Validation Report

AgCert International Limited, Ireland

Validation of the AWMS GHG Mitigation Project BR05-B-01 Minas Gerais Brazil

Report No. 515515, Revision 02

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Summary:

The Certification Body "Climate and Energy" has been ordered by AgCert International LLC to perform a validation of the above mentioned project.

Using a risk based approach, the validation of this project has been performed by document reviews and on-site inspection, audits at the locations of the project and interviews at the offices of the project developer and the project owner.

As the result of this procedure, it can be confirmed that the submitted project documentation is in line with all requirements set by the Kyoto Protocol, the Marrakech Accords and relevant guidance by the CDM Executive Board.

Prior to the submission of this validation report to the CDM Executive Board, TÜV SÜD will have to receive the written approval of the DNA of involved parties, including confirmation by the DNA of Brazil that the project assists in achieving sustainable development.

Additionally the assessment team reviewed the estimation of the projected emission reductions. We can confirm that the indicated amount of emission reductions of 557.711 tonnes CO_{2e} over a crediting period of ten years, resulting in a calculated annual average of 55.771 tonnes CO_2 represents a reasonable estimation using the assumptions given by the project documents.

Work carried out by:	• Klaus Nürnberger (Lead auditor Energy Certification, Technical expert, GHG auditor) • Michael Rumberg (Project manager, GHG lead auditor, Auditor Environmental Management Systems (ISO 14001)) • Odair Roveri (GHG auditor, Local expert)	Internal Quality Control by: Werner Betzenbichler

Abbreviations

AE	Applicant Operational Entity
AWMS	Animal Waste Management Systems
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
DOE	Designated Operational Entity
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission reduction
GHG	Greenhouse gas(es)
KP	Kyoto Protocol
MP	Monitoring Plan
PDD	Project Design Document
TÜV SÜD	TÜV Industrie Service GmbH TÜV SÜD Group
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

AgCert International LLC has commissioned TÜV Industrie Service GmbH TÜV SÜD Group (TÜV SÜD) to validate the AWMS GHG Mitigation Project BR05-B-01, Minas Gerais, Brazil. The validation serves as a design verification and is a requirement of all CDM projects. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities as agreed in the Bonn Agreement and the Marrakech Accords.

1.2 Scope

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. TÜV SÜD has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The validation is based on the information made available to TÜV SÜD and the engagement conditions detailed in this report. TÜV SÜD can not guarantee the accuracy or correctness of this information. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on this report.

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.

The audit team has been provided with a draft PDD in January 2005. 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 guidance given by the approved methodology and the CARs and CRs indicated in the audit process. This PDD version submitted in May 2005 was published from May 30 until to June 28, 2005. Afterwards the PDD was revised once more, now with slightly renewed population data. This version which has also undergone a renewed document review, serves as the basis for the final assessment presented herewith.

Studying the existing documentation belonging to this project, it was obvious that the competence and capability of the validation team has to cover at least the following aspects:

- Ø Knowledge of Kyoto Protocol and the Marrakech Accords
- Ø Environmental and Social Impact Assessment
- Ø Skills in environmental auditing (ISO 14000, EMAS)
- Ø Quality assurance
- Ø Agricultural operations especially regarding manure management
- Ø Technical aspects of gas flaring and biodigester operation
- Ø Monitoring concepts
- Ø Political, economical and technical random conditions in host country

According to these requirements TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV certification body “climate and energy”:

Klaus Nürnberger is head of the division energy certification at TÜV Industrie Service GmbH TÜV SÜD Group. In his position he is responsible for the implementation of verification and certifications processes for electricity production based on renewable sources. The division has assessed more than 600 plants and sites all over Europe. He has received extensive training in the CDM and JI validation processes and participated already in several CDM and JI project assessments.

Michael Rumberg is head of the division CDM/JI at TÜV Industrie Service GmbH TÜV SÜD Group. In his position he is responsible for the implementation of validation, verification and certifications processes for greenhouse gas mitigation projects in the context of the Kyoto Protocol. Before entering this company he worked as an expert for renewable energy, forestry, environmental issues, climate change and sustainability within the environmental branch of an insurance company. His competences are covering risk assessments, quality and environmental auditing (EMS auditor), baseline setting, monitoring and verification due to the requirements of the Kyoto Protocol.

Odair Roveri is a consultant for quality and environmental management systems (according to ISO 9001 and ISO 14001) at Ingwaass Qualidade Continua. He is based in Sao Paulo. In his position he is responsible for the implementation of management systems. He has received extensive training in the CDM validation process and participated already in several CDM project assessments.

The audit team covers the above mentioned requirements as follows:

- Ø Knowledge of Kyoto Protocol and the Marrakech Accords (NÜRNBERGER/RUMBERG/ROVERI)
- Ø Environmental and Social Impact Assessment (NÜRNBERGER /RUMBERG/ROVERI)
- Ø Skills in environmental auditing (ISO 14000, EMAS) (ALL)
- Ø Quality assurance (RUMBERG / ROVERI)
- Ø Agricultural operations especially regarding manure management (RUMBERG/ NÜRNBERGER)
- Ø Technical aspects of gas flaring and biodigester operation (RUMBERG/ NÜRNBERGER)
- Ø Monitoring concepts (RUMBERG/ NÜRNBERGER)
- Ø Political, economical and technical random conditions in host country (ROVERI)

In order to have an internal quality control of the project, a team of the following persons has been composed by the certification body “climate and energy”:

Ø Werner Betzenbichler (Head of certification body “Climate and Energy”)

1.3 GHG Project Description

This AWMS GHG Mitigation Project BR05-B-01, Minas Gerais (BR05-B-01, Minas Gerais) consists of 8 farms situated in Southeast Brazil in the State of Minas Gerais. The farms are in operation for several years and combines pork production mostly with coffee production. The operation of the farm conforms with industrialised pork production practices. Currently the farms use a multi open lagoon system. The objective of the BR05-B-01, Minas Gerais Project is to apply to the farm GHG mitigation measures which will mitigate GHG emissions in an economically sustainable manner. The project foresees to replace the open air lagoons by positive pressure covered lagoon cells, creating ambient temperature anaerobic digesters. The project will also result in other environmental benefits, such as improved water quality and reduced odour.

The proposed BR05-B-01, Minas Gerais is located in Minas Gerais, Brazil. The farms are located in rural areas nearby the towns Uberlandia, Patos de Minas or Lagoa da Prata.

The only project participant yet is AgCert Do Brasil Solucuoes Ambientas Ltda., Brazil. AgCert International Limited, Ireland is the project developer of this project.

The project starting date is June 6, 2004. The 10 year non renewable crediting period starts September 1, 2004 and has been brought forward in relation to the PDD version of May 2005.

2 METHODOLOGY

The validation of the project consists of the following three phases:

- Desk review
- Follow-up interviews
- Resolution of clarification and corrective action requests

In order to ensure transparency, a validation protocol was customised for the project, according to the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), means of verification 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 Figure 1.

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

Validation Protocol Table 1: Mandatory Requirements			
Requirement	***Reference***	***Conclusion***	***Cross reference***
The requirements the project must meet.	*Gives reference to the legislation or agreement where the requirement is found.*	*This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** of risk or non-compliance with stated requirements. The corrective action requests are numbered and presented to the client in the Validation report.*	*Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent Validation process.*

Validation Protocol Table 2: Requirement checklist				
Checklist Question	***Reference***	***Means of verification (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organised in seven different sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	*Gives reference to documents where the answer to the checklist question or item is found.*	*Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.*	*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.*	*This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below). **Clarification** is used when the validation team has identified a need for further clarification.*

Validation Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action requests	***Ref. to checklist question in table 2***	***Summary of project owner response***	***Validation conclusion***
If the conclusions from the draft Validation are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	*Reference to the checklist question number in Table 2 where the Corrective Action Request or Clarification Request is explained.*	*The responses given by the Client or other project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".*

Figure 1 Validation Protocol Tables

2.1 Review of Documents

The project design document submitted by the client and additional background documents related to the project design and baseline were reviewed. The project design document underwent several revisions addressing changes to the baseline and monitoring methodology requested by the CDM Executive Board and clarification requests issued by TÜV SÜD. The audit team has been provided with a draft PDD in January 2005. The final PDD version submitted in May 2005 serves as the basis for the assessment presented herewith.

2.2 Follow-up Interviews

In the periods of October 13, 2004 and April 18 -19, 2005, TÜV SÜD performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of the farms and AgCert Do Brasil Solucuoes Ambientas Ltda. were interviewed. The main topics of the interviews are summarised in Table 1.

Table 1 Interview topics

Interviewed organisation	Interview topics
Representatives of the farms	Ø Project design Ø Technical equipment Ø Sustainable development issues Ø Additionality Ø Crediting period Ø Monitoring plan Ø Management system Ø Environmental impacts Ø Stakeholder process
AgCert Do Brasil Solucuoes Ambientas Ltda	Ø Project design Ø Technical equipment Ø Sustainable development issues Ø Baseline determination Ø Additionality Ø Crediting period Ø Monitoring plan Ø Environmental impacts Ø Stakeholder process Ø Approval by the host country

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation was to resolve the requests for corrective actions and clarification 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 communications between the Client and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that will be given are summarised in chapter 3 below and documented in more detail in the validation protocol in Appendix A.

3 VALIDATION FINDINGS

In the following sections the findings of the validation are stated. The validation findings for each validation subject are presented as follows:

1) The findings from the desk review of the project design documents and the findings from interviews during the follow up visit are summarised. A more detailed record of these findings can be found in the Validation Protocol in Appendix A.
2) Where TÜV SÜD had identified issues that needed clarification or that represented a risk to the fulfilment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the project resulted in one outstanding issue, one Corrective Action Requests and some Clarification Requests.
3) Where Clarification or Corrective Action Requests have been issued, the exchanges between the Client and TÜV SÜD to resolve these Clarification or Corrective Action Requests is summarised.
4) The final conclusions for validation subject are presented.

The validation findings relate to the project design as documented and described in the final project design documentation from May 24, 2005.

3.1 Project Design

3.1.1 Discussion

The current project participant is AgCert Do Brasil Solucuoes Ambientas Ltda., Brazil. Brazil as the host contry meet all relevant participation requirements. But the project has not been approved by the national DNAs yet and no Letter of Authorization has been issued.

The objective of the Project ”BR05-B-01, Minas Gerais” is to apply to the farm GHG mitigation measures which will mitigate GHG emissions in an economically sustainable manner. The project foresees to replace the open air lagoons by positive pressure covered lagoon cells, creating ambient temperature anaerobic digesters.

The project design does reflect current good practice. The design has been professionally developed. The validation of the compatibility of the single components at currently realized installations carried out by the project developer resulted in a positive conclusion. The project does moreover apply state of the art equipment.

The project boundaries are clearly defined. The project bundles 8 installations of digesters at several sites in the state of Minas Gerais. During this assessment TÜV SÜD visited/contacted all farms indicated by the PDD. As the project participant is operating/developing several similar CDM projects in the same or neighbouring region, the validation process has shown that no farm of this project is included in any other existing (draft) PDD.

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.

Initial training and maintenance efforts are required. In the PDD and during the visit on site the project developer confirmed that such a training has taken place and/or is envisaged. Documentation on executed and/or planned training activities has been submitted.

The project is currently in line with the relevant legislation and plans in the host country. The required operation and/or environmental licences are valid and has been submitted to the validation team. The expired environmental licence for Fazenda Quilombo is applied for prolonging.

It is not clear whether Brazil requires any specific CDM requirements to be fulfilled. But the project is considered to be in line with the sustainable development policies of Brazil as improvements to manure management as well as energy supply are relevant issues in the national Brazilian policy. The question can finally be answered after the issuance of the Letter of Approval by the Brazilian DNA.

It can be expected that the project will create additional environmental benefits by reducing emissions of Volatile Organics Compounds (VOCs). The project does moreover improve the quality of the fertilizer produced as a by-product to the farming activities.

The funding for the project does not lead to a diversion of official development assistance, as according to the information obtained by the audit team, ODA does not contribute to the financing of the project.

The project starting date and the operational lifetime are clearly defined. The crediting period is clearly defined.

3.1.2 Findings

Outstanding issue:

The project has not obtained a Letter of Approval/ Letter of Authorization from the Investor Contry and Brazilian government so far. No documentation has been submitted to the validation team. The issuance of these documents will also demonstrate whether the project is in line with sustainable development policies of the host country

Response:

The response will be given by the issuance of the Letter of Approval. This has not happened so far as the approval of the project depends on the review of the validation report which has to be submitted in advance.

Clarification Request No. 1:

The two basins of Fazenda Quilombo with a retention time of only 4 days and the fourth lagoon of Fazenda Cinco Estrelas are not described.

Response:

Per the site operator of Fazenda Quilombo, prior to the installation of the AgCert digester manure was handled as follows:
On a periodic basis, liquid was being skimmed off the surface of the basin and used for irrigation; this occurred more frequently in hot weather when crops were growing. Solids, on the other hand, were removed approximately every six month.
Hence according to AgCerts science department the GHG production activity in the basins replicated that which could be expected to be found in an anaerobic lagoon system

Clarification Request No. 2:

The owner of the individual Fazendas are not mentioned in the PDD. Therefore it is not always evident to assign the provided producer contracts to the individual farm sites. The owner of the individual farm sites should be indicated in the PDD.

Response:

A revised PDD (September 2005) was provided, which includes the owner of the farm sites.

Clarification Request No. 3:

A validation of the compatibility of the single components could not be evidenced during the visit on site. Documentation demonstrating such compatibility (check list after finishing construction and in the beginning commission phase) should be submitted to the assessment team.

Response:

Component user manuals and “Post-Construction Assessment” were submitted to the audit-team.

Clarification Request No. 4:

A more detailed description of the design and technical characteristics of the applied equipment should be submitted to validation team.

Response:

Component user manuals has been submitted to the audit-team

Clarification Request No. 5:

The respective documentation (signed participation list and/or date of the scheduled trainings) of all farms should be submitted to the validation team.

Response:

The training schedule and outline has been submitted to the audit-team. Attendance rosters will be posted as they become available.

Clarification Request No. 6:

The license of Fazenda Quilombo was valid only until 8-May-2005. Therefore the license must be renewed. The environmental licenses or the application for licenses should be submitted to the validation team.

Response:

The procedure prolonging the license of Fazenda Quilombo has been initiated. A meeting with the regarding authority has taken place and is documented by minutes.

3.1.3 Conclusion

The project is an unilateral CDM-project. AgCert do Brazil is mentioned as project participant.

The owner of the individual Fazendas are mentioned in the PDD. Therefore it is always evident to assign the provided producer contracts to the individual farm sites.

It could be accepted that the handling prior to the installations of the AgCert digester is regarding GHG emissions similar to anaerobic lagoons.

The check list “Project Activity Site Configurator” can be considered as a validation that the whole installation works in a manner like designed. It is shown that the training of personnel take place.

The procedure prolonging the license of Fazenda Quilombo has been initiated. The size and the operation of the farm itself have not changed. There are no indications yet that the license could be refused.

The clarification requests have not been resolved completely and the project does not comply with the requirements. The outstanding issues has to be answered before the project can be submitted for registration.

3.2 Baseline and Additionality

3.2.1 Discussion

The project is based on the approved methodology: AM0016 “Greenhouse gas mitigation from improved Animal Waste Management Systems in confined animal feeding operations”. The methodology has been approved by the CDM Executive Board at its 16th meeting in October 2004. The selected methodology has been designed for this project-type and hence the project is part of the methodology on which it is build upon. Therefore the respective baseline methodology is deemed to be the most applicable one for this project. The PDD responds convincingly to each of the applicability criteria which are outlined in the baseline methodology.

The application of the methodology and the discussion and determination of the baseline are transparent. The application follows exactly each of the steps outlined in the methodology and answers the corresponding sections in a proper manner.

The baseline is been determined using reliable assumptions. The parameter “population” as one of the decisive parameters for the quantitative prognosis is determined by using reliable data and is moreover based on date obtained from a three year period in the past. During the visit on site the availability of such comprehensive data could be observed predominantly. Hence plausible data has been provided from traceable sources ensuring the reliability of the parameter. As the parameter is moreover monitored ex-post and compared with the metered data for biogas flow the correct amount of emissions reductions will be determined in the verification process.

The baseline has been based on project specific data and does sufficiently take into account policies and developments regarding legal, econimic and social issues. There is no legal requirement to capture and combust greenhouse gases produced by swine manure in AWMS. There is currently also no planned legislation that is directed towards the emission of GHG as related to AWMS. The open air lagoon is hence considered the common AWMS practice in Brazil.

Concluding it can be stated that it has been made plausible that the chosen baseline scenario is the one deemed most realistic under the given frame conditions.

The project demonstrates via an economic analysis and the description of barriers that it is not the baseline scenario. Each step of the respective section of the methodology has hereby been applied in a correct manner. The elaborations in the PDD got substantiated by an external expert review. Concluding it has been made clear that the continuation of the AWMS by operating open air lagoons would be the most attractive course of action and hence the

baseline scenario. During the visit on site the project owner substantiated these arguments by describing the financial result of the operations in the last two years.

The PDD does moreover elaborate on the starting date of the project activity and hereby successfully responds to the requirements defined in “step 0” of the “tool for the demonstration and assessment of additionality” approved by the EB (EB 16, annex 1). During the validation process the audit team obtained the information and evidenced that the start of project activities has been before the registration date of the first clean development mechanism project.

The economic performance, the legal constraints and the common practice have been identified as potential risks to the baseline. The subsequent evaluation resulted in the assessment that no major risks to the baseline exist. This assessment is considered as being plausible.

References have been made to all data sources used.

3.2.2 Findings

Clarification Action Request No. 1:

The project has been partially implemented although registration of the project as a CDM activity has not taken place. Please describe in chapter B2 (i.e. as step 0) and based on defined dates how the CDM has been taken into account from the beginning of the project.

Response:

Additionality is demonstrated and explained in chapter B.3. Further, the background statement contained in Step 5 of Chapter B.3 explains how CDM has been taken into account from the beginning.
To further clarify this action request, CDM functional area responsibility diagrams have been provided to the validation team.
Applicable contracts have been posted to the validation team. The contracts between the farmers and AgCert show that CDM has taken into account from the beginning of the project.

Clarification Request No. 7:

The mentioned figures in the PDD are in some cases different to the data of the farm sites. The parameter “population” is in the PDD presumably determined by only obtaining data from one year in the past. Hence the conservativeness of the data can not be checked. The data should be corrected and further data should be added to improve the reliability of the number. The population data (i.e. analise de inventario, plots of PigCHAMP) of all farms of the last three years should be submitted to the audit team.

Response:

Three (3) years of data for each site have been provided and were submitted to the validation team. The indicated figures in the revised PDD Annex 3 from September 2005 are now consistent with delivered population data for each site.

Clarification Request No. 8:

The crediting period is foreseen to start on January 1, 2005 but is mentioned as January 1, 2004. The beginning of the crediting period should be adjusted.

Response:

The crediting period has been changed in the PDD to reflect the accurate starting dates.

3.2.3 Conclusion

The contracts between the farmers and AgCert show that CDM has taken into account from the beginning of the project.

The population data were completely delivered (2002, 2003, 2004, first months of 2005). The conservativeness of the data was checked. The population data are consistent with data in the PDD.

The starting date is now correct mentioned in the PDD and could be accepted as reasonable. The above discussed issues are considered to be resolved.

3.3 Monitoring Plan

3.3.1 Discussion

The project is based on an approved monitoring methodology. The methodology has been approved by the CDM Executive Board at its 16th meeting in October 2004.

The selected methodology has been designed for this project type and hence the project is part of the methodology it is build upon. Therefore the respective monitoring methodology is deemed to be the most applicable one for this project. The PDD responds convincingly to each of the applicability criteria which are outlined in the monitoring methodology.

Details of the methodology as parameters to be obtained, recording frequency and archiving methods are considered being reasonable and appropriate.

The methodology and its application is described in detail and in a transparent manner. It is made clear that option “a) determination of GHG emissions using IPCC default parameters” has been chosen. During the visit on site the implementation of the operations and maintenance manual and the data management system in order to ensure a proper implementation of the monitoring plan could be evidenced.

The monitoring plan does include all relevant parameters to determine baseline and project emissions and it is possible to monitor and/or measure the currently specified GHG indicators. The indicators which are not measured can be obtained from IPCC documents. The parameters defined allow to calculate the baseline and project emissions in a proper manner.

The monitoring plan does include all relevant parameters to determine leakage emissions. In general, leakage emissions in the proposed project activity type depend on practice changes imposed and do not apply to all projects carried out under the respective methodology. In the project assessed herewith leakage emissions are expected not to occur. In order to ensure a conservative approach respective parameters (electrical power use) are nevertheless included in the monitoring plan. Other potential leakage effects have been evaluated and it has been demonstrated that these effects do not apply to this specific project.

The project is considered to have no negative environmental, social and economic effects and a monitoring of such data is also not required by the applied monitoring methodology. This approach is deemed sufficient.

The PDD in combination with the Operations and Maintenance Manual does clearly indicate the authority and responsibilities within the given project structure. During the visit on site it has been described in detail how the respective organisational structure is already implemented

and/ or planned. During the visit on site the validation team moreover realised that the project owner is well aware of the tasks and responsibilities.

The overall management responsibility is with AgCert International Limited, Ireland. The company operates also trained staff in Brazil. The farm owner or representatives supports the AgCert staff during the on site audits and carries out the daily supervision of the project components and their performance. The responsibilities for each task are clearly defined and allocated to the Farm owners, AgCert and the service providers.

The quality and environmental management system (QMS and EMS), currently under implementation within AgCert, will help to support the project participants in operating the respective organisational structure.

3.3.2 Findings

Clarification Request No. 9:

The QA/QC measures defined in chapter D.3 should correspond to the approach in the methodology applied. The procedures should be submitted to audit team and if documents are relevant it should be ensured that the farmer has a copy and is aware of the corresponding instructions.

Response:

During the review by the CDM Executive Board, AM0016 was revised (by the CDM EB). Version 2 was issued as AgCert International Limited, Ireland, continued to work to Revision 1. PDD and O&M Plan have been revised and posted to the validation team.

Clarification Request No. 10:

The currently valid operation and maintenance guidelines and instructions currently developed to operate the project should be submitted as soon as possible.
The responsibilities for all project participants are not clearly described in the PDD.
The quality and environmental management system (QMS and EMS) currently under implementation within AgCert will help to support the project participants in operating the respective organizational structure. In the PDD it is made reference to this system at various chapters.

Response:

Current O&M Plan and current QEMS have been posted to the validation team.

Clarification Request No.11:

As most of the variable data is obtained directly at the site of the project owner, it should be made clear, how the QMS and EMS system do help to direct the owner and ensure proper data handling before the data enters the data management system of AgCert.

The certification of the currently implemented management system through an independent auditor demonstrates the correct implementation of the system.

Response:

The processes for “Collecting” and “Handling” of data is described in the O&M Plan posted to validation team. Current QEMS has been posted to the validation team.

Clarification Request No. 12:

After having obtained the AgCert ISO 9001 certificate, it should be submitted to the validation team.

Response:

Upon satisfactory completion of AgCert's ISO 9001/14001 registration a copy of the issued certificate will be available on line.

Clarification Request No. 13:

The producer contracts signed by the owner of the farms should be submitted to the validation team.

Response:

Producer contracts have been posted to the validation team.

Clarification Request No. 14:

During the visit AgCert has described how the procedure in emergency cases (i.e. gas emissions by water seal) works. AgCert or main equipment provider has offices offering services close to the farm. The respective procedures should be described in the PDD or other documentation.

Response:

The procedures for Emergency Maintenance notification are described in 4.3.1 of the O&M Plan. "Alternative Operating Procedures" designed to prevent unintended emissions are found in 4.2.2.7, 4.2.3.6, 4.2.4.5, and 4.2.5.5 of the O&M Plan.

3.3.3 Conclusion

Current O&M Plan were delivered and describes operation and maintenance in appropriate manner. The O&M Plan for the operation personnel is translated in Portuguese language.

The responsibilities for all project personnel are clearly described in the in O&M Plan. The processes for "Collecting" and "Handling" of data is described in the O&M Plan. too. The procedures for Emergency Maintenance notification are sufficiently described in the O&M Plan.

The above discussed issues are considered to be resolved.

3.4 Calculation of GHG Emissions

3.4.1 Discussion

The project spatial boundaries are clearly described and limited to the farm site. An exact and correct description of the project boundaries is included in chapter B.4 of the PDD. The PDD hereby also reflects correctly that emissions from barn systems and barn flushing systems are not considered as these emissions are not affected by the proposed practice change.

The projects components are clearly defined in the PDD and described in figure B1 of the PDD. During the visit on site the given information has been confirmed.

Details of direct and indirect emissions are discussed in the PDD in an appropriate manner. All aspects are covered by the current approach. Methane (CH_4), nitrous oxide (N_2O) and carbon dioxide (CO_2) emissions have been considered.

The calculations resulting in the final numbers have been submitted. The formulae used are correctly applied.

Since most estimates are derived from accepted international sources, it seems reasonable to assume that they are accurate. In addition the uncertainty of parameters applied has been evaluated and is documented in Table E1-1 in section E of the PDD. The approach is deemed sufficient.

Leakage emissions from increased electrical power consumption have been identified as being theoretically a source of leakage. But in the project leakage emissions are expected not to occur. In order to ensure a conservative approach the respective parameters are nevertheless calculated resulting in a positive leakage effect. The emission factor is hereby derived from one of the options mentioned in the methodology, but is not specifically addressed to the project site. The positive leakage effect is in accordance with the methodology not taken into account.

Concluding it can be stated that the project emissions will be reduced compared to the baseline scenario by 557.711 tonnes CO_{2e} over a crediting period of ten years.

3.4.2 Findings

No negative leakage effects are expected out of the project activity. This is due to the project design and has been demonstrated by reliable calculations. The emission factor is hereby derived from one of the options mentioned in the methodology, but is not specifically addressed to the project site.

Clarification Request No. 15:

The calculations resulting in the final numbers have not been submitted. The respective numbers should be submitted.

Response:

Required calculations have been posted to the validation team.

Clarification Request No. 16:

The PDD should cover the uncertainties in a reasonable manner.

Response:

Uncertainty parameters are addressed in Table E1-2 of the PDD.

3.4.3 Conclusion

The calculation sheets were submitted. The calculations are correct. The used population data are the last available ones of the past year. The populations of two farms (Granja Ressaca and Fazenda Sao Bernardo) have gone up during the last three years. It is expected that the assumed level of population will be at comparable level in the future.
With bringing forward the crediting period to September 2004 the calculations are renewed, too.

The uncertainty parameters are addressed in the PDD; hence this issue is considered to be resolved..

3.5 Environmental Impacts

3.5.1 Discussion

The environmental impacts can be seen as being low. These low impacts have been sufficiently described in the PDD.

The legislation does not require an EIA for this type of project. But an environmental license for the site is necessary. This requirement for approval has been fulfilled.

Negative environmental effects are not expected to be created by the project. Given the nature of the project design this seems to be reasonable.

Transboundary effects are not expected as the project site is far from the national boundary.
As no significant environmental impacts are expected, such impacts have not influenced the project design.

3.5.2 Findings

None

3.5.3 Conclusion

The project does comply with the requirements.

3.6 Comments by Local Stakeholders

3.6.1 Discussion

A formal consultation process with local stakeholders has taken place and corresponding information has been submitted to the audit team. The stakeholders consulted included people from the local community and also the representatives of the local communities and the State of Minas Gerais. In addition neighbours to the site have been interviewed.

The stakeholders have been invited to a meetings via post and electronic mail and which has also been published in local and regional newspapers.

No stakeholder process is required according to national legislation.

The comments to the project design have been recorded and provided. As all comments have been positive, the project design has not been changed due to stakeholder comments.

3.6.2 Findings

Clarification Request No. 17:

The tape or the minutes including participation list from the meeting should be submitted to the validation team.

Response:

All relevant stakeholders meeting information has been posted to the validation team.

3.6.3 Conclusion

Invitations, letters and response of relevant stakeholders were submitted. The presentation of AgCert at the meeting was delivered. Participation lists were submitted. This issue is considered to be resolved.

The project does comply with the requirements.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on its website on May 30, 2005 and invited comments within 30 days, until June 28, 2005 by Parties, stakeholders and non-governmental organisations. No comments were received.

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the AWMS GHG Mitigation Project BR05-B-01, Minas Gerais in Brazil. The validation was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and subsequent decisions by the CDM Executive Board.

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 summary, it is TÜV SÜD´s opinion that the "AWMS GHG Mitigation Project BR05-B-01, Minas Gerais", as described in the revised project design document of September 2005, meets all relevant UNFCCC requirements for the CDM, set by the Kyoto Protocol, the Marrakech Accords and relevant guidance by the CDM Executive Board and that the project furthermore meets all relevant host country criteria and correctly applies the baseline and monitoring methodology AM0016.

Hence, TÜV SÜD will recommend the "AWMS GHG Mitigation Project BR05-B-01, Minas Gerais" for registration as CDM project activity by the CDM Executive Board.

Prior to the submission of this validation report to the CDM Executive Board, TÜV SÜD will have to receive the written approval of the DNA of involved parties, including confirmation by the DNA of Brazil that the project assists in achieving sustainable development.

By avoiding GHG emissions from open air lagoons, the project results in reductions of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change. An economic comparison with alternative scenarios and an analysis of the investment and technological barriers 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.

Additionally the assessment team reviewed the estimation of the projected emission reductions. We can confirm that the indicated amounts of emission reductions of annually 55,771 tonnes CO_{2e} over a crediting period of ten years represents a reasonable estimation using the assumptions given by the project documents.

Munich, 2005-09-28

Werner Betzenbichler

Head certification body "climate and energy"

Munich, 2005-09-28

Michael Rumberg

Project Manager

Annex 1

Validation Protocol

Table 1 Mandatory Requirements for Clean Development Mechanism (CDM) Project Activities

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3	Kyoto Protocol Art.12.2	See below	Table 2, Section E.4.1
2. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof	Kyoto Protocol Art. 12.2, Marrakesh Accords, CDM Modalities §40a	See below	Table 2, Section A.3
3. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC	Kyoto Protocol Art.12.2.	See below	Table 2, Section E.4.1
4. The project shall have the written approval of voluntary participation from the designated national authorities of each party involved	Kyoto Protocol Art. 12.5a, Marrakesh Accords, CDM Modalities §40a	Outstanding issue	The project has not obtained such an approval from Brazilian government and Investor Country so far. No documentation has been submitted to the validation team.
5. The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change	Kyoto Protocol Art. 12.5b	See below	Table 2, Section E
6. Reduction in GHG emissions shall be additional to any that would occur in absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity	Kyoto Protocol Art. 12.5c, Marrakesh Accords, CDM Modalities §43	See below	Table 2, Section B.2

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
7. Potential public funding for the project from Parties in Annex I shall not be a diversion of official development assistance	Marrakech Accords	þ	The funding for the project does not lead to a diversion of official development assistance as ODA does not contribute to the financing of the project.
8. Parties participating in the CDM shall designate a national authority for the CDM	Marrakech Accords, CDM Modalities §29	Outstanding issue	Brazil as Host Country has a designated national authority (DNA) for the CDM in place. The Investor Country shall also have designated DNA.
9. The host country shall be a Party to the Kyoto Protocol	Marrakech Accords, CDM Modalities §30	þ	Brazil has ratified the Kyoto Protocol on August 23, 2002.
10. Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received	Marrakech Accords, CDM Modalities §37b	See below	Table 2, Section G
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	Marrakech Accords, CDM Modalities §37c	See below	Table 2, Section F
12. Baseline and monitoring methodology shall be previously approved by the CDM Methodology Panel	Marrakech Accords, CDM Modalities §37e	See below	Table 2, Section B.1.1 and D.1.1
13. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords and relevant decisions of the COP/MOP	Marrakech Accords, CDM	See below	Table 2, Section D

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
	Modalities §37f		
14. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	þ	A global public stakeholder process on the UNFCCC website has taken place. No comments were received.
15. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances	Marrakech Accords, CDM Modalities, §45c,d	See below	Table 2, Section B.2
16. The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure	Marrakech Accords, CDM Modalities, §47	See below	Table 2, Section B.2
17. The project design document shall be in conformance with the UNFCCC CDM-PDD format	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	þ	The PDD is in conformance with the CDM Project Design Document (version 02).

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of Project Activity *The project design is assessed.*					
A.1. Project Boundaries *Project Boundaries are the limits and borders defining the GHG emission reduction project.*					
A.1.1. Are the project's spatial (geographical) boundaries clearly defined?	1,2, 3,4,5	DR, I	The project spatial boundaries are clearly described.	þ	
A.1.2. Are the project's system (components and facilities used to mitigate GHGs) boundaries clearly defined?	1,2, 3,4,5	DR, I	The projects components are defined. But the two basins of Fazenda Quilombo with a retention time of only 4 days and the fourth lagoon of Fazenda Cinco Estrelas are not described. <u>Clarification Request No. 1:</u> The PDD should be adjusted correspondingly and indicate clearly the exact number of lagoons also mentioning which ones are currently still in operation and which basins are comparable to a lagoon. <u>Clarification Request No. 2:</u> The owner of the individual Fazendas are not mentioned in the PDD. Therefore it is not always evident to assign the provided	**CR 1** **CR2**	þ þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			producer contracts to the individual farm sites. The owner of the individual farm sites should be indicated in the PDD.		
A.2. Technology to be employed *Validation of project technology focuses on the project engineering, choice of technology and competence/ maintenance needs. The validator should ensure that environmentally safe and sound technology and know-how is used.*					
A.2.1. Does the project design engineering reflect current good practices?	1,2, 3,4,5 9,14, 15, 16, 20, 21	DR, I	Yes, the project design does reflect current good practice. The design has been professionally developed. But a validation of the compatibility of the single components could not be evidenced during the visit on site. Clarification Request No. 3: Documentation demonstrating such a compatibility (check list after finishing construction and in the beginning commission phase) should be submitted to the assessment team.	**CR 3**	þ
A.2.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	1,2, 3,4,5 9,14, 15, 16, 20, 21	DR, I	Yes, the project does apply state of the art equipment. Clarification Request No. 4: A more detailed description of the design and technical characteristics of the applied equipment should be submitted to validation	**CR 4**	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			team.		
A.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,2, 3,4,5 7, 9, 14, 15, 16, 20, 21	DR, I	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 dry coffee and produce electricity.	þ	þ
A.2.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	1,2, 3,4,5 9,14, 15, 16, 20, 21	DR, I	Yes, initial training and maintenance efforts are required. During the visit at the project site the project developer confirmed that such a training has taken place and/or is envisaged. Clarification Request No. 5: The respective documentation (signed participation list and/or date of the scheduled trainings) of all farms should be submitted to the validation team.	**CR 5**	þ
A.2.5. Does the project make provisions for meeting training and maintenance needs?	1,2,3 4, 5, 10	DR, I	See comment above.	**CR 5**	þ
A.3. Contribution to Sustainable Development *The project's contribution to sustainable development is assessed.*					
A.3.1. Is the project in line with relevant legislation and plans in the host country?	1,2,3 4, 5,	DR, I	The project is generally in line with the relevant legislation and plans in the host country. The audit team assessed the	**CR 6**	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	11		existence of the environmental licenses at the single sites and checked whether the necessary actions to comply with the requirements formulated as a result of the last assessment process haven been undertaken. Clarification Request No. 6: The license of Fazenda Quilombo is valid only until 8. May 2005. Therefore the license must be renewed. The environmental licenses or the application for the licenses should be submitted to the validation team.		
A.3.2. Is the project in line with host-country specific CDM requirements?	1,2,3 4, 5, 11	DR, I	Brazil has so far not published any specific CDM requirements.	þ	þ
A.3.3. Is the project in line with sustainable development policies of the host country?	1,2,3 4, 5, 11	DR, I	Yes, the project is in line with the sustainable development policies of Brazil as improvements to manure management as well as energy supply are relevant issues in the national Brazilian policy.	þ	þ
A.3.4. Will the project create other environmental or social benefits than GHG emission reductions?	1,2,3 4, 5	DR, I	Yes. It can be expected that the project will create additional environmental benefits by reducing emissions of Volatile Organics Compounds (VOCs) by better fertilizing output.	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
B. Project Baseline *The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.*					
B.1. Baseline Methodology *It is assessed whether the project applies an appropriate baseline methodology.*					
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	1,2,3 4, 5	DR, I	Yes, the project is based on an approved methodology: AM0016 “GHG emission reduction from manure management systems”.	þ	þ
B.1.2. Is the baseline methodology the one deemed most applicable for this project and is the appropriateness justified?	1,2,3 4, 5	DR, I	Yes, the methodology is one out of two existing for the respective project type being most applicable for this project.	þ	þ
B.2. Baseline Determination *The choice of baseline will be validated with focus on whether the baseline is a likely scenario, whether the project itself is not a likely baseline scenario, and whether the baseline is complete and transparent.*					
B.2.1. Is the application of the methodology and the discussion and determination of the chosen baseline transparent?	1,2,3 4, 5	DR, I	Yes, the application is transparent.	þ	þ
B.2.2. Has the baseline been determined using conservative assumptions where possible?	1,2,3 4, 5	DR, I	Yes, the baseline is mainly determined using conservative assumptions. The data records verified during the audit involves especially the year 2004 and for Fazenda	**CR 7**	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Cinco Estrelas the last seven years and give a positive impression to the audit team. <u>Clarification Request No. 7:</u> The mentioned figures in the PDD are in some cases different to the data of the farm sites. The parameter “population” is in the PDD presumably determined by only obtaining data from one year in the past. Hence the conservativeness of the data can not be checked. The data should be corrected and further data should be added to improve the reliability of the number. The population data (i.e. analise de inventario, plots of PigCHAMP) of all farms of the last three years should be submitted to the audit team.		
B.2.3. Has the baseline been established on a project-specific basis?	1,2,3 4, 5	DR, I	Yes, the baseline has mainly been based on project specific data but the data for Step 3 “Economic comparison” is not project specific but refers to a typical swine farm and is reviewed by economist.	þ	þ
B.2.4. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	1,2,3 4, 5	DR, I	Yes, the baseline scenario sufficiently takes into account the respective effects.	þ	þ
B.2.5. Is the baseline determination compatible with the available data?	1,2,3 4, 5	DR, I	See comment B.2.2	CR 7	þ
B.2.6. Does the selected baseline represent the most likely scenario among other possible and/or	1,2,3 4, 5	DR, I	Yes, it has been made plausible that the chosen baseline scenario is the one	þ	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
discussed scenarios?			deemed most realistic under the given frame conditions.		
B.2.7. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario (e.g. through (a) a flow-chart or series of questions that lead to a narrowing of potential baseline options, (b) a qualitative or quantitative assessment of different potential options and an indication of why the non-project option is more likely, (c) a qualitative or quantitative assessment of one or more barriers facing the proposed project activity or (d) an indication that the project type is not common practice in the proposed area of implementation, and not required by a Party's legislation/regulations)?	1,2,3 4, 5, 7	DR, I	The project demonstrates via an economic analysis and the description of various barriers that it is not the baseline scenario. Moreover is has been evidenced at a single site that the farmer faced economic losses in the last two years. Corrective Action Request No. 1: The project has been partially implemented although a registration of the project as a CDM activity has not taken place. Please describe in chapter B2 (i.e. as step 0) and based on defined dates how the CDM has been taken into account from the beginning of the project in order to demonstrate the additionality of the project.	**CAR 1**	þ
B.2.8. Have the major risks to the baseline been identified?	1,2,3 4, 5	DR, I	Yes, major risks are described in step 5 of chapter B3.	þ	þ
B.2.9. Is all literature and sources clearly referenced?	3, 4, 5	DR, I	Yes, references have mainly been made to all data sources used.	þ	þ
C. Duration of the Project/ Crediting Period *It is assessed whether the temporary boundaries of the project are clearly defined.*					
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	1,2,3 4, 5	DR, I	The project starting date could be proven by the signed contracts between AgCert and the farmers. The operational lifetime is	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			defined in a reasonable manner.		
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	1,2,3 4, 5	DR, I	The crediting period should start on 1. Jan. 2004 but is mentioned 1. Jan. 2004. Clarification Request No. 8: The beginning of crediting period should be corrected.	**CR 8**	þ
D. Monitoring Plan *The monitoring plan review aims to establish whether all relevant project aspects deemed necessary to monitor and report reliable emission reductions are properly addressed ((Blue text contains requirements to be assessed for optional review of monitoring methodology prior to submission and approval by CDM EB).*					
D.1. Monitoring Methodology *It is assessed whether the project applies an appropriate baseline methodology.*					
D.1.1. Is the monitoring methodology previously approved by the CDM Methodology Panel?	1,2,3 4, 5, 27	DR, I	Yes, the project is based on an approved methodology.	þ	þ
D.1.2. Is the monitoring methodology applicable for this project and is the appropriateness justified?	1,2,3 4, 5, 27	DR, I	Yes.	þ	þ
D.1.3. Does the monitoring methodology reflect good monitoring and reporting practices?	1,2,3 4, 5, 27	DR, I	Yes.	þ	þ
D.1.4. Is the discussion and selection of the monitoring	1,2,3	DR,	Yes.	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
methodology transparent?	4, 5, 27	I			
D.2. Monitoring of Project Emissions *It is established whether the monitoring plan provides for reliable and complete project emission data over time.*					
D.2.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the project boundary during the crediting period?	1,2,3 4, 5, 17, 18, 19, 22, 23, 24, 25, 26	DR, I	Yes, the monitoring plan does include all relevant parameters to determine project emissions according to the requirements of the methodology. Clarification Request No 9: The QA/QC measures defined in chapter D.3 should correspond to the approach in the methodology applied. The procedures should be submitted to audit team and if documents are relevant it should be ensured that the farmer has a copy and is aware of the corresponding instructions.	**CR 9**	þ
D.2.2. Are the choices of project GHG indicators reasonable?	1,2,3 4, 5	DR, I	Yes	þ	þ
D.2.3. Will it be possible to monitor / measure the specified project GHG indicators?	1,2,3 4, 5	DR, I	Yes, it is possible to monitor and/or measure the currently specified GHG indicators.	þ	þ
D.2.4. Will the indicators give opportunity for real measurements of achieved emission reductions?	1,2,3 4, 5	DR, I	Yes.	þ	þ
D.2.5. Will the indicators enable comparison of project	1,2,3	DR,	Yes.	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
data and performance over time?	4, 5	I			
D.3. Monitoring of Leakage *It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.*					
D.3.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	1,2,3 4, 5	DR, I	It has been demonstrated in a plausible manner that leakage emissions are not expected to occur in a different manner between both scenarios. Recommendation: It is advisable to report the cases and the duration when the flare does not work regularly and biogas emits by water seal.	þ	þ
D.3.2. Have relevant indicators for GHG leakage been included?		DR, I	See comment D.3.1	þ	þ
D.3.3. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?		DR, I	See comment D.3.1	þ	þ
D.3.4. Will it be possible to monitor the specified GHG leakage indicators?		DR, I	See comment D.3.1	þ	þ
D.4. Monitoring of Baseline Emissions *It is established whether the monitoring plan provides for reliable and complete project emission data over time.*					
D.4.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining baseline emissions	1,2,3 4, 5, 13,	DR, I	Yes, the monitoring plan does include all relevant parameters to determine baseline emissions according to the requirements of	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
during the crediting period?	17, 18, 19, 22, 23, 24, 25, 26		the methodology.		
D.4.2. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	1,2,3 4, 5	DR, I	Yes.	þ	þ
D.4.3. Will it be possible to monitor the specified baseline indicators?	1,2,3 4, 5	DR, I	Yes, it is possible to monitor and/or measure the currently specified GHG indicators.	þ	þ
D.5. Monitoring of Sustainable Development Indicators/ Environmental Impacts *It is checked that choices of indicators are reasonable and complete to monitor sustainable performance over time.*					
D.5.1. Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	1,2,3 4, 5	DR, I	No, as a monitoring of such data is not required by the applied monitoring methodology.	þ	þ
D.5.2. Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?		DR, I	See comment D.5.2	þ	þ
D.5.3. Will it be possible to monitor the specified sustainable development indicators?		DR, I	See comment D.5.2	þ	þ
D.5.4. Are the sustainable development indicators in line with stated national priorities in the Host		DR, I	See comment D.5.2	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Country?					
D.6. Project Management Planning *It is checked that project implementation is properly prepared for and that critical arrangements are addressed.*					
D.6.1. Is the authority and responsibility of project management clearly described?	1,2,3 4, 5, 13, 17, 18, 19, 22, 23, 24, 25, 26	DR, I	The PDD does not clearly indicate the authority and responsibilities within the given project structure and no further documentation has been submitted so far. During the visit AgCert has described in detail how the respective organisational structure is already implemented and/ or planned. Further documents should reflect the actual and/or planned situation on site. The audit findings on site showed that the responsibilities are defined and communicated. <u>Clarification Request No. 10:</u> The currently valid operation and maintenance guidelines and instructions currently developed to operate the project should be submitted as soon as possible. The quality and environmental management system (QMS and EMS) currently under implementation within AgCert will help to support the project participants in operating the respective organisational structure. In the PDD it is made reference to this system	**CR 10-14**	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			at various chapters. <u>Clarification Request No. 11:</u> As most of the variable data is obtained directly at the site of the project owner, it should be made clear, how the QMS and EMS system do help to direct the owner and ensure proper data handling before the data enters the data management system of AgCert. The certification of the currently implemented management systems through an independent auditor demonstrates the correct implementation of the system. <u>Clarification request No. 12:</u> After having obtained the Ag cert ISO 9001 certificate, it should be submitted to the validation team. <u>Clarification Request 13:</u> The last page of the contracts signed with the owner should be submitted to the audit team.		þ
D.6.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	1,2,3 4, 5, 17,	DR, I	The responsibilities for all project participants are not clearly described in the PDD. See comment D.6.1	CR 10	þ
D.6.3. Are procedures identified for training of monitoring personnel?	1,2,3 4, 5,	DR, I	See comment D.6.1	CR 10	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	17,				
D.6.4. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	1,2,3 4, 5, 17,	DR, I	No, procedures for emergency cases are not described in the PDD. Clarification Request 14: During the visit AgCert has described how the procedure in emergency cases (i.e. gas emissions by water seal) works. AgCert or the main equipment provider has offices offering services close to the farm. The respective procedures should be described in the PDD or other documentation.	CR 14	þ
D.6.5. Are procedures identified for calibration of monitoring equipment?		DR, I	See comment D.6.1	CR 10	þ
D.6.6. Are procedures identified for maintenance of monitoring equipment and installations?		DR, I	See comment D.6.1	CR 10	þ
D.6.7. Are procedures identified for monitoring, measurements and reporting?		DR, I	See comment D.6.1	CR 10	þ
D.6.8. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)		DR, I	See comment D.6.1	CR 10	þ
D.6.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?		DR, I	See comment D.6.1	CR 10	þ
D.6.10. Are procedures identified for review of reported results/data?		DR, I	See comment D.6.1	CR 10	þ
D.6.11. Are procedures identified for internal audits of		DR,	See comment D.6.1	CR 10	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
GHG project compliance with operational requirements where applicable?		I			
D.6.12. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?		DR, I	See comment D.6.1	CR 10	þ
D.6.13. Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?		DR, I	See comment D.6.1	CR 10	þ
E. Calculation of GHG Emissions by Source *It is assessed whether all material GHG emission sources are addressed and how sensitivities and data uncertainties have been addressed to arrive at conservative estimates of projected emission reductions.*					
E.1. Predicted Project GHG Emissions *The validation of predicted project GHG emissions focuses on transparency and completeness of calculations.*					
E.1.1. Are all aspects related to direct and indirect GHG emissions captured in the project design?	1,2,3 4, 5, 6,	DR, I	Yes, all aspects are covered by the current approach.	þ	þ
E.1.2. Are the GHG calculations documented in a complete and transparent manner?	1,2,3 4, 5, 6,	DR, I	No, the calculations resulting in the final numbers have not been submitted. Clarification Request No. 15: The respective calculations should be submitted.	**CR 15**	þ
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	1,2,3 4, 5,	DR, I	See comment E 1.2	CR 15	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	6,		If conservative assumptions are used it cannot be assessed as long as the calculations have not been submitted.		
E.1.4. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	1,2,3 4, 5, 6,	DR, I	No. Clarification Request No. 16: The PDD should cover this issue in a reasonable manner.	**CR 16**	þ
E.1.5. Have all relevant greenhouse gases and source categories listed in Kyoto Protocol Annex A been evaluated?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
E.2. Leakage *It is assessed whether there leakage effects, i.e. change of emissions which occurs outside the project boundary and which are measurable and attributable to the project, have been properly assessed.*					
E.2.1. Are potential leakage effects beyond the chosen project boundaries properly identified?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
E.2.2. Have these leakage effects been properly accounted for in calculations?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
E.2.3. Does the methodology for calculating leakage comply with existing good practice?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
E.2.4. Are the calculations documented in a complete and transparent manner?	1,2,3 4, 5,	DR,	No.	CR 15	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	6,	I	See comment E.1.2		
E.2.5. Have conservative assumptions been used when calculating leakage?		DR, I	See comment E. 1.3	CR 15	þ
E.2.6. Are uncertainties in the leakage estimates properly addressed?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
E.3. Baseline Emissions *The validation of predicted baseline GHG emissions focuses on transparency and completeness of calculations.*					
E.3.1. Have the most relevant and likely operational characteristics and baseline indicators been chosen as reference for baseline emissions?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
E.3.2. Are the baseline boundaries clearly defined and do they sufficiently cover sources and sinks for baseline emissions?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
E.3.3. Are the GHG calculations documented in a complete and transparent manner?	1,2,3 4, 5, 6,	DR, I	No. See comment E.1.2	CR 15	þ
E.3.4. Have conservative assumptions been used when calculating baseline emissions?	1,2,3 4, 5, 6,	DR, I	See comment E.1.2	CR 15	þ
E.3.5. Are uncertainties in the GHG emission estimates properly addressed in the documentation?	1,2,3 4, 5, 6,	DR, I	No. See comment E.1.4	CR 16	þ
E.3.6. Have the project baseline(s) and the project emissions been determined using the same	1,2,3	DR,	Yes.	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
appropriate methodology and conservative assumptions?	4, 5, 6,	I			
E.4. Emission Reductions Validation of baseline GHG emissions will focus on methodology transparency and completeness in emission estimations.					
E.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	1,2,3 4, 5, 6,	DR, I	Yes.	þ	þ
F. Environmental Impacts *Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the validator.*					
F.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	1,2,3 4, 5	DR, I	Yes, the environmental impacts can be seen as being low. These low impacts have been sufficiently described in the PDD.	þ	þ
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	1,2,3 4, 5	DR, I	Environmental licenses are necessary in order to comply with the regulations. Whether these requirements for approval have been fulfilled cannot be assessed as long as the licenses are not submitted to the audit team. See comment A 3.1	CR 6	
F.1.3. Will the project create any adverse environmental effects?	1,2,3 4, 5	DR, I	No, negative environmental effects are not expected to be created by the project.	þ	þ
F.1.4. Are transboundary environmental impacts considered in the analysis?	1,2,3	DR,	No, but as the project site is far from the national boundary, such effects are not	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	4, 5	I	expected.		
F.1.5. Have identified environmental impacts been addressed in the project design?	1,2,3 4, 5	DR, I	As no significant environmental impacts are expected, such impacts have not influenced the project design.	þ	þ
F.1.6. Does the project comply with environmental legislation in the host country?	1,2,3 4, 5	DR, I	Yes.	þ	þ
G. Stakeholder Comments *The validator should ensure that a stakeholder comments have been invited and that due account has been taken of any comments received.*					
G.1.1. Have relevant stakeholders been consulted?	1,2,3 4, 5, 12	DR, I	Yes, the stakeholders included people from the local community and representatives of the State of Minas Gerais. The project was published in a regional newspaper and several letters from the local authorities supporting the project were received.	þ	þ
G.1.2. Have appropriate media been used to invite comments by local stakeholders?	1,2,3 4, 5, 12	DR, I	Yes, the stakeholders have been invited to a meeting. Clarification Request No. 17: The tape or the minutes incl. participation list from the meeting should be submitted to the validation team.	**CR 17**	þ
G.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 4, 5, 12	DR, I	A stakeholder process is not required.	þ	þ
G.1.4. Is a summary of the stakeholder comments	1,2,3	DR,	Yes.	þ	þ

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
received provided?	4, 5, 12	I			
G.1.5. Has due account been taken of any stakeholder comments received?	1,2,3 4, 5, 12	DR, I	Yes.	þ	þ

Table 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
Acc. to Kyoto Protocol and Marrakesh Accords the project shall have the written approval of voluntary participation from the designated national authorities of each party involved. Outstanding issue: The project has not obtained such an approval from Brazilian government and Investor Country so far. No documentation has been submitted to the validation team. Further It should be clear indicated in the PDD that the project in this stage is a unilateral project. Outstanding issue: Brazil as Host Country has a designated national authority (DNA) for the CDM in place. The Investor Country shall also have designated DNA	**Table 1, 4. and 8.**		The project as described in the revised project design document of September 2005, meets all relevant UNFCCC requirements for the CDM, set by the Kyoto Protocol, the Marrakech Accords and relevant guidance by the CDM Executive Board and that the project furthermore meets all relevant host country criteria and correctly applies the baseline and monitoring methodology AM0016. Prior to the submission of the validation report to the CDM Executive Board, TÜV SÜD will have to receive the written approval of the DNA of involved parties, including confirmation by the DNA of Brazil that the project assists in achieving sustainable development.
CAR 1 The project has been partially implemented although registration of the project as a CDM activity has not taken place. Please describe in chapter B2 (i.e. as step 0) and based on	**B.2.7**	Additionality is demonstrated and explained in chapter B.3. Further, the background statement contained in Step 5 of Chapter B.3 explains how CDM has been taken into account from	The contracts between the farmers and AgCert show that CDM has taken into account from the beginning of the project.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
defined dates how the CDM has been taken into account from the beginning of the project in order to demonstrate the additionality of the project.		the beginning. "To further clarify this action request, CDM functional area responsibility diagrams have been added to the AgCert VPN Annex 9. Applicable contracts have been posted to the AgCert VPN Annex 1.	This issue is considered to be resolved.
CR 1 The two basins of Fazenda Quilombo with a retention time of only 4 days and the fourth lagoon of Fazenda Cinco Estrelas are not described.	**A.1.2**	Per the site operator of Fazenda Quilombo, prior to the installation of the AgCert digester manure was handled as follows: On a periodic basis, liquid was being skimmed off the surface of the basin and used for irrigation; this occurred more frequently in hot whether when crops were growing. Solids, on the other hand, were removed approximately every six month. Hence according to our science department the GHG production activity in the basins replicated that which could be expected to be found in an anaerobic lagoon system	It could be accepted that the handling prior to the installations of the AgCert digester is regarding GHG emissions similar to anaerobic lagoons. This issue is considered to be resolved.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
CR 2 The owner of the individual Fazendas are not mentioned in the PDD. Therefore it is not always evident to assign the provided producer contracts to the individual farm sites. The owner of the individual farm sites should be indicated in the PDD.		A revised PDD (September 2005) was provided, which includes the owner of the farm sites	This issue is considered to be resolved.
CR 3 A validation of the compatibility of the single components could not be evidenced during the visit on site. Documentation demonstrating such compatibility (check list after finishing construction and in the beginning commission phase) should be submitted to the assessment team.	**A.2.1**	Component user manuals posted to AgCert VPN Annex 5.	This check list "Project Activity Site Configurator" and the "Post-Construction Assessment" serves as a "as built inventory" after finishing construction and before beginning the commission phase. It is considered as a validation that the whole installation works in the designed manner. This issue is considered to be resolved.
CR 4 A more detailed description of the design and technical characteristics of the applied equipment should be submitted to validation team.	**A.2.2**	See CR 2.	See CR2 This issue is considered to be resolved.
CR 5. The project requires initial training and maintenance efforts. During the visit at the	**A.1.1.**	The training schedule and outline has been posted to the AgCert VPN Annex 6. Attendance rosters will be posted as	The respective documentation (signed participation list and/or date of the scheduled trainings) of all farms were submitted to the validation team. It is

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
project site the project developer confirmed that such a training has taken place and/or is envisaged. The respective documentation (signed participation list and/or date of the scheduled trainings) of all farms should be submitted to the validation team.		they become available.	shown that the training occurred. This issue is considered to be resolved.
CR6 The license of Fazenda Quilombo is valid only until 8-May-2005. Therefore the license must be renewed. The environmental licenses or the application for licenses should be submitted to the validation team.	**A.3.1**	Posted to AgCert VPN Annex 7.	The procedure prolonging the license of Fazenda Quilombo is initiated. A meeting with the regarding authority has taken place and is documented by minutes. The size and the operation of the farm itself have not changed. There are no indications yet that the license could be refused. This issue is considered to be resolved.
CR 7 The mentioned figures in the PDD are in some cases different to the data of the farm sites. The parameter “population” is in the PDD presumably determined by only obtaining data from one year in the past. Hence the conservativeness of the data can not be checked. The data should be corrected and further data should be added to improve the reliability of the number. The population data (i.e. analise de inventario,	**B.2.2** **B.2.5**	Three (3) years of data for each site has been loaded to AgCert SMS and AgCert VPN Annex 4. (Confidential)	The population data were completely delivered (2002, 2003, 2004, first months of 2005). The conservativeness of the data was checked. The indicated figures in the PDD Annex 3 (September 2005) are consistent with delivered population data for each site. This issue is considered to be resolved.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
plots of PigCHAMP) of all farms of the last three years should be submitted to the audit team.			
CR 8 The crediting period should start on 1-Jan-05 but is mentioned as 1-Jan-04. The beginning of the crediting period should be adjusted.	**C.1.2**	The crediting period has been changed in the PDD to reflect the accurate starting dates.	The starting date is now correct mentioned in the PDD and could be accepted as reasonable. This issue is considered to be resolved.
CR 9 The QA/QC measures defined in chapter D.3 should correspond to the approach in the methodology applied. The procedures should be submitted to audit team and if documents are relevant it should be ensured that the farmer has a copy and is aware of the corresponding instructions.	**D.2.1**	During the review by the CDM Executive Board, AM0016 was revised (by the CDM EB). Version 2 was issued as AgCert continued to work to Revision 1. PDD and O&M Plan have been revised and posted to the AgCert VPN Annex 9.	Current O&M Plan does describe the relevant QA/QC measures. This issue is considered to be resolved.
CR 10 The currently valid operation and maintenance guidelines and instructions currently developed to operate the project should be submitted as soon as possible. The responsibilities for all project participants are not clearly described in the PDD. The quality and environmental management system (QMS and EMS) currently under	**D.6.1; D.6.2 D.6.3; D.6.5 D.6.6; D.6.7 D.6.8 D.6.9 D.6.10 D.6.11 D.6.12 D.6.13**	Current O&M Plan has been posted to the AgCert VPN Annex 9. Addressed in the revised O&M Plan posted to the AgCert VPN Annex 9. Current QEMS posted to AgCert VPN,	Current O&M Plan were delivered and describes operation and maintenance in appropriate manner. For the operation personnel the O&M Plan does also exist in Portuguese language. The responsibilities for project personnel are clearly described in the in

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
implementation within AgCert will help to support the project participants in operating the respective organizational structure. In the PDD it is made reference to this system at various chapters.		Quality & OM Manuals.	O&M Plan. Current QEMS were delivered. This issue is considered to be resolved.
CR 11 As most of the variable data is obtained directly at the site of the project owner, it should be made clear, how the QMS and EMS system do help to direct the owner and ensure proper data handling before the data enters the data management system of AgCert. The certification of the currently implemented management system through an independent auditor demonstrates the correct implementation of the system.	**D.6.13**	The processes for "Collecting" and "Handling" of data is described in the O&M Plan posted to the AgCert VPN Annex 9. Current QEMS (as approved by Registrar) posted to AgCert VPN, Quality & OM Manuals.	The processes for "Collecting" and "Handling" of data is described in the O&M Plan. Including QA/QC measures. This issue is considered to be resolved.
CR 12 After having obtained the AgCert ISO 9001 certificate, it should be submitted to the validation team.	**"**	Upon satisfactory completion of AgCert's ISO 9001/14001 registration a copy of the issued certificate will be available on line.	Currently no ISO 9001 certificate is available. The process is ongoing. This issue is considered to be resolved.
CR 13 The audit findings on site showed that the responsibilities are defined and	**"**	Producer contracts have been posted to the AgCert VPN Annex 1.	This issue is considered to be resolved.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
communicated. The last page of the contract signed with the owner should be submitted to the audit team.			
CR 14 During the visit AgCert has described how the procedure in emergency cases (i.e. gas emissions by water seal) works. AgCert or main equipment provider has offices offering services close to the farm. The respective procedures should be described in the PDD or other documentation.	**D.6.4**	The procedures for Emergency Maintenance notification are described in 4.3.1 of the O&M Plan. "Alternative Operating Procedures" designed to prevent unintended emissions are found in 4.2.2.7, 4.2.3.6, 4.2.4.5, and 4.2.5.5 of the O&M Plan.	The procedures for Emergency Maintenance notification are described in the O&M Plan. This issue is considered to be resolved.
CR 15 The calculations resulting in the final numbers have not been submitted. The respective numbers should be submitted.	**E.1.2** **E.1.3 E.2.4** **E.2.5** **E.3.4**	Required calculations have been posted on the AgCert VPN Annex 2.	The calculations have been submitted. The calculations are correct. The used population data are the last available one of the past year. The populations of two farms (Granja Ressaca and Fazenda Sao Bernardo) have gone up during the last three years. It is expected that the assumed level of population will be at comparable level in the future. This issue is considered to be resolved.
CR 16 The PDD should cover this issue (uncertainties) in a reasonable manner.	**E.1.4** **E.3.5**	Uncertainty parameters are addressed in Table E1-2 of the PDD.	This issue is considered to be resolved.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
CR 17 The tape or the minutes including participation list from the meeting should be submitted to the validation team.	**G.1.2**	All relevant stakeholders meeting information has been posted to AgCert VPN, Annex 8.	Invitations, letters and response of relevant stakeholders were submitted. The presentation of AgCert at the meeting was delivered. The participation lists were not submitted. This issue is considered to be resolved.

Annex 2

Information Reference List

Reference No.	Document or Type of Information
1	On-site interviews at the farms in Minas Gerais with the project developer and the representatives of the farms conducted on April, 2005 by auditing team of TÜV SÜD **Validation team on-site:** Klaus Nürnberger — TÜV Industrie Service GmbH TÜV SÜD Group Odair Roveri — Ingwaass Qualidade Continua **Interviewed persons:** Miguel Gastao de Oliveira — AgCert Do Brasil Solucuoes Ambientas Ltda. Dave Lawrence — AgCert Do Brasil Solucuoes Ambientas Ltda. Hamilton — AgCert Do Brasil Solucuoes Ambientas Ltda. Lucio Roberto Alamy — Fazenda Quilombo Christiano Franco de Mendonça — Granja CFM José Antonio da Silveira — Fazenda Esplanade
2	On-site interview at the offices of AgCert in Patos de Minas with the project developer and with the representative of the Fazenda Cinco Estrela conducted on October 13, 2004 by auditing team of TÜV SÜD **Validation team on-site:** Michael Rumberg — TÜV Industrie Service GmbH TÜV SÜD Group Wilson Tomao — Ingwaass Qualidade Continua **Interviewed persons:** Ricardo dos Santos Bartholo — Fazenda Cinco Estrelas Michael Mirda — AgCert
3	Project Design Document “AWMS GHG Mitigation Project BR05-B-01, Minas Gerais”, AgCert International Ltd, January 2005
4	Project Design Document “AWMS GHG Mitigation Project BR05-B-01, Minas Gerais”, AgCert International Ltd, May 2005

Reference No.	Document or Type of Information
5	Project Design Document “AWMS GHG Mitigation Project BR05-B-01, Minas Gerais”, AgCert International Ltd, September 2005
6	Calculation of baseline and project emissions “WMS GHG Mitigation Project BR05-B-01, Minas Gerais”, AgCert, excel file, July 2005
7	Economic Analysis, Word file on CD, submitted July 2005
8	Farm Production Data of the last three years of each farm, pdf-files on CD, submitted September 2005 (confidential)
9	AWMS Technical Specifications, Word-files on CD, submitted July 2005
10	Training Documentation, Participants list, Training Schedule, Presentation, Word-, Excel-, pdf-Files on CD; submitted September 2005
11	Licenses and Permits, pdf-Files on CD, submitted on September 2005
12	Correspondence Stakeholder, Published invitations to Stakeholder Meeting in newspapers, emails and pdf-files on CD, submitted September 2005-08-09
13	Project Management, Responsibilities and Process flow, word-files on CD, submitted September 2005
14	Technical specification of the PVC flexible film (biodigester cover) submitted November 17, 2004 (confidential)
15	Technical specification on flare unit, submitted November 17, 2004 (confidential)
16	Technical specification on biodigester, submitted November 17, 2004 (confidential)
17	Operations and Maintenance (O&M) Plan for AWMS Greenhouse Gas (GHG) Mitigation Projects, dated 23 May 2005 (confidential)
18	AgCert Quality and Environmental Management System Handbook, August 2004
19	Pre-Assessment Checklist for ISO 9001/ISO14001 certification, issued by QMI
20	Flare Unit Service Specifications, submitted November 17, 2004 (confidential)
21	Gasflow Meter Service Specifications, submitted November 17, 2004 (confidential)
22	Annual Data Collection, AgCert Form B, October 04, file on CD, submitted September 2005
23	Post Construction Assessment, AgCert Form, May 2005, file on CD, submitted September 2005
24	Monthly Inventory Reporting, AgCert Form, pdf-file on CD, submitted September 2005
25	Monthly Monitoring Form, AgCert Form MS004-F2, pdf-file on CD, submitted September 2005
26	Weekly Monitoring Form, AgCert Form MS004-1F1, pdf-file on CD, submitted September 2005
27	Approved baseline methodology AM0016: Greenhouse gas mitigation from improved Animal Waste Management Systems in confined animal feeding operations. UNFCCC, 2004
28	IPCC: Revised 1996 Guidelines for National Greenhouse Gas Inventories

Reference No.	Document or Type of Information
29	IPCC: 2000, Good Practice Guidance
30	UNFCCC, CDM: Tool for the demonstration and assessment of additionality” approved by the EB (EB 16, annex 1).
31	Validation and Verification Manual, IETA/World Bank (PCF), http://www.vvmanual.info
32	Calculation of leakage effect based on IEA (2002) figures, January 2005
33	IEA (2002): Road-Testing Baselines for Greenhouse Gas Mitigation Projects in the Electric Power Sector