO	INMETRO – Instituto Nacional de Metrologia, Qualidade e Tecnologia (National Institute of Metrology, Quality and Technology), Portaria 236/1994.		INMETRO
14	PP	Standard Operating Procedures certified according to ISO 9001 and ISO 14001 Standards		PP

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

Table 1. CL from this validation

CL ID	xx	Section no.	Date: DD/MM/YYYY
Description of CL			
Project participant response			Date: DD/MM/YYYY

Documentation provided by project participant	
DOE assessment	Date: DD/MM/YYYY

Table 2. CAR from this validation

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

Table 3. FAR from this validation

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

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Registration Keywords: post-registration change, project activities, validation report		