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# Validation Report

**AMAZON CARBON S/S LTDA**

VALIDATION OF THE CDM-PROJECT:  
**COTRIBÁ SWINE WASTE MANAGEMENT  
SYSTEM PROJECT**

REPORT NO. 1086752

**2008, March 05**

TÜV SÜD Industrie Service GmbH  
Carbon Management Service  
Westendstr. 199 - 80686 Munich – GERMANY

Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
1086752	2008-02-12	1	2008-03-05	-

<b>Subject:</b> Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich Federal Republic of Germany	TÜV SÜD Contract Partner: TÜV SÜD DO BRASIL – SERVIÇOS TÉCNICOS PARA A INDÚSTRIA E O MEIO AMBIENTE LTDA. Rua Henrique Monteiro n.90, 10.º andar ZIP 05423-020 - São Paulo Brazil
Client: Cooperativa Agrícola Mista General Osório (COTRIBÁ) 2359 Mauá Street Ibirubá ZIP 98200-000 Brazil	Project Site(s): <ol style="list-style-type: none"> <li>1. Granja Volta Gaúcha, Quinze de Novembro, GPS coordinates: 28° 48' 33.9" S, 53° 04' 51.4" W.</li> <li>2. Granja Várzea Grande, Ibirubá, GPS coordinates: 28° 38' 06.2" S; 53° 08' 12.1" W.</li> <li>3. Granja XV de Novembro, Quinze de Novembro, GPS coordinates: 28° 45' 38.7" S; 53° 05' 38.0" W.</li> <li>4. Granja Bohrz, Ibirubá, GPS coordinates: 28° 38' 48.8" S; 53° 08' 22.1" W and 28° 38' 30.8" S; 53° 08' 49.1" W.</li> </ol>
<b>Project Title:</b> COTRIBÁ Swine Waste Management System Project	
<b>Applied Methodology / Version:</b> AMS – III.D - Methane Recovery in agricultural and agro industrial activities / Version 13	<b>Scope(s):</b> 15
<b>First PDD Version:</b> Date of issuance: 2007-10-17 Version No.: 1 Starting Date of GSP 2007-11-09	<b>Final PDD version:</b> Date of issuance: 2008-02-07 Version No.: 4
<b>Estimated Annual Emission Reduction:</b> 15,252 tCO <sub>2</sub> e	
<b>Assessment Team Leader:</b> Martin Schroeder (TÜV SÜD Industrie Service GmbH)	<b>Further Assessment Team Members:</b> Johann Thaler (TÜV SÜD do Brasil) Konrad Tausche (TÜV SÜD Industrie Service GmbH)

**Summary of the Validation Opinion:**

- ☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively.
- ☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.

## Abbreviations

<b>ACM</b>	Approved Consolidated Methodology
<b>AWMS</b>	Animal Waste Management System
<b>CAR</b>	Corrective Action Request
<b>CDM</b>	Clean Development Mechanism
<b>CER</b>	Certified Emission Reduction
<b>CR</b>	Clarification Request
<b>DNA</b>	Designated National Authority
<b>DOE</b>	Designated Operational Entity
<b>EB</b>	Executive Board
<b>EIA / EA</b>	Environmental Impact Assessment / Environmental Assessment
<b>ER</b>	Emission reduction
<b>GHG</b>	Greenhouse gas(es)
<b>IRR</b>	Internal Rate of Return
<b>KP</b>	Kyoto Protocol
<b>MP</b>	Monitoring Plan
<b>NGO</b>	Non Governmental Organisation
<b>PDD</b>	Project Design Document
<b>PP</b>	Project Participant
<b>TÜV SÜD</b>	TÜV SÜD Industrie Service GmbH
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VS</b>	Volatile Solids excretion
<b>VVM</b>	Validation and Verification Manual

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## 1 INTRODUCTION

### 1.1 Objective

The validation objective is an independent assessment by a Third Party (Designated Operational Entity = DOE) of a proposed project activity against all defined criteria set for the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CDM-EB. The ultimate decision on the registration of a proposed project activity rests at the CDM Executive Board and the Parties involved.

The project activity discussed by this validation report has been submitted under the project title: COTRIBÁ Swine Waste Management System Project.

### 1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM project activities the scope is set by:

- The Kyoto Protocol, in particular § 12
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions by the EB published under <http://cdm.unfccc.int>
- Specific guidance by the EB published under <http://cdm.unfccc.int>
- Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-NM)
- The applied approved methodology
- The technical environment of the project (technical scope)
- Internal and national standards on monitoring and QA/QC
- Technical guideline and information on best practice

The validation is not meant to provide any consulting towards the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

Once TÜV SÜD receives a first PDD version, it is made publicly available on the internet at TÜV SÜD's webpage as well as on the UNFCCC CDM-webpages for starting a 30 day global stakeholder consultation process (GSP). In case of any request a PDD might be revised (under certain conditions the GSP will be repeated) and the final PDD will form the basis for the final evaluation as presented by this report. Information on the first and on the final PDD version is presented at page 1.

The only purpose of a validation is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

## 2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a validation protocol was customised for the project. TÜV SÜD developed a “cook-book” for methodology-specific checklists and protocol based on the templates presented by the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below.

The completed validation protocol is enclosed in Annex 1 to this report.

<b>Validation Protocol Table 1: Conformity of Project Activity and PDD</b>				
<b>Checklist Topic / Question</b>	<b>Reference</b>	<b>Comments</b>	<b>PDD in GSP</b>	<b>Final PDD</b>
<i>The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then further subdivided. The lowest level constitutes a checklist question / criterion.</i>	<i>Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any <b>Request</b> has to be substantiated within this column</i>	<i>Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (✓), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question (See below). <b>Clarification Request (CR)</b> is used when the validation team has identified a need for further clarification.</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PDD version.</i>

<b>Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests</b>			
<b>Clarifications and corrective action requests</b>	<b>Ref. to table 1</b>	<b>Summary of project owner response</b>	<b>Validation team conclusion</b>
<i>If the conclusions from</i>	<i>Reference to the</i>	<i>The responses given</i>	<i>This section should sum-</i>

<i>table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.</i>	<i>checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.</i>	<i>by the client or other project participants during the communications with the validation team should be summarised in this section.</i>	<i>marise the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final PDD".</i>
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In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

<b>Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests</b>		
<b>Clarifications and corrective action requests</b>	<b>Id. of CAR/CR 1</b>	<b>Explanation of the Conclusion for Denial</b>
<i>If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.</i>	<i>Identifier of the Request.</i>	<i>This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion.</i>

## 2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "climate and energy". The composition of an assessment team has to be approved by the Certification Body ensuring that the required skills are covered by the team. The Certification Body TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope linked to the methodology has to be covered by the assessment team.

The validation team was consisting of the following experts (the responsible Assessment Team Leader in written in bold letters):

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
<b>Martin Schroeder</b>	ATL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Konrad Tausche	E	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Johann Thaler	GHG-A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Martin Schröder** is an appointed GHG-Auditor by the certification body "climate and energy" of TÜV SÜD Industrie Service GmbH. Within TÜV SÜD he is responsible for the validation and verification of forestry and agriculture based GHG mitigation projects. He passed extensive internal training in the field of auditing.

**Konrad Tausche**, the former head of department of environmental measurement technique at the Frankfurt office of TÜV SÜD Industrie Service GmbH, supports the "TÜV Carbon Management Service" in Munich since Dec. 2006. He has an academic background in physical and chemical engineering. An additional economic study was completed with the academic degree of a Master of Business Administration and Engineering (MBA and Eng.). In his experience of 15 years he verified a lot of different energy, chemical and incineration plants, emission control and mitigation projects.

**Johann Thaler** graduated as Master of environmental Economy at the University of Augsburg. During his study he got first experiences in environmental management systems. His master thesis was about a fuel switch program in Brazil as a CDM project. Based in Brazil he has been



working for TÜV SÜD as a GHG auditor on freelance basis since March 2005. He attended and successfully finished a ISO 14001 Environmental Management Internal Auditing Training.

## 2.2 Review of Documents

The first PDD version submitted by the client and additional background documents related to the project design and baseline were reviewed as initial step of the validation process. A complete list of all documents and proofs reviewed is attached as annex 2 to this report.

## 2.3 Follow-up Interviews

On November 13-14, 2007 TÜV SÜD performed an interview on-site with project participants to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of the on-site visit.

Name	Organisation
Paulo Cericatto	Cotriba, manager
Guilherme Trein Peukert	Cotriba, veterinary
Gerson Fortuna	Cotriba, veterinary
Thiago Othero	Amazon, Project Director
Alexandre Paim Nora	Amazon, Technological analyst
Auri Benvegnu	Granja Volta Gaúcha, manager
Sidinei Teodoro de Campos	Granja XV de Novembro, manager
Vanderlei Capitani Basso	Granja Várzea, manager
Marcio Andre	Granja Rene Bohrz, manager

## **2.4 Resolution of Clarification and Corrective Action Requests**

The objective of this phase of the validation is to resolve the requests for corrective actions and clarifications and any other outstanding issues which needed to be clarified for TÜV SÜD's positive conclusion on the project design. The Corrective Action Requests and Clarification Requests raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are summarised in chapter 3 below and documented in more detail in the validation protocol in annex 1.

## **2.5 Internal Quality Control**

As final step of a validation the validation report and the protocol have to undergo an internal quality control procedure by the Certification Body "climate and energy", i.e. each report has to be approved either by the head of the certification body or his deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

It rests at the decision of TÜV SÜD's Certification Body whether a project will be submitted for requesting registration by the EB or not.

### 3 SUMMARY OF FINDINGS

As informed above all findings are summarized in table 2 of the attached validation protocol.

#### History of the validation process

The audit team has been provided with a draft PDD in November 2007. Based on this documentation a document review and a fact finding mission in form of an on-site audit has taken place. Afterwards the client decided to revise the PDD according to the CARs and CRs indicated in the audit process. The final PDD version submitted in February 2008 serves as the basis for the assessment presented herewith. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM to achieve a reduction of anthropogenic GHG emissions by sources and to contribute to sustainable development.

#### Project description

The project proposes to replace the existing Animal Waste Management Systems (AWMS) by a lower-GHG emitting AWMS. Currently, swine waste is flushed from the barns and treated in sequential anaerobic lagoon management systems that results in high GHG emissions.

The project will replace this system by anaerobic digesters that capture and combust methane in a controlled and economically sustainable manner. Certified Emission Reductions are claimed exclusively for the emission reductions associated to methane capture and combustion.

#### Findings

In total the assessment team expressed 49 Corrective Action Requests. There were no Clarification Requests expressed.

The key findings during the validation process were related to the provision of information which was missing or not updated in the PDD, inconsistencies in the information within the PDD and between the PDD and other CDM related documents, to the barrier analysis and baseline emissions. Besides, parameters were missing or not complete and information regarding monitoring was revised and included.

Considering these findings the PDD version 1 has been revised and the actual PDD version 4 is in compliance with the CDM requirements.

#### Baseline calculation

The baseline is been determined using reliable assumptions. The parameter "livestock population" as one of the decisive parameters for the quantitative prognosis is determined by using reliable data and is based on recent historical data obtained from a period of between 9 to 12 months. During the on-site visit the availability of such comprehensive data could be observed predominantly. Hence, plausible data have been provided from traceable sources ensuring the reliability of the parameter.

The methane emission factors are determined for each animal category (gilts, sows in gestation, sows, boars, piglets, nursery, finishers) separately, considering local weight data and local VS

values (except for breeding swine, where default values have been used) besides default values defined as per the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Regarding “Granja Várzea Grande”, baseline emissions have been finally reduced by 50 %, as the site uses a small solid separator and a portion of the waste is regularly removed for irrigation purposes from the first lagoon. The validation team considers this approach as conservative course of action.

The proposed project activity considers as project emissions “methane emissions from anaerobic digesters” and “methane emissions from inefficiency in methane flaring”, even though this is not requested by the methodology AMS-III-D, version 13. This shows the conservative approach chosen by the project participants.

Project CO<sub>2</sub> emissions from fossil fuel combusted to operate the AWMS and emissions from electricity consumption to operate the AWMS have not been considered, as there is no increase in fossil fuel consumption and no significant increase in energy consumption due to the project activity. The total electricity consumption of the electric pumps and the gas compressors for all farms is approximately 3 MWh per year. Besides, there is no leakage due to the project activity.

Default values have been correctly applied and in the case where a selection of different options was possible, the chosen values are appropriate.

The baseline scenario is the continuation of the current Animal Waste Management System, namely the treatment of swine waste in anaerobic lagoons. There is no legal requirement nor any current planning for a legislation to capture and combust greenhouse gases produced by swine manure in AWMS.

### **Additionality**

The additionality of the project was checked carefully. In doing so the assessment team has put the main focus on the following issues.

As the starting date of the project activity is after the date of GSP uploading, the validation team has not regarded it as necessary to ask for an explicit evidence that the CDM was seriously considered in the decision to proceed with the project activity.

Project participants decided to apply Attachment A to Appendix B of the Simplified modalities and procedures for small-scale clean development mechanism project activities in order to demonstrate additionality

In step one alternatives to the proposed project activity are identified. Step two excludes those alternatives which are not plausible or not in line with laws or regulations. After step two, only two alternatives, namely the continuation of the status-quo (AWSM in anaerobic lagoons) and the proposed project activity are left over.

Step 3, the barrier analysis shows, why the proposed project activity without CDM would not be realized. Investment and technological barriers prevent the implementation of a digester based AWMS.

Step 4, the common practice analysis, describes that the usual technology applied to Brazilian swine confinement farms is based on anaerobic lagoons. Therefore the project activity, which consists on anaerobic digesters, is not similar to what can be commonly found in Brazil.

To conclude the additionality assessment it may be stated that the proposed project activity is without doubt additional.



The project boundary, the project's starting date as well as the starting date of the crediting period are clearly defined in the last submitted PDD.

### **Monitoring**

The final PDD includes all relevant parameters to be monitored in order to determine baseline and project emissions. Baseline emissions will be monitored as according to the requirements of the methodology AMS III-D, version 13. In the case of project emissions ("methane emissions from anaerobic digesters" and "methane emissions from inefficiency in methane flaring), the methodology does not indicate those project emissions and its monitoring. Project participants decided to calculate those project emissions according to the monitored amount of methane destined to the flares, which is retraceable to the validation team.

The final destination of sludge will also be monitored to ensure that anaerobic conditions are avoided.

#### 4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on UNFCCC website by installing a link to TÜV SÜD's own website and invited comments by Parties, stakeholders and non-governmental organisations during a period of 30 days.

The following table presents all key information on this process:

<b>webpage:</b> <a href="http://www.netinform.de/KE/Wegweiser/Ebene1_Projekte.aspx?Ebene1_ID=26&amp;mode=0">http://www.netinform.de/KE/Wegweiser/Ebene1_Projekte.aspx?Ebene1_ID=26&amp;mode=0</a>	
<b>Starting date of the global stakeholder consultation process:</b> 2007-11-09	
<b>Comment submitted by:</b> -	<b>Issues raised:</b> -
<b>Response by TÜV SÜD:</b> -	

## 5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity:

COTRIBÁ Swine Waste Management System Project

The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board.

An analysis as provided by the applied methodology demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions as specified within the final PDD version.

The validation is based on the information made available to us and the engagement conditions detailed in this report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

Munich, 2008-\_\_-\_\_

Munich, 2008-

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Certification Body "climate and energy"  
TÜV SÜD Industrie Service GmbH

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Assessment Team Leader



## **Annex 1: Validation Protocol**



## Validation Protocol

Project Title: COTRIBÁ Swine Waste Management System Project – Report N° 1086752

Date of Completion: 05/03/2008

Number of Pages: 1



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
<b>A. General description of small-scale project activity</b>				
<b>A.1. Title of the small-scale project activity</b>				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	3	The project title “COTRIBÁ Swine Waste Management System Project” clearly enables to identify the unique CDM activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indication concerning the revision number and the date of the revision?	3	The PDD indicates version 1 from 17/10/2007.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the project's history?	1,3	It is consistent with the time line of the project's history.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.2. Description of the small-scale project activity</b>				
A.2.1. Is the description delivering a transparent overview of the project activities?	1,2,3	<ul style="list-style-type: none"> <li>The PDD (A.2.) does not inform how many tons CO2e are reduced by the project activity.</li> <li>The PDD (A.2.) does not mention anything about the pre-project situation.</li> <li>It is not very clear for what activity the project claims CER credits.</li> </ul> <p><b><u>Corrective Action Request 1:</u></b></p> <ul style="list-style-type: none"> <li>A.2. of the PDD should inform how many tons CO2e are reduced by the project activity.</li> <li>The PDD should inform in detail how the pre-project situation of each farm looked like (pre-project waste management system), amongst others description of animal structure, barns, open air lagoons (number and size), manure processing.</li> <li>It should be better explained what the project activity consists of and be explicitly mentioned how the project will reduce greenhouse gas emissions.</li> </ul>	<b>CAR 1</b>	<input checked="" type="checkbox"/>

## Validation Protocol

Project Title: COTRIBÁ Swine Waste Management System Project – Report N° 1086752

Date of Completion: 05/03/2008

Number of Pages: 2



Industrie Service

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		<ul style="list-style-type: none"> <li>It should be specified whether open or enclosed flares are used in the project activity.</li> </ul>		
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1,2,3 ,4,5, 13	<p>The following documents have been presented during the on-site visit evidencing that the project description is in compliance with the actual situation or planning:</p> <ul style="list-style-type: none"> <li>-Environmental licences respectively protocols of each of the 4 farms</li> <li>-Evidence about the ownership of the land respectively leasing contract that the project activity may be implemented at the sites. See A.4.1.2.</li> <li>-Technical plans of the biodigesters</li> </ul> <p><b><u>Corrective Action Request 2:</u></b></p> <p>Project participants are requested to provide information (a.o. technical characteristics) in the PDD about the project equipment (biodigester, flare, monitoring equipment (a.o. gas analyzer)). Besides, it should be submitted evidence that project equipment will be purchased.</p>	CAR 2	<input checked="" type="checkbox"/>
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1,2,3 ,4,5, 13	See A.2.2.	CAR 2	<input checked="" type="checkbox"/>
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	3	All information presented is consistent with details provided by further chapters of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.5. Describe the type of Waste Management System (WMS) used in the site (e. g. Anaerobic lagoon, composting, solid separator, etc.)	1,2,3	See A.2.1.	CAR 1	<input checked="" type="checkbox"/>

## Validation Protocol

Project Title: COTRIBÁ Swine Waste Management System Project – Report N° 1086752

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Number of Pages: 3



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
A.2.6. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?	1,2,3	The project activity will use lagoon based anaerobic digesters to treat animal waste. The technology used is not very much explained in the PDD. <b><u>Corrective Action Request 3:</u></b> The technical specifications of the digester, the structure of the storage lagoons (positioned after the digester) and the flaring system have to be explained in more detail.	CAR 3	<input checked="" type="checkbox"/>
A.2.7. Is the brief explanation how the project will reduce greenhouse gas emission transparent and suitable?	1,2,3	See A.2.1.	CAR 1	<input checked="" type="checkbox"/>
<b>A.3. Project participants</b>				
A.3.1. Is the form required for the indication of project participants correctly applied?	3	<b><u>Corrective Action Request 4:</u></b> Please add the phrase in A.3.: “(*) In accordance with the “CDM Modalities and Procedures”, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the party (ies) involved is required.	CAR 4	<input checked="" type="checkbox"/>
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?	6	Yes. A declaration of each project participant (COTRIBA and Amazon) has been submitted to the validation team.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1,3	Information provided on project participants is consistent with details provided in Annex 1 of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4. Technical description of the small-scale project activity</b>				
<b>A.4.1. Location of the small-scale project activity</b>				
A.4.1.1. Does the information provided on the location of the project activity allow for a	1,2,3,19	A.4.1.4. indicates the GPS coordinates of the 4 farms participating in the project activity.	CAR 5	<input checked="" type="checkbox"/>

## Validation Protocol

Project Title: COTRIBÁ Swine Waste Management System Project – Report N° 1086752

Date of Completion: 05/03/2008

Number of Pages: 4



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
clear identification of the site(s)?	,19	<p>in the project activity.</p> <p>The map which is illustrated in the PDD does not show the city of Quinze de Novembro.</p> <p><b><u>Corrective Action Request 5:</u></b></p> <ul style="list-style-type: none"> <li>The map illustrated in the PDD should show not only Ibiruba city, but as well Quinze de Novembro city.</li> <li>Beside the GPS coordinates it should be mentioned the addresses of each farm and the owner of each farm in the PDD.</li> <li>GPS coordinates should be updated with the measurement data taken during the on-site audit by Amazon.</li> </ul>		
A.4.1.2. How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	1,2,3,5,14	<p>Three farms are owned by COTRIBA. Evidences (2 registers, one leasing contract) have been submitted to the validation team.</p> <p>One farm (Reno Bohrz) is cooperative member of COTRIBA. Evidence was presented. Evidence about the ownership (register) was presented.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.2. Type and category(ies) and technology/measure of the small-scale project activity</b>				
A.4.2.1. To which type(s) does the project activity belong to? Is the type correctly identified and indicated?	1,3	The project activity belongs to type III. This type is correctly identified and indicated in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.2. To which category (ies) does the project activity belong to? Is the category correctly identified and indicated?	1,3	<p>The project activity belongs to category: III.D, Methane Recovery in agricultural and agro industrial activities.</p> <p><b><u>Corrective Action Request 6:</u></b></p> <p>The category "III.D, Methane Recovery in agricultural and agro industrial activities" has to be defined in A.4.2. of the PDD.</p>	<b>CAR 6</b>	<input checked="" type="checkbox"/>
A.4.2.3. Does the technical design of the project activity reflect current good practices?	1,3	Yes, the project design does reflect current good practice.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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A.4.2.4. Does the implementation of the project activity require any technology transfer from Annex-I countries to the host country (ies)?	1,3, 13	Equipment for the biodigester and flare is domestically produced. Part of the monitoring equipment (gas analyser) will be probably imported from Annex-I countries. <b><u>Corrective Action Request 7:</u></b> The PDD should inform whether the project activity requires any technology transfer from Annex-I countries, e.g. monitoring equipment.	CAR 7	<input checked="" type="checkbox"/>
A.4.2.5. Is the technology implemented by the project activity environmentally safe?	1,3, 13	Yes. The technology implemented by the project activity is environmentally safe. It has been implemented in various other CDM projects.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.6. Is the information provided in compliance with actual situation or planning?	1,3, 13	Yes. The information provided is in compliance with actual situation or planning.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1,3, 13	The project uses state of the art technology which has been already applied in other CDM projects.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,3, 13	No. The project equipment can be expected to run for the whole project period and it can not be expected that it will be replaced by more efficient technologies, but additional components could be added using biogas to generate heat and produce electricity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.9. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1,3, 13	Yes, initial training and maintenance efforts are required. During the visit at the project site the project developer confirmed that training will be realised by the provider of the equipment, AVESUY. <b><u>Corrective Action Request 8:</u></b> -Information from AVESUY about training and maintenance efforts	CAR 8	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		should be submitted to the validation team. -The PDD should inform, that AVESUY is responsible for training and maintenance efforts.		
A.4.2.10. Is information available on the demand and requirements for training and maintenance?	1,3,13	See A.4.2.9.	CAR 8	<input checked="" type="checkbox"/>
A.4.2.11. Is a schedule available for the implementation of the project and are there any risks for delays?	1,2,3,7,9	A time schedule for the implementation of the project activity (time schedule for each farm) was submitted to the validation team. AVESUY provided a declaration proving the construction start of the biodigester of the first farm on November 14, 2007.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.3. Estimated amount of emission reductions over the chosen crediting period</b>				
A.4.3.1. Is the form required for the indication of projected emission reductions correctly applied?	3	The form required for the indication of projected emission reductions is not completely correctly applied. <b><u>Corrective Action Request 9:</u></b> Project participants are requested to indicate the period in month for the emission reductions of the first and the last year.	CAR 9	<input checked="" type="checkbox"/>
A.4.3.2. Are the figures provided consistent with other data presented in the PDD?	1,2,3,11,12,15,16,18	The figures provided in A.4.3. are consistent with other data presented in the PDD. However, see B.6.4.5. and F.3.2.	See CAR 22 See CAR 46	<input checked="" type="checkbox"/>
A.4.3.3. Are the figures consistent with the small-scale criteria for the used Type?	1,3,15	Annual emission reductions are below 60.000 t CO <sub>2</sub> e. Thus, the small-scale criteria of methodology AMS III.D is fulfilled.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.4. Public funding of the small-scale project activity</b>				

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A.4.4.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1,3	No public funding is involved. Information given in the PDD.	☑	☑										
A.4.4.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1,3	Information provided in A.4.4. is consistent with that in Annex 2.	☑	☑										
A.4.5. Confirmation that the small-scale project activity is not a debundled component of a large scale project activity														
A.4.5.1. Is there a registered small-scale CDM site of a project activity or an application to register another small-scale CDM project activity: with the following characteristics:	1,3, 15	<div><div><b>Corrective Action Request 10:</b> Information in the PDD should be revised. All debundling criteria should be mentioned in the PDD.</div><table><tr><td>Debundling checklist</td><td>Yes / No</td></tr><tr><td>the same project participants?</td><td>No</td></tr><tr><td>In the same project category and technology/measure?</td><td>No</td></tr><tr><td>Registered within previous two years? Or in registration process?</td><td>No</td></tr><tr><td>Whose boundary is within 1 km of the project boundary of the small scale project activity (sites) under consideration?</td><td>No</td></tr></table></div>	Debundling checklist	Yes / No	the same project participants?	No	In the same project category and technology/measure?	No	Registered within previous two years? Or in registration process?	No	Whose boundary is within 1 km of the project boundary of the small scale project activity (sites) under consideration?	No	CAR 10	☑
Debundling checklist	Yes / No													
the same project participants?	No													
In the same project category and technology/measure?	No													
Registered within previous two years? Or in registration process?	No													
Whose boundary is within 1 km of the project boundary of the small scale project activity (sites) under consideration?	No													
A.4.5.2. If the answer to all the above question is 'Yes' then does the total size of the small scale project activity combined with previously registered small scale CDM project activity exceeds the limits of small scale CDM project activities?	---	N/A	☑	☑										

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD								
B. Application of a baseline and monitoring methodology												
B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity												
B.1.1.1.Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1,3, 15	The PDD clearly indicates the SSC methodology “AMS-III.D “Methane Recovery in agricultural and agro industrial activities” version 13”.	☑	☑								
B.1.1.2.Is the applied version the most recent one and / or is this version still applicable?	1,3, 15	At the time of uploading the PDD for the GSP, version 13 has been the most recent version.	☑	☑								
B.2. Justification of the choice of the project category												
B.2.1. Is the applied methodology considered the most appropriate one?	1,3, 15	Yes. The applied methodology is considered to be the most appropriate one.	☑	☑								
Integrate the required amount of sub-checklists on the applicability criteria as given by the applied methodology and comment on at least every line answered with “No”; <a href="#">Replace blue text</a>												
B.2.1.1.Criterion 1:  Does the project category comprise methane recovery and destruction from manure and wastes from agricultural or agro-industrial activities that would be decaying anaerobically in the absence of the project activity by (a) Installing methane recovery and combustion system to an existing source of methane emissions, or (b) Changing the management practice of a biogenic waste or raw material in order to achieve the controlled anaerobic digestion equipped with methane recovery and combustion system?	1,3, 15	<table><tr><th>Applicability checklist</th><th>Yes / No / NA</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	☑	☑
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											



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B.2.1.2. Criterion 2 (a): Does the project activity satisfies the following conditions?:  (a) The sludge is handled aerobically, and in case of soil application of the final sludge the proper conditions and procedures (not resulting in methane emissions) are ensured.	1,2,3,15	<div>During the on-site visit it was confirmed by the project developer</div> <table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PDD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>No</td></tr></table> <div>and by the farmers that the final sludge will be used for fertiirrigation.</div> <div><b>Corrective Action Request 11:</b> Applicability criterion 2 (a) of the methodology should be mentioned in the PDD.</div>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	CAR 11	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
B.2.1.3. Criterion 2 (b) (b)The technical measures used ensure that all bio-gas produced by the digester is used or flared?	1,2,3,15	<div><b>Corrective Action Request 12:</b> Applicability criterion 2 (b) of the methodology should be mentioned in the PDD.</div> <table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PDD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>No</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	CAR 12	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
B.2.1.4.Criterion 3:  Does the project recover methane from landfills or includes waste water treatment?	--	<div>Not applicable.</div> <table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PDD?</td><td>N/A</td></tr><tr><td>Compliance provable?</td><td>N/A</td></tr><tr><td>Compliance verified?</td><td>N/A</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	N/A	Compliance provable?	N/A	Compliance verified?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	N/A											
Compliance provable?	N/A											
Compliance verified?	N/A											
B.2.1.5.Criterion 4:	1,2,3,15		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								

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Are the measures limited to those that result in emission reductions of less than or equal to 60 kt CO2 equivalent annually? .		Applicability checklist			
		Yes / No / NA			
		Criterion discussed in the PDD?			
		Yes			
		Compliance provable?			
		Yes			
B.3. Description of the project boundary					
B.3.1. Does the project boundary include physical, geographical site(s) where the methane recovery facilities are taking place?	1,2,3,15	The project boundary includes the farms where the methane recovery and destruction takes place. <b><u>Corrective Action Request 13:</u></b> It is strongly recommended by the validation team to illustrate the project boundary in a schematic figure.		CAR 13	☑
B.3.2. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	1,2,3,15	Yes. The spatial and technological boundaries were verified on-site. They comply with the discussion provided in the PDD. However, see B.3.1.		CAR 13	☑
B.4. Description of baseline and its development					
Integrate questions concerning the determination of the additionality as provided by the methodology applied or insert the module provided when applying the “additionality tool”; Replace blue text, if necessary					
B.4.1. Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?	1,2,3,15,16	Technically feasible baseline scenarion alternatives to the project activity have been identified and discussed by the PDD. However, the list may not be considered as complete, as the IPCC 2006 guidelines mentions still other alternatives like: Liquid/Slurry Daily spread		CAR 14	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		<p>Burned for fuel                      Deep bedding                      Aerobic treatment  <b><u>Corrective Action Request 14:</u></b>                      The alternatives Liquid/Slurry, daily spread, burned for fuel, deep bedding, aerobic treatment mentioned in the IPCC 2006 guidelines should be still mentioned in the PDD.</p>		
B.4.2. Does the project identify correctly and excludes those options not in line with regulatory or legal requirements?	1,2,3,15	<p><b><u>Corrective Action Request 15:</u></b>                      The PDD should mention whether all options are in line with regulatory or legal requirements. Those options, which are not in line with regulatory or legal requirements, should be excluded from further consideration.</p>	CAR 15	<input checked="" type="checkbox"/>
B.4.3. Have applicable regulatory or legal requirements been identified?	1,2,3,15	<p>The alternative “burned for fuel” is not allowed in the host country. See B.4.2.</p>	CAR 15	<input checked="" type="checkbox"/>
B.4.4. Does the PDD identify the most likely baseline scenario? <i>[“...in the absence of the project activity, biomass and other organic matter are left to decay anaerobically within the project boundary and methane is emitted to the atmosphere.”]</i>	1,2,3,15	Anaerobic lagoons are identified as the most likely baseline scenario.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.5. Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc)?	1,2,3,8,15	Yes. The document “First Brazilian inventory of greenhouse gas emissions (Primeiro Inventario Brasileiro de emissões antropicas de gases de efeito estufa), Science and Technology ministry, 2006 mentions that anaerobic lagoons and tanks are the pre-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		dominant scenario in Brazil.		
B.4.6. Is the identified baseline scenario in line with regulatory or legal requirements?	1,2,3 ,8,15	There are no regulatory or legal requirements in Brazil regarding manure management. However it is forbidden to through effluents directly to water resources (national law) or to burn the excrements.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity:</b>				
Integrate questions concerning the determination of the additionality when applying the “additionality tool”; Replace blue text, if necessary				
B.5.1. In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	---	As the additionality tool is not applied, B.5.1.-B.5.12. are not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.2. In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	---	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.3. In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	---	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.4. In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	---	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.5. In case of Option II or Option III: Is the calculation of financial figures for this indi-	----	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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cator correctly done for all alternatives and the project activity?					
B.5.6.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	---	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.7.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	----	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.8.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	----	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.9.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	----	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.10.	Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	----	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.11.	If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)?	-----	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.12.	Is it appropriately explained how the ap-	-----	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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proval of the project activity will help to overcome the economic and financial hurdles or other identified barriers (step 5)?																			
If the additionality tool has not been used please answer B.5.13 to B.5.18																			
B.5.13. If the starting date of the project activity is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the project activity?	1,2,3	Not applicable as the starting date of the project activity is after the date of validation.	☑	☑															
B.5.14. Is a complete list of barriers developed that prevents the project activity to occur?	1,2,3,20	The PDD mentions investment, technological and legal barriers. These barriers prevent the project activity (without the incentives of CDM) to occur.	☑	☑															
B.5.15. Does this list include at least one of the following barriers?	1,2,3,20	<table><tr><th>Barriers</th><th>Discussed?</th><th>Verifiable?</th></tr><tr><td>Investment</td><td>Yes</td><td>No</td></tr><tr><td>Technological</td><td>Yes</td><td>No</td></tr><tr><td>Due to prevailing practice</td><td>No</td><td>No</td></tr><tr><td>Other – Legal barriers</td><td>Yes</td><td>No</td></tr></table> See B.5.17.	Barriers	Discussed?	Verifiable?	Investment	Yes	No	Technological	Yes	No	Due to prevailing practice	No	No	Other – Legal barriers	Yes	No	See CAR 16	☑
Barriers	Discussed?	Verifiable?																	
Investment	Yes	No																	
Technological	Yes	No																	
Due to prevailing practice	No	No																	
Other – Legal barriers	Yes	No																	
B.5.16. Does the discussion sufficiently take into account relevant national and/or sectoral policies?	1,2,3	Yes. There is no specific legislation (nor a forthcoming law to regulate that issue) demanding specific effluent treatment or GHG control.	☑	☑															
B.5.17. Is transparent and documented evidence provided on the existence and significance of these barriers?	1,2,3	<b>Corrective Action Request 16:</b> The barriers which are mentioned in the PDD should be evidenced by literature references and/or documents.	CAR 16	☑															

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B.5.18. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	1,2,3	Yes. The PDD appropriately explains how the approval of the project activity asCDM project will help to overcome the identified barriers.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.6. Emissions reductions</b>				
<i>Integrate questions concerning methodological choices and selection of options, if necessary</i>				
<i>B.6.1. Explanation of methodological choices</i>				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1,3, 16	<b><u>Corrective Action Request 17:</u></b> B.6.1. of the PDD has better to show via formulae how the TIER 2 approach was applied. All formulae regarding baseline emissions, project emissions, leakage emissions and emission reductions should be mentioned in B.6.1.	<b>CAR 17</b>	<input checked="" type="checkbox"/>
B.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1,3, 16	See B.6.1.1.	<b>CAR 17</b>	<input checked="" type="checkbox"/>
B.6.1.3. Does the project emissions consist of CO <sub>2</sub> emissions from use of fossil fuels or electricity for the operation of the project activity?	1,2,3 ,15	The pre-project situation involves some use of fossil fuel use or electricity consumption for pumping purposes. There is no increase of fossil fuel due to the proposed project activity. There is no significant increase in energy consumption due to the project activity. The total electricity consumption of the electric pumps and the gas compressors for all farms is approximately 3 MWh per year. However, methane emissions from digester leakage and methane emissions from inefficiency in methane flaring will be considered.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B.6.1.4. Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameters to be used and / or monitored?	1,3	See B.6.1.1.	CAR 17	<input checked="" type="checkbox"/>
B.6.1.5. Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1,3	See B.6.1.1.	CAR 17	<input checked="" type="checkbox"/>
B.6.1.6. Are the formulae required for the determination of emission reductions correctly presented?	1,3	See B.6.1.1.	CAR 17	<input checked="" type="checkbox"/>
<b>B.6.2. Data and parameters that are available at validation</b>				
B.6.2.1. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1,2,3,15,16	<p>The list of parameters presented in chapter B.6.2. is not considered to be complete.</p> <p><b><u>Corrective Action Request 18:</u></b></p> <p>There are missing the following parameters. Project participants are requested to include the parameters in B.6.2. of the PDD:</p> <p>-IPCC tier 2 related parameters:</p> <ul style="list-style-type: none"> <li>• Vs</li> <li>• Vs, site for each swine group (like sows, finisher, gilts, sows in gestation, boars, piglets, nursery)</li> <li>• Bo</li> <li>• MCF (anaerobic lagoon)</li> <li>• MCF (biodigester)</li> <li>• BW (Body Weight of animals), default</li> </ul>	CAR 18	<input checked="" type="checkbox"/>



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Date of Completion: 05/03/2008

Number of Pages: 17



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD																		
		<ul style="list-style-type: none"><li>BW (Body Weight of animals), site</li><li>- population and type of animals</li><li>-all parameters related with the calculation of project emissions</li></ul>																				
B.6.2.2.Comment on any line answered with “No”																						
a. Parameter 1: amount of the waste or raw material	---	<div>Not applicable.</div> <table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	NA																					
Data unit correctly expressed?	NA																					
Appropriate description of parameter?	NA																					
Source clearly referenced?	NA																					
Correct value provided?	NA																					
Has this value been verified?	NA																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	NA																					
b. Parameter 2: most recent IPCC tier 2 (i.e. Vs, Bo, MCF)	1,2,3,15,16	<div>See B.6.2.1.</div> <table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR 18	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
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c. Parameter 3 (only for Animal WMS):population and type of animals.	1,2,3 ,15, 16	<div>See B.6.2.1.</div> <table> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> <tr><td>Title in line with methodology?</td><td>No</td></tr> <tr><td>Data unit correctly expressed?</td><td>No</td></tr> <tr><td>Appropriate description of parameter?</td><td>No</td></tr> <tr><td>Source clearly referenced?</td><td>No</td></tr> <tr><td>Correct value provided?</td><td>No</td></tr> <tr><td>Has this value been verified?</td><td>No</td></tr> <tr><td>Choice of data correctly justified?</td><td>No</td></tr> <tr><td>Measurement method correctly described?</td><td>No</td></tr> </table> <div>If the recovered methane is used for heat or electricity generation, please include the corresponding protocol</div>	Data Checklist	Yes / No / NA	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	CAR 18	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	No																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	No																					
Source clearly referenced?	No																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
d. Methane Global Warming Potential, CH4 GWP	1,2,3 ,15, 16	<div><b><u>Corrective Action Request 19:</u></b></div> <div>Regarding the parameter “Methane Global Warming Potential”: Source has to be mentioned in more detail.</div> <table> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> <tr><td>Title in line with methodology?</td><td>Yes</td></tr> <tr><td>Data unit correctly expressed?</td><td>Yes</td></tr> <tr><td>Appropriate description of parameter?</td><td>Yes</td></tr> <tr><td>Source clearly referenced?</td><td>No</td></tr> <tr><td>Correct value provided?</td><td>Yes</td></tr> <tr><td>Has this value been verified?</td><td>Yes</td></tr> <tr><td>Choice of data correctly justified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	No	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A	CAR 19	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
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<b>B.6.3. Ex-ante calculation of emission reductions</b>				
B.6.3.1. Does the emission reduction achieved by the project activity was estimated ex-ante in the PDD by the formulae described in the Methodology?	1,2,3 ,15, 16	The emission reduction achieved by the project activity was estimated ex-ante by using the TIER 2 IPCC approach as described in the methodology.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3.2. Will the actual emissions reduction achieved by the project during the crediting period be calculated using the formulae described in the Methodology?	1,2,3 ,15, 16	Yes. The formulae described in the methodology are applied to calculate the actual emissions reduction.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3.3. Is the projection based on the same procedures as used for future monitoring?	1,2,3 ,11, 12, 15, 16, 18,	<ol style="list-style-type: none"> <li>The projection of emission reductions does not consider a solid separator at <b>Varzea</b> site. Besides, the fact that retention time is not clear and probably quite low, the information has been obtained on-site that liquid effluents are steadily taken out from the first lagoon and solids to be used for fertiirrigation before entering the first lagoon.</li> <li>Numbers of heads indicated in the PDD of all four farms which participate in the project activity are not the same as the numbers which were provided during the on-site visit.</li> </ol> <p><b>Corrective Action Request 20:</b></p> <ol style="list-style-type: none"> <li>Regarding the farm <b>Varzea</b>: The project developer Amazon S/A said during the on-site visit that a laboratory will be contracted to examine how much solid parts are lost due to the use of the solid separator and to calculate the retention time of the liquids of the first lagoon. The result of this laboratory test should be submitted to the validation team.</li> <li>Number of heads of all farms should be revised in the PDD and the excel calculation sheet.</li> </ol>	<b>CAR 20</b>	<input checked="" type="checkbox"/>
B.6.3.4. Are the GHG calculations documented	1,3	GHG calculations are not documented in a complete and trans-	<b>CAR</b>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
in a complete and transparent manner?		parent manner. <b><u>Corrective Action Request 21:</u></b> B.6.3. should document the GHG calculations in a transparent manner (with real numbers).	21	
B.6.3.5.If there is more than one component of the project activity, then, are emission reduction calculations provided separately for each component?	----	Not applicable, as CER credits are only claimed for the reduction of methane emissions.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3.6.Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1,2,3 ,11, 12 15, 16, 18	Yes. The data provided in this section is consistent with data presented in other chapters of the PDD. However, see F.3.2. and B.6.4.5.	<b>CAR 22</b> <b>CAR 46</b>	<input checked="" type="checkbox"/>
<b>B.6.4. Summary of the ex-ante estimation of emission reductions</b>				
B.6.4.1.Will the project result in fewer GHG emissions than the baseline scenario?	1,2,3	The project will definitely result in fewer GHG emissions than the baseline scenario.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.2.Is the form/table required for the indication of projected emission reductions correctly applied?	3	Yes. Project emissions, baseline emissions, leakage emissions and emission reductions are indicated in the Table of B.6.4. However, see A.4.3.1.	<b>CAR 9</b>	<input checked="" type="checkbox"/>
B.6.4.3.If the project activity involves more than one component, is separate table included for each of the component.	----	Not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.4.Do these values comply with small-	1,2,3	Yes. Annual emission reductions are below the limit of 60.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
scale criteria for every year?	,15	tCO2e.		
B.6.4.5. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1,2,3 ,7,9	<p>During the on-site visit it was obtained information that construction start of the project activity is November 14, 2007.</p> <p>The crediting start is indicated as 15/02/2008 in the PDD. This is not realistic due to on-going construction works until March 2008 and due to the EB requirement that the period between submission for registration and start of the crediting period has to be at least 8 weeks.</p> <p><b><u>Corrective Action Request 22:</u></b></p> <ol style="list-style-type: none"> <li>1. Project participants are requested to change the start of the project activity to November 14, 2007.</li> <li>2. The start of the crediting period should be modified to a more realistic date.</li> </ol>	<b>CAR 22</b>	<input checked="" type="checkbox"/>
B.6.4.6. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1,2,3 ,11, 12 15, 16, 18	<p>Yes. The data provided in this section is consistent with data presented in other chapters of the PDD.</p> <p>However, see F.3.2. and B.6.4.5.</p>	<b>See CAR 22</b> <b>See CAR 46</b>	<input checked="" type="checkbox"/>
<b>B.7. Application of the monitoring methodology and description of the monitoring plan</b>				
<b>B.7.1. Data and parameters monitored</b>				
B.7.1.1. Will the yearly emission reductions be the direct measurement of the amount of methane fuelled or flared?	1,2,3 ,15	<p>Yes. The yearly emission reductions will be the direct measurement of the amount of methane flared.</p> <p><b><u>Corrective Action Request 23:</u></b></p> <p>The direct measurement should refer to methane instead of bio-</p>	<b>CAR 23</b>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD								
		gas.										
B.7.1.2. Will the amount of methane recovered and fuelled or flared be monitored ex-post using flow meters?	1,2,3,15	The PDD does not mention anything about it. <b><u>Corrective Action Request 24:</u></b> The PDD should mention the use of flow-meters (including indication of the specifications of the meter like accuracy, calibration requirements, model etc.) in order to monitor the amount of methane recovered and flared.	CAR 24	☑								
B.7.1.3. Will the fraction of methane in the biogas be measured with a continuous analyser or, alternatively, with periodical measures at a 95% confidence level.	1,2,3,15	Nothing mentioned in the PDD. <b><u>Corrective Action Request 25:</u></b> The PDD should mention whether the fraction of methane in the biogas will be measured with a continuous analyser or alternatively with periodical measures at a 95 % confidence level.	CAR 25	☑								
B.7.1.4. If the project activity includes an enclosed flare, one of the two following options shall be used to determine the efficiency of the flaring process: a. to adopt a 90% default value or b. to perform a continuous monitoring of the efficiency.	1,2,3,15	There will be used enclosed flares in the project activity. <b><u>Corrective Action Request 26:</u></b> The PDD does not explicitly mention that an enclosed flare is used in the project activity. Please add in the PDD and submit an evidence for the usage of enclosed flares. <table><tr><td>Enclosed flare checklist</td><td>Yes / No / NA</td></tr><tr><td>Option discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Enclosed flare checklist	Yes / No / NA	Option discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	CAR 26	☑
Enclosed flare checklist	Yes / No / NA											
Option discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											
B.7.1.5. If option a. is chosen, will a continuous check of compliance with the manufacturer's specification of the flare device be done? Is it included in the PDD?	1,2,3,15	The PDD mentions that continuous checking of temperature and biogas flow rate is done.	☑	☑								
B.7.1.6. If option b. is chosen, will the Meth-	----	Not applicable, as option (a) is chosen.	☑	☑								

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD														
odological Tool to determine project emission from flaring gases containing methane be used? Is it included in the PDD?																		
B.7.1.7. If the project activity includes an open flare, will the 50% default value be used? Is it included in the PDD?	-----	Not applicable, as the project uses an enclosed flare.	☑	☑														
B.7.1.8.Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	1,2,3 ,15	<p>The list of parameters presented in chapter B.7.1 is not considered to be complete.</p> <p><b><u>Corrective Action Request 27:</u></b></p> <p>The following parameters are missing and should be included in B.7.1. of the PDD:</p> <ul style="list-style-type: none"><li>-biogas pressure</li><li>-combusted gas</li><li>-fraction of time in which the gas is combusted in the flare</li></ul>	<b>CAR 27</b>	☑														
B.7.1.9.Comment on any line answered with “No”																		
a. Parameter 1: biogas flow	1,2,3 ,15	<p><b><u>Corrective Action Request 28:</u></b></p> <p>Regarding the parameter biogas flow: The applied value, measurement method (“The frequency of the calibrations and control procedures would be different for each application” is not clear) and QA/QC procedures should be revised. A reference to standards and accuracy should be indicated.</p> <table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	No	Has this value been verified?	No	<b>CAR 28</b>	☑
Monitoring Checklist	Yes / No																	
Title in line with methodology?	Yes																	
Data unit correctly expressed?	Yes																	
Appropriate description of parameter?	Yes																	
Source clearly referenced?	Yes																	
Correct value provided for estimation?	No																	
Has this value been verified?	No																	

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		Has this value been verified?	No																										
		Measurement method correctly described?	No																										
		Correct reference to standards?	No																										
		Indication of accuracy provided?	No																										
		QA/QC procedures described?	No																										
		QA/QC procedures appropriate?	No																										
b. Parameter 2: biogas temperature	1,2,3,15	<b>Corrective Action Request 29:</b> Regarding the parameter “biogas temperature”: measurement method should be revised. A reference to standards, accuracy and QA/QC procedures should be indicated. <table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR 29	☑
Monitoring Checklist	Yes / No																												
Title in line with methodology?	Yes																												
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Correct reference to standards?	No																												
Indication of accuracy provided?	No																												
QA/QC procedures described?	No																												
QA/QC procedures appropriate?	No																												
c. Parameter 3: biogas pressure	1,2,3,15	See B.7.1.8. <table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	No	See CAR 29	☑																				
Monitoring Checklist	Yes / No																												
Title in line with methodology?	No																												



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Indication of accuracy provided?	No																												
QA/QC procedures described?	No																												
QA/QC procedures appropriate?	No																												
d. Parameter 4: fraction of CH4	1,2,3,15	<p><b><u>Corrective Action Request 30:</u></b></p> <p>Regarding the parameter “fraction of CH4”: measurement method and QA/QC procedures should be revised. A reference to standards and accuracy should be indicated.</p> <table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR 30	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	Yes																												
Data unit correctly expressed?	Yes																												
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e. Parameter 5: flare efficiency	1,2,3,15	<p><b><u>Corrective Action Request 31:</u></b> Regarding the parameter “flare efficiency”: Data unit, description, source, measurement method, QA/QC procedures should be re-vised. A reference to standards and accuracy should be indicated.</p> <table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR 31	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
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Correct value provided for estimation?	Yes																											
Has this value been verified?	Yes																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
f. Parameter 6: combusted gas	1,2,3,15	<p>See B.7.1.8.</p> <table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	See CAR 27	<input checked="" type="checkbox"/>										
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											

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		Has this value been verified?	No		
		Measurement method correctly described?	No		
		Correct reference to standards?	No		
		Indication of accuracy provided?	No		
		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		
g. Parameter 7: fraction of time in which the gas is combusted in the flare	1,2,3,15	See B.7.1.8.		See CAR 27	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	No		
		Data unit correctly expressed?	No		
		Appropriate description of parameter?	No		
		Source clearly referenced?	No		
		Correct value provided for estimation?	No		
		Has this value been verified?	No		
		Measurement method correctly described?	No		
		Correct reference to standards?	No		
		Indication of accuracy provided?	No		
		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		
h. Parameter 8:Soil application	1,2,3,15	<b>Corrective Action Request 32:</b> Regarding the parameter “Soil application”: QA/QC procedures have to be explained.		CAR 32	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	Yes		
		Data unit correctly expressed?	N/A		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	Yes		

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		Source clearly referenced?	Yes		
		Correct value provided for estimation?	N/A		
		Has this value been verified?	N/A		
		Measurement method correctly described?	Yes		
		Correct reference to standards?	N/A		
		Indication of accuracy provided?	N/A		
		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		
B.7.2. Description of the monitoring plan					
B.7.2.1.Is the operational and management structure clearly described and in compliance with the envisioned situation?	1,2,3	Not described yet in the PDD. <b><u>Corrective Action Request 33:</u></b> The operational and management structure as well as the responsibilities and arrangements for data collection and archiving have to be explained in the PDD.		CAR 33	☑
B.7.2.2.Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1,2,3	See B.7.2.1.		See CAR 33	☑
Full fit the following check lists concerning the data that should be described in the PDD and monitored during he crediting period, and comment on at least every line answered with “No					
B.7.2.3. Method for the integration of terms in equations of the methodology to obtain the results for one year of measurements within the confidence level.	1,2,3,15	Nothing mentioned in B.7.2. of the PDD yet. <b><u>Corrective Action Request 34:</u></b> The methods for integration of the terms in equation “captured and destroyed methane” and “emission reductions” should be mentioned in the PDD (in B.7.2. of the Monitoring Plan).		CAR 34	☑
		Monitoring checklist	Yes / No		
		Described in the PDD?	No		
		Will be monitored during the crediting	CAR 34		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PPD in GSP	Final PDD						
		<table><tr><td>period?</td><td></td></tr></table>		period?							
period?											
B.7.2.4. Methods and instruments used for metering, recording and processing the data obtained.	1,2,3,15	<p><b><u>Corrective Action Request 35:</u></b> Methods and instruments used for metering, recording and processing of the data should be indicated in B.7.2. See also B.7.1.2.</p> <table><tr><td>Monitoring checklist</td><td>Yes / No</td></tr><tr><td>Described in the PDD?</td><td>No</td></tr><tr><td>Will be monitored during the crediting period?</td><td>No</td></tr></table>		Monitoring checklist	Yes / No	Described in the PDD?	No	Will be monitored during the crediting period?	No	CAR 35	<input checked="" type="checkbox"/>
Monitoring checklist	Yes / No										
Described in the PDD?	No										
Will be monitored during the crediting period?	No										
B.7.2.5. In case of soil application of the final sludge, is the proper application (not resulting in methane emissions) included in the monitoring plan?	1,2,3,15	<p>Nothing mentioned in B.7.2. of the PDD yet. <b><u>Corrective Action Requests 36:</u></b> The proper application of the final sludge should be included in the monitoring plan (B.7.2) of the PDD.</p>		CAR 36	<input checked="" type="checkbox"/>						
B.7.2.6. Are on-site inspections for each verification period for each individual farm included in the monitoring plan?	1,2,3,15	<p>Nothing mentioned in B.7.2. of the PDD yet. <b><u>Corrective Action Requests 37:</u></b> The PDD should mention that on-site inspections for each verification period for each individual farm are required.</p>		CAR 37	<input checked="" type="checkbox"/>						
B.7.2.7.If the project activity is under a programme of activities, are the conditions for use of this methodology in a project activity under a programme of activities applied?	---	Not applicable.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
B.7.2.8.Does the monitoring plan provide current good monitoring practice?	1,2,3,15	See B.7.2.3.-B.7.2.6.		See CAR 34-37	<input checked="" type="checkbox"/>						

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B.7.2.9.If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1,2,3,15	<b><u>Corrective Action Request 38:</u></b> The electronic chart which is mentioned in Annex 4 of the PDD should be updated and submitted to the validation team.	<b>CAR 38</b>	<input checked="" type="checkbox"/>
<b>B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)</b>				
B.8.1.1.Is there any indication of a date when the baseline was determined?	1,2,3	Yes. The baseline was determined on 17/10/2007.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.2.Has dd/mm/yyyy format been used to indicate the date.	3	Yes.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.3.Is this consistent with the time line of the PDD history?	1,2,3	Yes. It is consistent with the time line of the PDD history.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.4.Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1,2,3	The PDD informs that Amazon Carbon S/S Ltda. has been responsible for the application of the baseline and monitoring methodology. This is consistent with the actual situation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.5.Is information provided whether this person / entity is also considered a project participant?	1,2,3	The PDD does not inform that Amazon Carbon S/S Ltda. is project participant of the project activity. <b><u>Corrective Action Request 39:</u></b> The PDD should inform (in B.8.) that Amazon Carbon S/S Ltda. is project participant of the project activity.	<b>CAR 39</b>	<input checked="" type="checkbox"/>
<b>C. Duration of the project activity / crediting period</b>				
<b>C.1. Duration of the project activity</b>				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reason-	1,2,3,7,9	The starting date of the project activity is determined as December, 01, 2007 in the PDD. However, the construction starting date	<b>CAR 22</b>	<input checked="" type="checkbox"/>

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able?		was changed to November 14, 2007. See B.6.4.5. The lifetime of the project activity is clearly defined with 25 years.		
<b>C.2. Choice of the crediting period and related information</b>				
C.2.1. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	1,2,3 ,7,9	The crediting period is defined as fixed crediting period of 10 years. The start is determined for February 15, 2008 in the PDD. This is not realistic due to on-going construction works until March 2008 and due to the EB requirement that the period between submission for registration and start of the crediting period has to be at least 8 weeks. See B.6.4.5.	See CAR 22	<input checked="" type="checkbox"/>
C.2.2. Has dd/mm/yyyy format been used to indicate the start date of the crediting period.	3	Yes. The format dd/mm/yyyy has been used to indicate the starting date of the crediting period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>D. Environmental impacts</b>				
<b>D.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity:</b>				
D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved? If yes answer also D.1.2 to D.1.4	1,2,3	There is no EIA necessary for this kind of project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?	1,2,3	Yes. The analysis of the environmental impacts of the project activity has been sufficiently described. There are only positive environmental impacts.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.3. Will the project create any adverse environmental effects?	1,2,3	There are no adverse environmental effects related due to the project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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D.1.4. Were transboundary environmental impacts identified in the analysis?	1,2,3	There are no transboundary environmental impacts related with the project activity. <b><u>Corrective Action Request 40:</u></b> The PDD should inform that there are no transboundary environmental impacts related with the project activity.	CAR 40	<input checked="" type="checkbox"/>
<b>D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party</b>				
D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?	1,2,3	Yes. Only positive environmental impacts are related with the project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2.2. Does the project comply with environmental legislation in the host country?	1,2,3,4	Valid environmental licenses respectively protocols have been submitted to the validation team (see IRL) and A.2.2.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E. Stakeholders' comments</b>				
<b>E.1. Brief description how comments by local stakeholders have been invited and compiled</b>				
E.1.1. Have relevant stakeholders been consulted?	1,2,3,10	Relevant stakeholders have been consulted. 15 Invitations to stakeholders have been presented during the on-site visit. However, the PDD does not inform who are the stakeholders. <b><u>Corrective Action Request 41:</u></b> The PDD should inform in E.1. who are the consulted stakeholders.	CAR 41	<input checked="" type="checkbox"/>
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	1,2,3,10	<b><u>Corrective Action Request 42:</u></b> The PDD should inform in E.1. which media have been used to	CAR 42	<input checked="" type="checkbox"/>



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		invite stakeholders.		
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1,2,3,10	The Brazilian DNA gives guidance how the local stakeholder process has to be conducted. The validation team may confirm that the process has been performed as required.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1,2,3,10	See E.1.1. and E.1.2.	See CAR 41 See CAR 42	<input checked="" type="checkbox"/>
<b>E.2.Summary of the comments received</b>				
E.2.1. Is a summary of the received stakeholder comments provided?	1,2,3,10	<b><u>Corrective Action Request 43:</u></b> The PDD should inform whether negative comments have been received.	CAR 43	<input checked="" type="checkbox"/>
<b>E.3.Report on how due account was taken of any comments received</b>				
E.3.1. Has due account been taken of any stakeholder comments received?	1,2,3,10	Yes. It has been taken due account of stakeholder comments. <b><u>Corrective Action Request 44:</u></b> It should be mentioned in E.3. that also written comments have been received and they had only positive character.	CAR 44	<input checked="" type="checkbox"/>
<b>F. Annexes 1 – 4</b>				
<b>F.1.Annex 1: Contact Information</b>				
F.1.1. Is the information provided consistent with the one given under section A.3?	1,2,3	The information provided in Annex 1 is consistent with the one given in section A.3.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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F.1.2. Is the information on all private participants and directly involved Parties presented?	1,2,3	Yes. Information on all private participants (Amazon and Cotriba) is presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.2. Annex 2: Information regarding public fundings</b>				
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1,3	No public funding is involved. This information is consistent with the actual situation presented by the project participants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I countries does not result in a diversion of ODA?	1,3	Not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.3. Annex 3: Baseline information</b>				
F.3.1. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?	1,2,3 ,11, 12, 16, 18	Not all information is consistent. -Temperature is indicated with 18° C whereas in B.6.1. it is mentioned 19° C. -Density of methane is indicated with 0.67 kg/m3 which is equivalent to 0.00067 t/m3. However, B.6.2. states 0.000067 t/m3. <b><u>Corrective Action Request 45:</u></b> Information about temperature and methane density should be consistent throughout the whole PDD.	<b>CAR 45</b>	<input checked="" type="checkbox"/>
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1,2,3 ,11, 12, 16, 18	<b><u>Corrective Action Request 46:</u></b> The validation team has received shortly after the on-site visit new baseline data (in excel baseline calculation sheets "Plantel Cotriba" and "Reducoes atuais english"). The population numbers are different for all four farms, some TIER 2 parameters were changed. Please update the baseline information in Annex 3 of	<b>CAR 46</b>	<input checked="" type="checkbox"/>

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		the PDD and revise the emission reductions calculation throughout the PDD.		
F.3.3. Does the additional information substantiate / support statements given in other sections of the PDD?	1,2,3 ,11, 12, 16, 18	See F.3.2.	See CAR 46	<input checked="" type="checkbox"/>
<b>F.4. Annex 4: Monitoring information</b>				
F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1,2,3 ,15	See B.7.2.3.-7.2.6. and B.7.2.9.	See CAR 34-38	<input checked="" type="checkbox"/>
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1,2,3 ,15	See B.7.2.3.-7.2.6. and B.7.2.9.	See CAR 34-38	<input checked="" type="checkbox"/>
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1,2,3 ,15	See B.7.2.3.-7.2.6. and B.7.2.9.	See CAR 34-38	<input checked="" type="checkbox"/>

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**Table 2 Resolution of Corrective Action and Clarification Requests**

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team Conclusion
<p><b>Corrective Action Request 1:</b></p> <ul style="list-style-type: none"> <li>A.2. of the PDD should inform how many tons CO<sub>2</sub>e are reduced by the project activity.</li> <li>The PDD should inform in detail how the pre-project situation of each farm looked like (pre-project waste management system), amongst others description of animal structure, barns, open air lagoons (number and size), manure processing.</li> <li>It should be better explained what the project activity consists of and be explicitly mentioned how the project will reduce greenhouse gas emissions.</li> <li>It should be specified whether open or enclosed flares are used in the project activity.</li> </ul>	A.2.1.	<p>1. The amount of emission reductions that results from the project activity were added to section A.2 of the PDD*.</p> <p>2. The pre-project situation is summarised in section A.2 of the PDD (<i>The project proposes to replace the existing Animal Waste Management Systems (AWMS) by a lower-GHG emitting AWMS. Currently, swine waste is flushed from the barns and treated in sequential anaerobic lagoon management systems that results in high GHG emissions</i>) The pre-project situation for each farm was described in section A.4.1.4. In this section, details are given on the existing AWMS, including the number and size of anaerobic lagoons, containment areas, animal population, etc.</p> <p>3. In section A.2 of the PDD, it is explicitly defined how the project will reduce greenhouse gas emissions</p> <p>4. In section A.2 of the PDD it is defined that the project activity will use an enclosed flare to combust methane.</p> <p><b>*All citations to the PDD are referring to the Version 2 of the PDD, to be delivered with this Validation Protocol.</b></p> <p>Answer 23.01: The table on Section B.6.4 was revised to be consistent with the rest of the PDD.</p> <p>The number of anaerobic lagoons was corrected, as requested.</p>	<p><b>Answer 02.01.2008:</b></p> <p>1. The information about the amount of emission reductions has been included in the last submitted PDD. However, the figure is not consistent with B.6.4. Please revise.</p> <p>2.-Volta Gaucha: It has to be mentioned in the PDD that the 9<sup>th</sup> lagoon was built as a precaution and is not regularly used or mention that there are only 8 lagoons in use.</p> <p>-15 de Novembro: Please change the number of lagoons to 2 lagoons as identified on-site. Description of Varzea, regarding removal of solids and liquids is not 100 % correct. Please revise.</p> <p>3. Necessary information has been included in the last submitted PDD.</p>

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		Answer 06.02: The number of lagoons was corrected as requested.	<p>submitted PDD. <input checked="" type="checkbox"/></p> <p>4. The last submitted PDD indicates that enclosed flares will be used in the project activity. <input checked="" type="checkbox"/></p> <p><b><u>Answer 04.02.2008:</u></b></p> <p>1. Figure of emission reductions is consistent throughout the whole PDD. <input checked="" type="checkbox"/></p> <p>2. Volta Gaucha and 15 de Novembro: There are still mentioned 9 lagoons respectively 3 lagoons in the text (in A.4.1.4.). Please correct to 8 lagoons respectively 2 lagoons.</p> <p>Description of Varzea is o.k. <input checked="" type="checkbox"/></p> <p><b><u>Answer 08.02.2008:</u></b></p> <p>2. The numbers of lagoons have been corrected in the last submitted PDD.</p> <p>CAR 1 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 2:</u></b></p> <p>Project participants are requested to provide information (a.o. technical characteristics) in the PDD about the project equipment (biogas digester, flare, monitoring equipment (a.o. gas</p>	A.2.2.	Technical characteristics of the project equipment are described in section A.4.2 of the PDD. Project equipments are summarized in section A.2. A contract between Amazon Carbon and AVESUY, along with a list of purchased equipments purchased was sent to the	<p><b><u>Answer 02.01.2008:</u></b></p> <p>Technical characteristics of the project equipment have been included in the last submitted PDD (A.4.2.). Evi-</p>

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analyzer)). Besides, it should be submitted evidence that project equipment will be purchased.		Auditor as evidence.	dence about purchased equipment has been submitted to the validation team. CAR 2 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 3:</u></b> The technical specifications of the digester, the structure of the storage lagoons (positioned after the digester) and the flaring system have to be explained in more detail.	A.2.6.	The specifications are provided um section A.4.2 of the PDD. Answer 23.01: Additional information on the new AWMS was provided, including the measures of the digester cells and the amount of enclosed flares to be installed. Answer 06.02: The information on Várzea Grande was added to the PDD. Information on width and length was corrected.	<b><u>Answer 02.01.2008:</u></b> The technical specifications of digester and flaring system have been included in the last submitted PDD. However, information about number and size of biodigesters for each farm and storage lagoons after the digester have not been indicated yet. Project participants (PPs) are requested to add this information in the PDD. Besides, it should be indicated how many enclosed flares for each site are pretended to be installed. <b><u>Answer 04.02.2008:</u></b> Additional information on the new AWMS was provided. However, it should be confirmed by the project participants that width and length of the measures of the digester cells have not been mixed up. Besides, it should be clarified for Granja Varzea

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			<p>Grande whether new lagoons have been built for the biodigester or existing lagoons will be used for the biodigester cells.</p> <p><b><u>Answer 08.02.2008:</u></b></p> <p>In the last submitted PDD information on width and length was corrected. Besides, it was clarified for Granja Varzea that the existing lagoons will be used as storage lagoons.</p> <p>CAR 3 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 4:</u></b></p> <p>Please add the phrase in A.3.: “(*) In accordance with the “CDM Modalities and Procedures”, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the party (ies) involved is required.</p>	A.3.1.	<ul style="list-style-type: none"> <li>○ The phrase was added to section A.3 of the PDD.</li> </ul>	<p><b><u>Answer 02.01.2008:</u></b></p> <p>Phrase has been added in the last submitted PDD.</p> <p>CAR 4 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 5:</u></b></p> <ul style="list-style-type: none"> <li>• The map illustrated in the PDD should show not only Ibiruba city, but as well Quinze de Novembro city.</li> <li>• Beside the GPS coordinates it should be mentioned the addresses of each farm and the owner of each farm in the PDD.</li> </ul>	A.4.1.1.	<ul style="list-style-type: none"> <li>○ A different map was added to the PDD, showing both Ibirubá and Quinze de Novembro.</li> <li>○ The GPS coordinates taken during the on-site visit were added to the PDD.</li> <li>○ The correct address for each farm were added to Table A.1 of the PDD.</li> </ul>	<p><b><u>Answer 02.01.2008:</u></b></p> <p>Everything correctly indicated in the last submitted PDD.</p> <p>CAR 5 is considered to be resolved. <input checked="" type="checkbox"/></p>

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<ul style="list-style-type: none"> <li>GPS coordinates should be updated with the measurement data taken during the on-site audit by Amazon.</li> </ul>			
<b><u>Corrective Action Request 6:</u></b> The category “III.D, Methane Recovery in agricultural and agro industrial activities” has to be defined in A.4.2. of the PDD.	A.4.2.2.	The category was defined in section A.4.2 of the PDD.	<b><u>Answer 02.01.2008:</u></b> Category III-D has been included in the last submitted PDD. CAR 6 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 7:</u></b> The PDD should inform whether the project activity requires any technology transfer from Annex-I-countries, e.g. monitoring equipment.	A.4.2.4.	This was defined in section A.4.2 of the PDD.	<b><u>Answer 02.01.2008:</u></b> There is no technology transfer from Annex-I-countries necessary, except for the monitoring equipment, such as the gas analyzer and the flow meters. Information has been provided in the last submitted PDD. CAR 7 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 8:</u></b> -Information from AVESUY about training and maintenance efforts should be submitted to the validation team. -The PDD should inform, that AVESUY is responsible for training and maintenance efforts.	A.4.2.9.	Information regarding training for AWMS operating is defined in section A.4.2 of the PDD. Information about training was sent to the Auditor. Official document on training was sent to the Auditor.	<b><u>Answer 02.01.2008:</u></b> -A.4.2. of the last submitted PDD informs about training and maintenance efforts. <input checked="" type="checkbox"/> -Document issued by AVESUY about training is not signed. PPs are requested to submit a signed document (including date).



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			<b><u>Answer 04.02.2008:</u></b> A document signed by AVE-SUY about training has been submitted to the validation team. CAR 8 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 9:</u></b> Project participants are requested to indicate the period in month for the emission reductions of the first and the last year.	A.4.3.1.	This information was added to section A.4.3 of the PDD.	<b><u>Answer 02.01.2008:</u></b> Necessary information has been added. CAR 9 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 10:</u></b> Information in the PDD should be revised. All debundling criteria should be mentioned in the PDD.	A.4.5.1.	Information on debundling was defined in section A.4.5 of the PDD.	<b><u>Answer 02.01.2008:</u></b> Information on debundling has been included in A.4.5. of the last submitted PDD. CAR 10 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 11:</u></b> Applicability criterion 2 (a) of the methodology should be mentioned in the PDD.	B.2.1.2.	All applicability criteria of methodology III.D were defined in section B.2.	<b><u>Answer 02.01.2008:</u></b> Applicability criterion 2 (a) of the methodology has been included in the last submitted PDD. CAR 11 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 12:</u></b> Applicability criterion 2 (b) of the methodology should be mentioned in the PDD.	B.2.1.3.	All applicability criteria of methodology III.D were defined in section B.2.	<b><u>Answer 02.01.2008:</u></b> Applicability criterion 2 (b) of the methodology has been included in the last submitted

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			PDD. CAR 12 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 13:</u></b> It is strongly recommended by the validation team to illustrate the project boundary in a schematic figure.	B.3.1.	A figure was added to section B.3 of the PDD to illustrate project boundary.	<b><u>Answer 02.01.2008:</u></b> Project boundary is clearly illustrated in the last submitted PDD. CAR 13 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 14:</u></b> The alternatives Liquid/Slurry, daily spread, burned for fuel, deep bedding, aerobic treatment mentioned in the IPCC 2006 guidelines should be still mentioned in the PDD.	B.4.1.	The alternatives were added to section B.5 of the PDD.	<b><u>Answer 02.01.2008:</u></b> The alternatives have been included in the last submitted PDD. CAR 14 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 15:</u></b> The PDD should mention whether all options are in line with regulatory or legal requirements. Those options, which are not in line with regulatory or legal requirements should be excluded from further consideration.	B.4.2.	A "Consistency with mandatory laws and regulation item was added to section B.5 of the PDD. In this item, legal requirements are assessed base on <i>"Technical Criteria for Environmental Licensing for New Swine Raising Farms (Critérios Técnicos para o Licenciamento de Novos Empreendimentos Destinados à Suinocultura) of FEPAM"</i> .	<b><u>Answer 02.01.2008:</u></b> The only excluded scenario is the disposal of untreated manure to water streams or in Environmental Protected areas. CAR 15 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 16:</u></b> The barriers which are mentioned in the PDD should be evidenced by literature references and/or documents.	B.5.17.	Barriers are based on <i>EMBRAPA Technological Inventory for swine Waste Management Systems, 2003</i> and on the <i>First Brazilian inventory of greenhouse gas emissions (Primeiro Inventário Brasileiro de emissões antropicas de gases de efeito estufa)</i> , Science and Technology ministry, 2006. Answer 23.01: References are indicated in the end of	<b><u>Answer 02.01.2008:</u></b> References are indicated in the last submitted PDD, however very roughly. See CAR 48 <b><u>Answer 04.02.2008:</u></b>

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		the PDD, as requested in CAR 48. Answer 06.02: Corrected as requested in CAR 48.	See CAR 48 <b><u>Answer 08.02.2008:</u></b> CAR 16 is considered to be resolved as CAR 48 is also resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 17:</u></b> B.6.1. of the PDD has better to show via formulae how the TIER 2 approach was applied. All formulae regarding baseline emissions , project emissions, leakage emissions and emission reductions should be mentioned in B.6.1.	B.6.1.1.	All formulae used to estimate baseline emissions are described in section B.4 of the PDD. Formulae used to determine project emissions, leakage and emission reductions are described in section B.6.1 of the PDD.	<b><u>Answer 02.01.2008:</u></b> B.6.1. of the last submitted PDD is adequate. CAR 17 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 18:</u></b> There are missing the following parameters. Project participants are requested to include the parameters in B.6.2. of the PDD: -IPCC tier 2 related parameters: <ul style="list-style-type: none"> <li>• Vs</li> <li>• Vs, site for each swine group (like sows, finisher, gilts, sows in gestation, boars, piglets, nursery)</li> <li>• Bo</li> <li>• MCF (anaerobic lagoon)</li> <li>• MCF (biogas digester)</li> <li>• BW (Body Weight of animals), default</li> <li>• BW (Body Weight of animals), site</li> </ul> - population and type of animals -all parameters related with the calculation of project emissions	B.6.2.1.	All parameters related to baseline and project emissions were added to section B.6.2 of the PDD  Answer 23.01: The parameters were added to Section B.6.2 of the PDD.  Answer 06.02: The parameter was added to Section B.6.2.	<b><u>Answer 02.01.2008:</u></b> There are still missing the following parameters in B.6.2. of the PDD: - $N_a$ Average number of animals of the type i. - $TM_{RG,h}$ : Mass flow rate of methane in the residual gas in the hour $h$ . - $\eta_{flare}$ : Flare efficiency for methane destruction - CCH4 Methane concentration in biogas.  <b><u>Answer 04.02.2008:</u></b> There is still missing the parameter " $TM_{RG,h}$ : Mass flow rate of methane in the residual gas in the hour $h$ " in

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			<p>ual gas in the hour <math>h</math>." in B.6.2. of the PDD. Please include.</p> <p><b>Answer 08.02.2008:</b> The parameter "TM<sub>RG,h</sub>: Mass flow rate of methane in the residual gas in the hour <math>h</math>" has been included in the last submitted PDD. CAR 18 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b>Corrective Action Request 19:</b> Regarding the parameter "Methane Global Warming Potential": Source has to be mentioned in more detail.</p>	B.6.2.2.d)	<p>The correct source for this parameter was added to the PDD. Answer 23.01: Corrected as requested.</p> <p>Answer 06.02: The information was added as requested.</p>	<p><b>Answer 02.01.2008:</b> Regarding source: the parameter should refer to the IPCC guidelines 2006 Regarding data unit: Please indicate: tCO<sub>2</sub>/tCH<sub>4</sub>. Regarding description: Please add: "...valid for the relevant commitment period".</p> <p><b>Answer 04.02.2008:</b> Please add in description: "...valid for the relevant commitment period".</p> <p><b>Answer 08.02.2008:</b> Requested information has been included in the last submitted PDD. CAR 19 is considered to be resolved. <input checked="" type="checkbox"/></p>

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<p><b><u>Corrective Action Request 20:</u></b>  1.Regarding the farm <b>Varzea</b>: The project developer Amazon S/A said during the on-site visit that a laboratory will be contracted to examine how much solid parts are lost due to the use of the solid separator and to calculate the retention time of the liquids of the first lagoon. The result of this laboratory test should be submitted to the validation team.  2.Number of heads of all farms should be revised in the PDD and the excel calculation sheet.</p>	B.6.3.3.	<ol style="list-style-type: none"> <li>Analyses were made to determine the solid separator efficiency on organic matter (measured in Chemical Oxygen Demand) and Volatile solids removal. To account for solid removal for fertirrigation on the first lagoon, a 25 % solid removal conservative value was adopted.</li> <li>Animal population was determined according to the historical data provided by COTRIBÁ. A excel calculation sheet (<i>Plantel Cotribá English</i>) was sent to the TUV auditor.</li> </ol>	<p><b><u>Answer 02.01.2008:</u></b></p> <ol style="list-style-type: none"> <li>Approach may be accepted by the validation team as it is considered to be conservative.</li> <li>Numbers of heads of all farms have been revised and are correctly indicated in the last submitted PDD.</li> </ol> <p>CAR 20 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 21:</u></b>  B.6.3. should document the GHG calculations in a transparent manner (with real numbers).</p>	B.6.3.4.	GHG calculations were added in section B.6.3, in tables B.2 to B.5.	<p><b><u>Answer 02.01.2008:</u></b>  B.6.3. of the last submitted PDD documents the GHG calculations in a transparent manner.  CAR 21 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 22:</u></b>  1.Project participants are requested to change the start of the project activity to November 14, 2007.  2.The start of the crediting period should be modified to a more realistic date.</p>	B.6.4.5.	<p>The starting date of the project activity was defined in section C.1.1.  The start of the crediting period was changed to a more realistic date, as defined in section C.2.2.1.</p>	<p><b><u>Answer 02.01.2008:</u></b></p> <ol style="list-style-type: none"> <li>Starting date has been changed to November 14, 2007. <input checked="" type="checkbox"/></li> <li>Start of the crediting period has been modified to 01/07/2008. This is a more realistic date. <input checked="" type="checkbox"/></li> </ol>

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			CAR 22 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 23:</u></b> The direct measurement should refer to methane instead of biogas.	B.7.1.1.	This alteration was made as requested, in section B.7.1.	<b><u>Answer 02.01.2008:</u></b> This CAR is not relevant in the meantime anymore. CAR 23 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 24:</u></b> The PDD should mention the use of flow-meters (including indication of the specifications of the meter like accuracy, calibration requirements, model etc.) in order to monitor the amount of methane recovered and flared.	B.7.1.2.	Details about the flow meters are provided in section B.7.1. Answer 23.01: Additional information on flow meter calibration and technical specifications were added to the PDD Answer 06.02: Data on LD301 accuracy is available in Annex IV. The type K sensor is a simple device that integrates the enclosed flare system. It is not a separate equipment. The existing specifications were provided by the manufacturer and are described in Annex 4 of the PDD.	<b><u>Answer 02.01.2008:</u></b> Calibration requirements of the main metering instruments should be still provided to the validation team. <b><u>Answer 04.02.2008:</u></b> -Please provide for LD301 Smart Pressure Transmitter the accuracy in B.7.1. and/or Annex 4. - Please provide specifications of Type K sensors in Annex 4 of the PDD. <b><u>Answer 08.02.2008:</u></b> Answer may be accepted. CAR 24 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 25:</u></b> The PDD should mention whether the fraction of methane in the biogas will be measured with a continuous analyser or alternatively with periodical measures at a 95 % confidence level.	B.7.1.3.	The fraction of methane in biogas will be measured by periodical samples, as defined in Section B.7.1 of the PDD. Answer 23.01: The following was added to the PDD: <i>“Measured and recorded on a daily basis by dual wavelength Infra-red refrigerant gas sensors. This sensor</i>	<b><u>Answer 02.01.2008:</u></b> The fraction of methane in the biogas will be measured periodically (once a day). This information has been included in the last submitted

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		<i>has a accuracy of +/-2.5%. Analysis will be stored in PC terminals, organized in spread sheets. A 95% confidence level will be ensured through maintenance and calibration of gas sensors."</i>	PDD. What procedures are pre-tended to establish in order to guarantee the 95 % confidence level? <b><u>Answer 02.01.2008:</u></b> Information how to ensure a 95 % confidence level has been included into the PDD. CAR 25 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 26:</u></b> The PDD does not explicitly mention that an enclosed flare is used in the project activity. Please add in the PDD and submit an evidence for the usage of enclosed flares.	B.7.1.4.	The use of an enclosed flare was explicitly defined in section B.7.1. Evidences of the use of enclosed flare was sent to the Auditor.	<b><u>Answer 02.01.2008:</u></b> An official (signed) document issued by AVESUY evidencing the use of an enclosed flare has been submitted to the validation team. CAR 26 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 27:</u></b> The following parameters are missing and should be included in B.7.1. of the PDD: -biogas pressure -amount of methane flared -fraction of time in which the gas is combusted in the flare	B.7.1.8.	All parameters were added to section B.7.1 of the PDD. Answer 23.01: The requested parameters were added as requested.  Answer 06.02: This item was clarified in Sections B.6.1 and B.7.2. The following parameter was added to Section B.7.1: FE (flare efficiency) Project emissions and emission reduction will be determined considering the mass flow rate of methane destined to the flares. Data used for ex ante estimation of baseline and project emissions do not need to be monitored.	<b><u>Answer 02.01.2008:</u></b> The parameter biogas pressure was included. The fraction of time in which the gas is combusted is determined via the temperature of the exhaust gas. It should be still included the following parameters in B.7.1. of the PDD: - "amount of methane flared "



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			<p>in B.7.1. (parameters to be monitored)</p> <ul style="list-style-type: none"> <li>- Density of methane</li> <li>- GWP methane</li> </ul> <p>-all parameters related with the determination of project emissions</p> <p><b><u>Answer 04.02.2008:</u></b></p> <p>All parameters related with the determination of project emissions have to be still included in B.7.1. of the PDD.</p> <p><b><u>Answer 08.02.2008:</u></b></p> <p>Answer may be accepted.</p> <p>CAR 27 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 28:</u></b></p> <p>Regarding the parameter biogas flow: The applied value, measurement method ("The frequency of the calibrations and control procedures would be different for each application" is not clear) and QA/QC procedures should be revised. A reference to standards and accuracy should be indicated.</p>	<p>B.7.1.9. (Parameter 1)</p>	<p>The biogas flow will be measured continuously by flow meter, as determined in section B.7.1. The applied value for ex ante calculation was estimated based on EMBRAPA default values, as described in section B.6.1</p> <p>Answer 23.01: Corrected as requested.</p>	<p><b><u>Answer 02.01.2008:</u></b></p> <p>The description of parameter <math>TM_{RGh}</math> in B.7.1. is not correct: Instead of "Mass flow rate of methane in the residual gas sent to flare" it is the "amount of biogas produced and sent to the flare" which has to be monitored.</p> <p><b><u>Answer 04.02.2008:</u></b></p> <p>Correction has been provided in the last submitted PDD.</p> <p>CAR 28 is considered to be</p>



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			resolved. <input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request 29:</u></b></p> <p>Regarding the parameter “biogas temperature”: measurement method should be revised. A reference to standards, accuracy and QA/QC procedures should be indicated.</p>	<p>B.7.1.9. (Parameter 2)</p>	<p>The monitoring procedures for this parameter were defined in section B.7.1.</p> <p>Answer 23.01: Additional information on how this parameter is monitored was added to the PDD.</p> <p>Answer 06.02: Information on equipment accuracy was added to Section B.7.1.</p>	<p><b><u>Answer 02.01.2008:</u></b></p> <p>Project participants are still requested to inform about accuracy, calibration requirements and reference to standards in more detail</p> <p><b><u>Answer 04.02.2008:</u></b></p> <p>The indication of accuracy is missing in the PDD. Please add and submit the respective evidence.</p> <p><b><u>Answer 08.02.2008:</u></b></p> <p>Accuracy has been indicated in the last submitted PDD and the respective evidence is attached as annex in the PDD.</p> <p>CAR 29 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 30:</u></b></p> <p>Regarding the parameter “fraction of CH<sub>4</sub>”: measurement method and QA/QC procedures should be revised. A reference to standards and accuracy should be indicated.</p>	<p>B.7.1.9. (Parameter 4)</p>	<p>The monitoring procedures for this parameter were defined in section B.7.1.</p> <p>Answer 23.01: Additional information on how this parameter is monitored were added to the PDD.</p>	<p><b><u>Answer 02.01.2008:</u></b></p> <p>Project participants are still requested to inform about accuracy, calibration requirements and reference to standards in more detail.</p> <p><b><u>Answer 04.02.2008:</u></b></p> <p>Requested information has been included into the last submitted PDD.</p>

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			CAR 30 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 31:</u></b> Regarding the parameter “flare efficiency”: Data unit, description, source, measurement method, QA/QC procedures should be revised. A reference to standards and accuracy should be indicated.	B.7.1.9. (Parameter 5)	The monitoring procedures for this parameter were defined in section B.7.1 and B.7.2. Answer 23.01: Corrected as requested.	<b><u>Answer 02.01.2008:</u></b> Option 12 (a) of AMS III-D has been chosen for the determination of the flare efficiency. This implies monitoring of temperature of the exhaust gas and biogas flow rate. Both parameters are included in B.7.1. of the PDD. However, see CAR 28. <b><u>Answer 04.02.2008:</u></b> CAR 31 may be considered to be resolved as CAR 28 is also resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 32:</u></b> Regarding the parameter “Soil application”: QA/QC procedures have to be explained.	B.7.1.9. (Parameter 8)	The monitoring procedures for this parameter were defined in section B.7.1 and B.7.2 as sludge application.	<b><u>Answer 02.01.2008:</u></b> Monitoring procedures of the parameter “Soil application” have been properly explained in the last submitted PDD. CAR 32 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 33:</u></b> The operational and management structure as well as the responsibilities and arrangements for data collection and archiving have to be explained in the PDD.	B.7.2.1.	These items are described in Section B.7.2 and Annex IV of the PDD.	<b><u>Answer 02.01.2008:</u></b> The operational and management structure as well as the responsibilities and arrangements for data collection and archiving have been

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			explained in the last submitted PDD. CAR 33 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 34:</u></b> The methods for integration of the terms in equation “captured and destroyed methane” and “emission reductions” should be mentioned in the PDD (in B.7.2. of the Monitoring Plan).	B.7.2.3.	These items are described in Section B.7.2 and Annex IV of the PDD..	<b><u>Answer 02.01.2008:</u></b> B.7.2. explains that the PC terminals in every farm will store all data necessary to determine the amount of methane fuelled and flared in a given crediting year. These terminals will also store any additional data that is necessary to calculate emission reductions. CAR 34 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 35:</u></b> Methods and instruments used for metering, recording and processing of the data should be indicated in B.7.2.	B.7.2.4.	These items are described in Section B.7.2 and Annex IV of the PDD.	<b><u>Answer 02.01.2008:</u></b> Methods and instruments used for metering, recording and processing of the data have been included in B.7.2. and Annex IV of the PDD. CAR 35 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Requests 36:</u></b> The proper application of the final sludge should be included in the monitoring plan	B.7.2.5.	The monitoring of this item was added to the monitoring plan, as described in Sections B.7.1 and B.7.2	<b><u>Answer 02.01.2008:</u></b> The item “proper application of the final sludge” has been

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(B.7.2) of the PDD.			included in B.7.1. and B.7.2. of the last submitted PDD. CAR 36 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Requests 37:</u></b> The PDD should mention that on-site inspections for each verification period for each individual farm are required.	B.7.2.6.	This item is described in Section B.7.2 of the PDD.	<b><u>Answer 02.01.2008:</u></b> The information that on-site inspections for each verification period will be realized by AMAZON has been included in the last submitted PDD. CAR 37 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 38:</u></b> The electronic chart which is mentioned in Annex 4 of the PDD should be updated and submitted to the validation team.	B.7.2.9.	The electronic chart was provided to the TUV auditor during the on site visits. The PDD no longer mentions the electronic chart, as most monitored parameters will be automatically recorded.	<b><u>Answer 02.01.2008:</u></b> Answer may be accepted. CAR 38 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 39:</u></b> The PDD should inform (in B.8.) that Amazon Carbon S/S Ltda. is project participant of the project activity.	B.8.1.5.	In section B.8 of the PDD it is indicated that Amazon Carbon S/S Ltda is a project participant.	<b><u>Answer 02.01.2008:</u></b> B.8. of the last submitted PDD indicates that Amazon is project participant. CAR 39 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 40:</u></b> The PDD should inform that there are no transboundary environmental impacts related with the project activity.	D.1.4.	In section D.1 of the PDD it is defined that no transboundary environmental impacts are expected.	<b><u>Answer 02.01.2008:</u></b> The last submitted PDD informs that no transboundary environmental impacts occur. CAR 40 is considered to be resolved. <input checked="" type="checkbox"/>

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<p><b><u>Corrective Action Request 41:</u></b> The PDD should inform in E.1. who are the consulted stakeholders.</p>	<p>E.1.1.</p>	<p>A list of stakeholders was added to section E.1 of the PDD. Answer 23.01: The date invitations to stake holders was sent is now determined in the PDD.</p>	<p><b><u>Answer 02.01.2008:</u></b> Stakeholders have been added in the last submitted PDD. However, it is not clear when the invitations were sent to them. PPs are re-requested to inform the exact date of sending the invitation letters to the stakeholders. <b><u>Answer 04.02.2008:</u></b> Requested information has been included into the last submitted PDD. CAR 41 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 42:</u></b> The PDD should inform in E.1. which media have been used to invite stakeholders.</p>	<p>E.1.2.</p>	<p>Details on the media used to invite stakeholders was determined in section E.1 of the PDD. Answer 23.01: Added as requested.</p>	<p><b><u>Answer 02.01.2008:</u></b> Please still add in E.1. of the PDD that invitations to stakeholders were sent by postal. <b><u>Answer 04.02.2008:</u></b> Information, that invitations to stakeholders were sent by postal has been included in the last submitted PDD. CAR 42 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 43:</u></b> The PDD should inform whether negative comments have been received.</p>	<p>E.2.1.</p>	<p>No negative comments were received, as defined is section E.2 of the PDD.</p>	<p><b><u>Answer 02.01.2008:</u></b> No negative comments were received. Information included in the last submitted</p>

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			PDD. CAR 43 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 44:</u></b> It should be mentioned in E.3. that also written comments have been received and they had only positive character.	E.3.1.	This is defined in section E.2 of the PDD	<b><u>Answer 02.01.2008:</u></b> Information included in E.2. of the last submitted PDD. CAR 44 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 45:</u></b> Information about temperature and methane density should be consistent throughout the whole PDD.	F.3.1.	Consistency of this parameter was checked and corrected throughout the whole PDD.	<b><u>Answer 02.01.2008:</u></b> Information about temperature and methane density is consistent in the last submitted PDD. CAR 45 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 46:</u></b> The validation team has received shortly after the on-site visit new baseline data (in excel baseline calculation sheets "Plantel Cotriba" and "Reducoes atuais english"). The population numbers are different for all four farms, some TIER 2 parameters were changed. Please update the baseline information in Annex 3 of the PDD.	F.3.2.	Annex 3 of the PDD was changed. Historical data of COTRIBÁ livestock was added.	<b><u>Answer 02.01.2008:</u></b> Baseline information was updated in Annex 3 of the last submitted PDD and was verified by the validation team for correctness. CAR 46 is considered to be resolved. <input checked="" type="checkbox"/>
<b><u>Corrective Action Request 47 (02.01.2008):</u></b> Date of completion in B.8. of the PDD (version 2) is not possible. Please correct.		Answer 23.01: Corrected as requested. Answer 06.02: Corrected as requested.	<b><u>Answer 04.02.2008:</u></b> Date of completion is not possible. The date of completion in B.8. has to be prior to the date of the version of the

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			<p>PDD or at least to be the same date. Please correct.</p> <p><b><u>Answer 08.02.2008:</u></b> The date of completion has been revised. CAR 47 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 48 (02.01.2008):</u></b> A bibliography with all used references in the PDD (including indication of chapter, page etc.) should be indicated at the end of the PDD.</p>		<p>Answer 23.01: Added as requested. Answer 06.02: The information was added as requested.</p>	<p><b><u>Answer 04.02.2008:</u></b> The version of “Methodological Tool to determine project emissions from flaring gases containing methane” should be indicated in the bibliography as well as the dates and the exact authors of the “First Brazilian Inventory” and “Technological Inventory of EMBRAPA”.</p> <p><b><u>Answer 08.02.2008:</u></b> Requested information has been provided in the last submitted PDD. CAR 48 is considered to be resolved. <input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request 49 (04.02.2008):</u></b> The version of the PDD has not been upgraded with the last modifications. Project</p>		<p>Answer 06.02: The version of the PDD was changed, as requested.</p>	<p><b><u>Answer 08.02.2008:</u></b> Version of the PDD has been updated.</p>

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graded with the last modifications. Project participants are requested to change the version of the PDD when significant modifications occur.			CAR 49 is considered to be resolved. <input checked="" type="checkbox"/>
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**Table 3    Unresolved Corrective Action and Clarification Requests (in case of denials)**


Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-





## **Annex 2: Information Reference List**



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Referenc e No.	Document or Type of Information
4	Environmental licenses, all issued by FEPAM: -Varzea Lo N° 6144/2005-DL, issued on December 20, 2005, valid for 4 years -Volta Gaucho Lo N° 6138/2005-DL, issued on December 20, 2005, valid for 2 years Protocol for request of environmental license, issued by FEPAM: -Quinze de Novembro and Reno Bohrz, process N° 020239-0567/07-7, entry date: 19/06/2007
5	Land registers of the farm sites and leasing contract, paper-copies, presented on November 13, 2007.
6	Declaration of the project participants (Amazon S/S Ltda. And Cotriba) about the voluntary participation in the project activity, paper copy, submitted on November 13, 2007.
7	Time schedule (chronogramme) for the implementation of the project activity, excel-file, submitted on November 13, 2007.
8	First Brazilian inventory of greenhouse gas emissions (Primeiro Inventario Brasileiro de emissoes antropicas de gases de efeito estufa), Science and Technology ministry, 2006, paper-copy, presented on November 13, 2007.
9	Declaration issued by AVESUY about the project's starting date (14.11.2007 at Volta Gaucha), paper-copy, submitted on November 13, 2007.
10	15 Invitations to stakeholders, paper-copy, submitted on November 13, 2007.
11	Records of number of heads of the four farms, paper-copies, submitted on November 13/14, 2007.
12	On-site questionnaires for the four farms, filled out during the on-site audit, 13/14.11.2007
13	Technical plans about the biodigesters, paper-copies, submitted on November 14, 2007.
14	Evidence that farm Reno Bohrz is member of the cooperative Cotriba, paper-copy, submitted on November 14, 2007.
15	Methodology AMS III-D: methane recovery in agricultural and agro industrial activities, version 13.
16	IPCC: Revised 2006 Guidelines for National Greenhouse Gas Inventories
17	IPCC: 2000, Good Practice Guidance

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Referenc e No.	Document or Type of Information
18	Baseline calculation excel-sheets “Plantel Cotriba” and “Reducoes atuais english”, excel-files, submitted on November 22, 2007.
19	Measurement of GPS coordinates during the on-site audit, 13/14.11.2007.
20	Attachment A to Appendix B of the simplified modalities and procedures for small-scal CDM project activities.
21	Validation and Verification Manual, IETA/World Bank (PCF), <a href="http://www.vvmanual.info">http://www.vvmanual.info</a>
22	Contract between Avesuy and Amazon about the construction of biodigesters, from 12/11/2007, jpg-files, submitted on December 07, 2007.
23	Assessment of the equipment parts (AVESUY), jpg-files, submitted on December 07, 2007.
24	Declaration issued by AVESUY (07.01.2008) confirming the use of enclosed flares in the project activity.
25	Revised calculation sheets “Emission reductions 1-4”, excel-files, submitted on February 11, 2008
26	Final Project Design Document “COTRIBÁ Swine Waste Management System Project “, word and pdf-file, version 04, 07.02.2008, submitted on February 08, 2008.
27	Technical specifications, Pressure Transmitter LD301, pdf-file, submitted on January 23, 2008.
28	Technical specifications, Roots Meter, pdf-file, submitted on January 23, 2008.
29	National Standards, INMETRO, N° 114 from 16.10.1997, pdf-file, submitted on January 23, 2008.
30	International Recommendation, OIML R 32, 1989, International Organization of legal metrology, pdf-file, submitted on January 23, 2008.
31	Declaration of Avesuy about training, 07.01.2008, jpg-file, submitted on January 16, 2008.
32	First Brazilian Inventory of anthropogenic greenhouse gas emissions, Background reports, EMBRAPA, MST, 2002, pdf-file, submitted on February 11, 2008
33	EMBRAPA Solids Separator1, pdf-file, submitted on February 11, 2008
34	EMBRAPA Anaerobic lagoon1, pdf-file, submitted on February 11, 2008.
35	EMBRAPA Anaerobic digester1, pdf-file, submitted on February 11, 2008.

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Referenc e No.	Document or Type of Information
36	Technician criteria for ambient licensing of new enterprises destined to the swine culture, pdf-file, submitted on February 11, 2008.