



Industrie Service

Choose certainty.
Add value.

Validation Report

AgCert International PLC

VALIDATION OF THE CDM-PROJECT:
AWMS METHANE RECOVERY PROJECT
BR07- S -31, MATO GROSSO DO SUL,
PARANA, RIO GRANDE DO SUL, AND SANTA
CATARINA, BRAZIL

REPORT NO. 949531

Nov 23, 2007

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

| Report No. | Date of first issue | Revision No. | Date of this revision | Certificate No. |
|------------|---------------------|--------------|-----------------------|-----------------|
| 949531 | February 12, 2007 | 2 | 23-11-2007 | --- |

| | | | |
|--|--|---|--|
| Subject: Validation of a CDM Project | | | |
| Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich FEDERAL REPUBLIC OF GERMANY | | TÜV SÜD Contract Partner: TÜV SÜD Industrie Service GMBH Carbon Management Service Westendstrasse 199 – 80686 Munich Federal Republic of Germany | |
| Client: AgCert International PLC Apex Building, Blackthorn Road, Sanyford Business Park Dublin 18, IRELAND | | Project Site(s): Sitio Alto do Ceu, Fazenda Buritis, Fazenda S. Marcos, Granja Enori Polizza, Fazenda Erno Roberto Binsfeld, Granja Jucelia, Site I | |
| Project Title: AWMS METHANE RECOVERY PROJECT BR07- S -31, MATO GROSSO DO SUL, PARANA, RIO GRANDE DO SUL, AND SANTA CATARINA, BRAZIL | | | |
| Applied Methodology / Version: AMS III.D version 11 | | Scope(s): 10, 13 | |
| First PDD Version: Date of issuance: 2007-01-23 Version No.: 1 Starting Date of GSP 2007-01-31 | | Final PDD version: Date of issuance: 2007-11-14 Version No.: 4 | |
| Estimated Annual Emission Reduction: | | 16,398 tons CO _{2e} | |
| Assessment Team Leader: Markus Knödseder | | Further Assessment Team Members: Wilson Tomao Sandro Marostica | |
| Summary of the Validation Opinion: | | | |
| <input checked="" type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively. | | | |
| <input type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision. | | | |

Abbreviations

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

| Table of Contents | Page |
|--|-------------|
| 1 INTRODUCTION | 4 |
| 1.1 Objective | 4 |
| 1.2 Scope | 4 |
| 2 METHODOLOGY | 5 |
| 2.1 Appointment of the Assessment Team | 7 |
| 2.2 Review of Documents | 7 |
| 2.3 Follow-up Interviews | 8 |
| 2.4 Resolution of Clarification and Corrective Action Requests | 9 |
| 2.5 Internal Quality Control | 9 |
| 3 SUMMARY OF FINDINGS | 10 |
| 4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS | 11 |
| 5 VALIDATION OPINION | 12 |

Annex 1: Validation Protocol

Annex 2: Information Reference List

1 INTRODUCTION

1.1 Objective

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

The project activity discussed by this validation report has been submitted under the project title:

AWMS METHANE RECOVERY PROJECT BR07- S -31, MATO GROSSO DO SUL, PARANA, RIO GRANDE DO SUL, AND SANTA CATARINA, BRAZIL

1.2 Scope

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

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

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

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

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

2 METHODOLOGY

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

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

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

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

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

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

Together with the new CDM-SCC-PDD format TÜV SÜD changed its validation report format as well. As for this specific project the final PDD was applying a different version of the CDM-SSC-PDD format than the first one, the validation protocol includes a table 2a and table 2b (considering the new PDD format).

| Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests | | | |
|---|---|---|--|
| Clarifications and corrective action requests | Ref. to table 1 | Summary of project owner response | Validation team conclusion |
| <i>If the conclusions from table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.</i> | <i>Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.</i> | <i>The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.</i> | <i>This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final PDD".</i> |

In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

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

2.1 Appointment of the Assessment Team

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

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

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

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

| Name | Qualification | Coverage of technical scope | Coverage of sectoral expertise | Host country experience |
|---------------------------|---------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Markus Knödlseider | ATL | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Wilson Tomao | GHG-A | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Sandro Marostica | GHG-A | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Markus Knödlseider is an auditor for climate change projects and GHG emission inventories at the department "Carbon Management Service" in the head office of TÜV Industrie Service GmbH, TÜV Süd Group in Munich. He has been involved in the topic of environmental auditing, baselining, monitoring and verification due to the requirements of the Kyoto Protocol since Oct. 2001. His main focus lies on renewable energies.

Wilson Tomao is lead auditor for environmental management systems. He is familiar with local laws and regulations and the assessment of technical installations. He has been working for TÜV SÜD as a GHG auditor since March 2002.

Sandro Marostica is a Food Engineer with an MBA from IMD, Lausanne Switzerland. He had acquired his first experiences in the CDM market through the creation of his broker dealer company in the UK to negotiate CER forward contracts from CDM projects in Brazil from August 2004. Based in Brazil he has been working for TÜV SÜD since April 06 as General Manager and GHG auditor, and is familiar with local laws and regulations.

2.2 Review of Documents

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

2.3 Follow-up Interviews

An initial onsite visit at the central office of Agcert do Brazil has been performed in June 2006, in order to check the principle project and data management (see Annex 2). In the period of October 31, 2006 TÜV SÜD performed interviews on-site with project stakeholders to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of this on-site visit.

| Organisation | Interviewed Person and function |
|-------------------------------|----------------------------------|
| Sitio Alto do Ceu | Milton Bigatão |
| Fazenda Buritis | João Carlos Barrankevicz |
| Fazenda São Marcos | Ademir Batelo, Andre Pietribiasi |
| Granja Enori Pelizza | Onadir Rossi |
| Fazenda Erno Roberto Binsfeld | Alceu Binsfeld |
| Granja Jucelia, Site I | Lauri Emilia Rauber |
| AgCert | Afonso Rosalen |
| AgCert | Thomas Jefferson Cardoso |
| AgCert | Jose Geraldo Oliveira |
| AgCert | Gilson Duarte |

2.4 Resolution of Clarification and Corrective Action Requests

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

2.5 Internal Quality Control

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

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

3 SUMMARY OF FINDINGS

The following description of the project as per PDD could be verified during the on-site audit:

The purpose of this project is to mitigate and recover animal effluent related GHG by improving AWMS practices.

This project proposes to apply the Methane Recovery methodology identified in Section III.D, of the Indicative Simplified Baseline and Monitoring Methodologies for Small-Scale CDM Project Activity Categories. The proposed project activities will mitigate and recover AWMS GHG emissions in an economically sustainable manner, and will result in other environmental benefits, such as improved water quality and reduced odour. In simple terms, the project proposes to move from a high-GHG AWMS practice, an open air lagoon, to a lower-GHG AWMS practice, an ambient temperature anaerobic digester with capture and combustion of resulting biogas.

Summarizing those findings briefly, the validation team identified that:

- The number of submitted population and the farm growth rate were not considered correctly,
- The location of sub-projects and project boundary were not transparent in the first PDD,
- The technical layout of the project were not clear at the beginning in order to access the total amount of potential emission reduction,
- During the validation the validity of applied methodology had changed, so the participants were requested to follow those changes as well,
- Further finding were addressed how Agcert will ensure reliable monitoring by using appropriate equipment and qualified employees.

The required documents and information have been submitted to the DOE and have been considered also in the final version of the PDD.

Hence, the project complies with the requirements.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on its website from and invited comments within 30 days, by Parties, stakeholders and non-governmental organizations

The following table presents all key information on this process:

| | |
|--|----------------------------|
| webpage: http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=2560&Ebene1_ID=26&Ebene2_ID=762&mode=1 | |
| Starting date of the global stakeholder consultation process: January 31, 2007 until March 01, 2007 | |
| Comment submitted by: none | Issues raised: - |
| Response by TÜV SÜD: - | |

The GSP has not been repeated since the content of the PDD and the project layout has not changed.

5 VALIDATION OPINION

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

AWMS METHANE RECOVERY PROJECT BR07- S -31, MATO GROSSO DO SUL, PARANA, RIO GRANDE DO SUL, AND SANTA CATARINA, BRAZIL

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

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


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

Munich, 2007-11-23



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

Munich, 2007-11-23



Assessment Team Leader

Validation of the CDM Project:

AWMS METHANE RECOVERY PROJECT BR07- S -31, MATO GROSSO
DO SUL, PARANA, RIO GRANDE DO SUL, AND SANTA CATARINA,
BRAZIL



Industrie Service

Annex 1: Validation Protocol