



Validation Report Template

01st February 2009

Social Carbon Validation Report:

Name of Validation company:	Date of the issue:
BRTÜV – TÜV NORD	May 10 th , 2009
Report Title:	Approved by:
Final Validation Report GOMES DE MATTOS CERAMIC  OS 5836	Dr. Gilberto Andrade
Client:	Project Title:
Social Carbon	“ GOMES DE MATTOS CERAMIC FUEL SWITCHING PROJECT”
Work carried out by:	Number of pages:
Plínio Makarowits de Mattos	16

Table of Contents

1	Introduction	3
1.1	Objective	3
1.2	Scope and criteria	3
1.3	Social Carbon project description	3
1.4	Indicators of the Social Carbon	4
1.5	Social Carbon project criteria	8
2	Methodology	9
2.1	Review of Document	9
2.2	Follow-up Interviews	9
2.3	Resolution of material discrepancies	10
3	Validation Findings	11
3.1	Project Design	11
3.2	Indicators of the Social Carbon	13
3.3	Results	14
4	Validation conclusion	14
5	References	15

1 Introduction

1.1 Objective

The purpose of this validation is to have an independent third party assessment in order to evaluate the accuracy and consistency of the Indicators of the Social Carbon Standard.

In particular, the validation addresses the site data related to the scope of the project and the specific report prepared to address the “Zero Point” of the project in order to document the initial Indicators and the compliance with the requirements of the Social Carbon Standard.

Validation is seen as necessary to provide assurance to stakeholders on the quality and veracity of the project and indices obtained.

1.2 Scope and Criteria

The validation is based on independent site visit and evaluation as well as on document evaluation and review. The following are the reference documents:

- "Guide for Completing Social Carbon Reports - Version 03, October 2008";
- "Indicators for Ceramic Industry Sector - Version 07, September 2008 ";
- " Zero Point Gomes de Mattos Social Carbon Report dated April 28th, 2009";
- “Manual for Registration of Projects in the Social Carbon Registry (SCR) - Version 02, June 2008”.
- ” Project Design Document for Gomes de Mattos Ceramic Switching Fuel Project - Version 02 dated May 04th, 2009”.

1.3 Social Carbon project description

The Gomes de Mattos Ceramic is located in Crato City, State of Ceará - Brazil. The company produces red ceramic pieces for civil construction. The project activity involves fuel switching from native firewood to eucalyptus firewood to feed the ceramic kilns. Through the fuel switch, GHG emission reduction is achieved.

Due to the project activity, investments were necessary to change the facility in order to allow the production with the new fuel mixture, such as: new mechanical burners to feed the kilns, adjustments in the kilns entrance that were adapted to the new Biomass also, construction of a shed to store the renewable biomass and staff training regarding the new fuel adoption.

The project contributes to the sustainable development as due to its activity it will: diversify and improve sources of thermal energy generation; make possible new renewable biomass thermal energy generation technologies to be applied in the ceramic sector or at other similar process; reuse biomass waste material; utilize renewable sources of biomass for thermal energy generation and contributes to the local biome preservation.

1.4 Indicators of the Social Carbon

"Zero Point Gomes de Mattos Social Carbon Report" was issued at April, 2009 by Social Carbon with evaluation of the complete initial set of Indicators of the Social Carbon in order to characterize the "Zero Point" of the Gomes de Mattos Ceramic. The diagnosis has a reference data of March, 2007 and was concluded at March, 2008.

The evaluation included the Social Resources (4.1), the Human Resources (4.2), the Financial Resources (4.3), the Natural Resources (4.4), the Technological Resources (4.5) and the Carbon Resources (4.6), as prescribed in the Social Carbon Methodology with the number in brackets indicating the reference of the Indicators as defined in the reference document "Indicators for Ceramic Industry Sector - Version 07, September 2008 ". The Indicators for the Zero Point of Gomes de Mattos Ceramic are as follows:

(4.1) Social Resources

1. Turnover: The Turnover Index can be obtained by the fraction among the average dismissal numbers, and the employees working at the enterprise in a given moment. $TI = (\text{dismissed workers} + \text{hired workers}) / \text{number of workers employed in the enterprise}$.

Index: 01 (One)

2. Working Conditions: Evaluates the working condition to which the employees are submitted, including insalubrious characteristics and the working period.

Index: 04 (Four)

3. Benefits: Evaluate the benefits offered by the entrepreneur to the workers, in addition to the obligatory benefits. Additional benefits will be considered as Meal Voucher, Basic Alimentary Provision, Education and Capacitating Programs (including financial help), Medical Assistance, Private Welfare, among others. The additional benefits do not include Transportation Ticket.

Index: 04 (Four)

4. Social Inclusion: Evaluates the existence of effective programs giving priorities for hiring local manpower and social inclusion, without any prejudice against gender, handicaps, or other minority groups.

Index: 03 (Three)

5. Relation with the community: Evaluates the relationship among the entrepreneur and the community, as well as his contribution in social events and activities.

Index: 02 (Two)

6. Social Return of the project: Evaluates the benefits reverted to the stakeholders when that benefits are measurable or evidenced.

Note: the definition of the scope of the benefits (limited, satisfactory or unsatisfactory) must take into account the size of the project and the organization(s) involved(s).

Index: 01 (One)

(4.2) Human Resources

7. Scholarship: Evaluates the scholarship level of the employees, and the contribution of the entrepreneur for the promotion of education among the workers.

Index: 03 (Three)

8. Professional Qualification: Evaluates the level of Professional qualification among the workers. Note: Professional qualification will be considered as any course which was concluded in educational institutions, which give specific abilities for the employees, promoting the earnings generation and their inclusion in the job market.

Index: 02 (Two)

9. Capacitating Plan: Evaluates the initiatives of the enterprise in regard with capacitating plans and programs, including, if they exist, their approach, strategies, frequency and the satisfaction of the employees., Strategic vision in encouraging courses, and so on.

Index: 04 (Four)

10. Use of Individual Protection Equipments (IPEs): Evaluates the workers and entrepreneur conduct regarding the equipments use and the security procedures.

Index: 04 (Four)

11. Actions of Health and Safety: Evaluates the existence and performance of campaigns, leisure and goal and plans regarding to health and security.

Index: 03 (Three)

12. Satisfaction: Intends to identify the satisfaction of the employees, as well as the demands related to the improvement of working conditions.

Index: 01 (One)

(4.3) Financial Resources

13. Financing: Evaluates the enterprise feasibilities to obtain credits along with financial institutions and the accomplishing of the date and commitments assumed.

Index: 04 (Four)

14. Production: Evaluates the evolution of the production capacity over the years.

Index: 03 (Three)

15. Anticipation: Evaluate the existence of anticipations concerning the business for the next few years.

Index: 05 (Five)

16. Carbon market: Evaluates the situation of marketing of carbon credits of the period considered and its recovery over time.

Index: 06 (Six)

17. Financial Planning: Evaluates the existence of economic control during the implantation and operation of the project activity.

Index: 01 (One)

(4.4) Natural Resources

18. Sustainability Principles: Evaluates the existence of specific policies and programs geared towards the enterprise sustainability and the applicability of the principles, values and objectives regarding sustainability.

Index: 02 (Two)

19. Environmental Management: Evaluates the environmental management procedures adopted by the entrepreneur, including the organization and coordination of environmental actions, as well as the existence of a regular certification.

Index: 03 (Three)

20. Environmental Legislation: Evaluates the accordance of the enterprise with environmental laws and norms, including agreements with public authorities.

Index: 05 (Five)

21. Lawsuit Procedures: Evaluates if the entrepreneur was involved with any lawsuit or administrative sanctions executed by public organs, person or people, aiming the environment and human health protection or repair.

Index: 06 (Six)

22. Energy: Evaluates (burning and drying): the fuel applied to fire the ceramic devices, just as the origin and control of the biomass.

Index: 06 (Six)

23. Clay: Evaluates if the enterprise is exploiting mineral clay, and the existence of Environmental Control plan concerning the clay extraction.

Index: 05 (Five)

24. Water: Evaluate the origin of the water used in the productive process, besides the legal and sustainable aspects of its exploitation.

Index: 01 (One)

25. Emissions to the atmosphere: Evaluates the control over the atmospheric emissions involving the gases emitted during the productive process, except the greenhouse gases.

Index: 03 (Three)

26. Residues from the Productive Process: Evaluates the treatment and destination dispended to the industrial residues generated in the productive process, just as the existence of a residues management plan.

Index: 02 (Two)

27. Ashes: Evaluates the procedures adopted by the entrepreneur in order to control the ashes and its destination.

Index: 03 (Three)

(4.5) Technologic Resources

28. Kilns burning efficiency: Evaluates the efficiency level and the kind of the kilns used to fire the devices in the ceramic productive process.

Index: 05 (Five)

29. Devices Drying: Evaluates the efficiency of the methods executed to dry the devices (stage before the fire, and after the extrusion), avoiding fissures in the final product. It also considers the employee of a system able transfer the heat provided by the kiln to the devices drying.

Index: 04 (Four)

30. Devices Firing: Evaluates the existence and the automation of the fire monitoring system and the kilns alimentation, as well as the construction of the fire curve graphic.

Index: 05 (Five)

31. Kilns Alimentation: Evaluates the procedures used for the kilns alimentation, either if they are automated or not.

Index: 01 (One)

32. Products Variety: Evaluates the products variety, the kind of products, including the existence of personalized products or with high value in the consumer market.

Index: 04 (Four)

33. Quality Control: Evaluates the procedures adopted by the entrepreneur, during the productive process, aiming to ensure the quality of the devices. It also verifies the existence of a quality certification

Index: 04 (Four)

(4.6) Carbon Resources

34. Additionality: Evaluate if the reduced greenhouse gases emissions that were additional; this means, without the project, the reductions wouldn't happen. This item evaluates the tools used to confirm the additionally according to national and international standards.

Index: 05 (Five)

35. Emission Reductions Calculations & Monitoring: Evaluates the methodologies used to calculate the emission reductions, the monitoring and if it is suitable to the national and international standard.

Index: 06 (Six)

36. Validation & Verification: Evaluates if the credits are accepted by the UNFCCC, and if the validation and verification procedures are according to national and international standards.

Index: Not Applied

37. Project Performance: Evaluates the project performance in comparison to the e emission reductions estimated in the PDD- Project Design Document.

Index: Not Applied

38. Involvement of the employees in the project: Evaluates the internal communication related to the emissions reduction project.

Index: 01 (One)

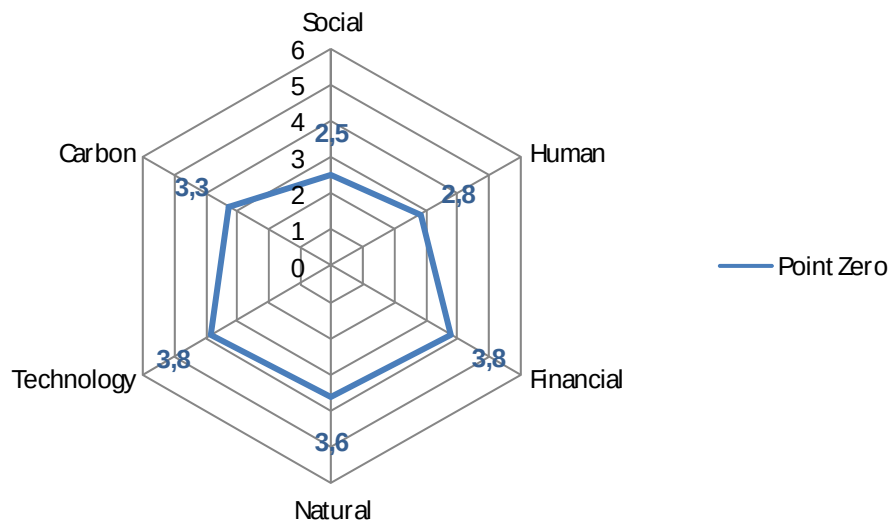
39. Involvement of the Stakeholders: Evaluates the contact procedures and the involvement of the stakeholders with the emissions reduction project.

Index: 01 (One)

(4.7) Project Performance

Table 1 – Project Sustainability Performance – Point Zero- 2008

Resource	Critical	Satisfactory	Sustainable	Average	Performance
Social	50.0%	50.0%	0.0%	2.50	Critical
Human	33.3%	66.7%	0.0%	2.83	Critical
Financial	20.0%	40.0%	40.0%	3.80	Satisfactory
Natural	30.0%	30.0%	40.0%	3.60	Satisfactory
Technology	16.7%	50.0%	33.3%	3.83	Satisfactory
Carbon	50.0%	0.0%	50.0%	3.25	Satisfactory
General	33%	39%	27%	3.30	Satisfactory



1.5 Social Carbon Project Criteria

Application of the indicators:

a. Group working: Participatory meetings with representatives of the organization and/or community involved in the project. The meeting is conducted by a professional whose function is to guide the participants through a discussion of the elements contained in the indicators. The results of the discussion must be noted, compiled and scored according to the indicators.

b. Interviews: Some key informants are interviewed in a semi-structured manner, with the aim of obtaining information through indirect means about the six resources of Social Carbon Methodology. The results of the interviews must be noted, compiled and scored according to the indicators.

c. Questionnaires: May be applied by professionals to the community involved, as well as to key informants in the organization, to collect information. The results of the research must be noted, compiled and scored according to the indicators.

The researcher responsible for drawing up the Social Carbon Point Zero report may choose a single method of applying indicators, or combine them to obtain better results.

Other methods for applying indicators are subject to approval by the Social Carbon Team

2 Methodology

The validation of the project was carried out from October 2008 to May 2009.

Preparations: 2008-10-01 and 2009-05-10 to 2009-05-12

On-site visit: 2008-10-08

Draft Reporting: 2009-05-10

Final Reporting: 2009-05-22

The validation consists of the following three phases:

- Desk review of the project design and Social Carbon reference documents as indicated in item 1.2 above.
- Site visit and follow-up interviews
- Resolution of outstanding issues and the issuance of the Final Validation Report and Opinion.

2.1 Review of Document

Social Carbon Report and proof of title submitted by Gomes de Mattos Ceramic, as well as the supporting documents were reviewed. Refer to Table 5-1.

The Social Carbon Report submitted by Gomes de Mattos Ceramic and background documents related to the project design were reviewed.

Furthermore, the validation team used additional documentation by third parties like host party legislation, and technical data based on the project design provided by the company.

Afterwards, this report show the documents considered during the validation process and listed as follows:

Documents provided by the project proponent (Table 5-1)

Background investigations and assessment documents (Table 5-2)

Websites consulted (Table 5-3)

2.2 Follow-up Interview

Before and during the on-site visit on 2008-10-08, the verifier of TÜV NORD performed interviews with the project participants to confirm selected information and to resolve issues identified in the document review.

Gomes de Mattos Ceramic's owners and Social Carbon consultants were interviewed. The main topics of the interviews are summarised in Table 5-4 and the participant's information is addressed in table 5-5.

2.3 Resolution of any material discrepancy

The report includes Corrective action and Clarification Requests (CAR and CR) identified in the course of this validation.

A Corrective Action Request is established if:

mistakes have been made in assumptions or the project documentation which directly will influence the project results,

the requirements deemed relevant for validation of the project with certain characteristics have not been met or

A Clarification Request is issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

After resolution of these CARs and CRs by the project proponent the validator is now issuing the Final Validation Report and opinion.

07 CARs and 01 CR were found during pre-validation. Please refer to Section 3.

3 Validation Findings

3.1 Project Design

CAR/CR	Reference	Summary of project owner response	Revised sections (as applicable)	Conclusion
CAR 01 The template used is not the same template of Guide For Completing Social Carbon Report - Version 03. Please, correct.	SCR/ All Section	It was corrected.	SCR/ All Section	OK . CAR is resolved.
CAR 02 The total reductions estimated in a period of ten years, in section 2.2 of the SCR, is different of the values indicated in the " Project Design Document for Gomes de Mattos Ceramic Switching Fuel Project - Version 02 dated May 04th, 2009". Please correct the information in the section 2.2.	SCR /Section 2.2	It was actualized according to Project Design Document for Gomes de Mattos Ceramic Switching Fuel Project - Version 03 dated May 22 nd , 2009	SCR /Section 2.2	OK . CAR is resolved.
CAR 03 The continuously improving social / environmental performance is defined as a criterion for eligibility of the project in the SC Methodology. Explain the reason why it was not addressed in the SCR.	SCR	As decided in 10/02/09, the continuously improving performance is applicable fulfilling the options below: 1. In order to keep the certification, the community/businesses cannot show decrease in a same resource twice consecutive. 2. The project	Not Applicable	OK . CAR is resolved.

Social Carbon Validation Report Template

CAR/CR	Reference	Summary of project owner response	Revised sections (as applicable)	Conclusion
		proponent must demonstrate perspectives of improvements and evidences that at least a little of these perspectives have been developed in the community/business. 3. These criteria must be applied and considered only after the carbon credits income. 4. The project proponent will have a period (until the next validation) to regularize its situation. In case the ceramic does not regularize its situation, the Social Carbon Certification will be removed and excluded from the ceramic. Therefore, it is not necessary to establish a continuously improvement criteria in the mark zero of the social carbon report. Nevertheless, the perspectives demonstrations are enumerated in the end of the social carbon report		

3.2 Indicators of the Social Carbon

CAR/CR	Reference	Summary of project owner response	Revised sections (as applicable)	Conclusion
CAR 04 In the site visit was not shown records of donations. Please, make the corrections or describe the records of donations in the indicator 05 in section 4.	SCR/ Section 4 Indicator 05	The indicator was corrected.	SCR/ Section 4 Indicator 05	OK . CAR is resolved.
CAR 05 In the site visit was not shown control of the water used in the production. Please, correct the indicator 24 in section 4.	SCR/ Section 4 Indicator 24	It was corrected.	SCR/ Section 4 Indicator 24	OK . CAR is resolved.
CAR 06 During the initial visit was evidenced that the wastes are kept in area of the industry with no control over the donations or use of the wastes. Please correct the indicator 26 of section 04. In the Social Carbon Methodology when the wastes are kept into the industry the result for the indicator is 02.	SCR/ Section 04 Indicator 26	It was corrected	SCR/ Section 04 Indicator 26	OK . CAR is resolved.
CAR 07 In the indicator 13, Index results, was not translated the result. Please, correct.	SCR/ Section 04 Indicator 13 and 14	It was corrected.	SCR/ Section 04 Indicator 13 and 14	OK . CAR is resolved.

3.3 Results

CAR/CR	Reference	Summary of project owner response	Revised sections (as applicable)	Conclusion
CR 01 In section 06 (Perspectives), it appears the indication as “not defined”. Please, explain the reason.	SCR/ Section 06	CGM Ceramic's owner had not defined the responsible for implementing the environmental management plan and the date to accomplish such projects Until the diagnostic date .Since it needs qualified man power and a long period of adaptations in the ceramic logistic.	SCR/ Section 06	OK . CR is resolved.

4 Validation conclusion

The conclusions of this report shows that the Zero Point evaluation, as it was described in the project documentation and Social Carbon Report, is in line with all applicable criteria for the validation.

All details of the Indicators are accurate and the calculations are correct. The Social Carbon template and Social Guidelines were used correctly. The characterization of the “Zero Point” for the Gomes de Mattos Ceramic as described in the referenced documents is accurate.

Barueri-SP, 2009-05-22



Plinio Makarowits de Mattos
Validation Team Leader

5 References

Table 5-1: Documents provided by the project proponent

Reference	Document
/PD/	Project Design Document for Gomes de Mattos Ceramic Switching Fuel Project - Version 02 dated May 04th, 2009
/SCR/	Zero Point Gomes de Mattos Social Carbon Report dated April 28th, 2009
/GCS/	Guide for Completing Social Carbon Reports - Version 03, October 2008";
/ICS/	Indicators for Ceramic Industry Sector - Version 07, September 2008
/MSC/	Manual for Registration of Projects in the Social Carbon Registry (SCR) - Version 02, June 2008

Table 5-2: Background investigation and assessment documents

Reference	Document
/AMS-I.E./	AMS-I.E: Switching Biomass for thermal applications by the user, version 01, February 1 st , 2008.
/AMS-I.C./	Category AMS-I.C.: Thermal energy for the user with or without electricity – Version 13, March 14th, 2008.
ISO 14065:2007	Greenhouse gases - Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition
/KP/	Kyoto Protocol (1997)
/CONAMA 279/	Resolution CONAMA 279 (2001) – Environmental National Board

Table 5-3: Websites used

Reference	Link	Organization
-----------	------	--------------

Social Carbon Validation Report Template

Reference	Link	Organization
/CETESB/	http://www.cetesb.sp.gov.br	Companhia de Tecnologia de Saneamento Ambiental
/MCT/	http://www.mct.gov.br	Ministério da Ciência e Tecnologia – Technology and Science Department
/UNFCCC/	http://unfccc.int	United Nations Framework Convention on Climate Change
/SCR/	http://www.socialcarbon.org/	Social Carbon Web Site

Table 5-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Mr. Ronaldo Sampaio Gomes de Mattos – Gomes de Mattos Ceramic owner	▪ Desk review findings ▪ General aspects of the project ▪ Project design, Commissioning and implementation ▪ Technical equipment and operation of the project ▪ Performance of the project ▪ Involved personnel and responsibilities ▪ Training and practice of the operational personnel ▪ Implementation of the monitoring plan ▪ Monitoring and measurement equipment ▪ Data quality, archiving and reporting procedures ▪ Data uncertainty and residual risks
Mr. Heloísa Garcia da Mota Social Carbon	

Table 5-5: List of interviewed people

Reference	Mol ¹		Name	Organization / Function
/IM01/	V	☒ Mr. ☐ Ms.	Ronaldo Sampaio Gomes de Mattos	Gomes de Mattos Ceramic owner
/IM01/	E, V	☐ Mr. ☒ Ms.	Heloísa Garcia da Mota	Social Carbon - Technical Analyst

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

²⁾ Means of Interview: (Telephone, E-Mail, Visit)