



CDM Project Activity Registration and Validation Report Form

(By submitting this form, designated operational entity confirms that the proposed CDM project activity meets all validation and registration requirements and thereby requests its registration)

Section 1: Request for registration

Name of the designated operational entity (DOE) submitting this form	TÜV SÜD Industrie Service GmbH
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	Vinasse Anaerobic Treatment Project - Compañía Licorera de Nicaragua, S. A. (CLNSA)
Project participants (Name(s))	Compañía Licorera de Nicaragua, S. A. (CLNSA) The Netherlands - represented by Corporación Andina de Fomento (CAF)
Sector in which project activity falls	Waste Handling and Disposal (13) Energy Industries (1)
Is the proposed project activity a small-scale activity?	Yes / <u>No</u> (underline as applicable)

Section 2: Validation report

List of documents to be attached to this validation report (please check mark):	
<p>X The CDM-PDD of the project activity</p> <p>X An explanation by the submitting designated operational entity of how it has taken due account of comments on validation requirements received, in accordance with the CDM modalities and procedures, from Parties, stakeholders and UNFCCC accredited non-governmental organizations. This explanation is included in the Validation Report No. 477279</p> <p>X The written approval of voluntary participation from the designated national authority of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development:</p> <p>X Other documents, including any validation protocol used in the validation</p> <ul style="list-style-type: none"> o Validation Report (Validation Report No. 477279) including a validation protocol, information reference list and and a list of persons interviewed by DOE validation team during the validation process. <p>X Information on when and how the above validation report is made publicly available.</p> <p><input type="checkbox"/> Banking information on the payment of the non-reimbursable registration fee</p> <p>X A statement signed by all project participants stipulating the modalities of communicating with the Executive Board and the secretariat in particular with regard to instructions regarding allocations of CERs at issuance</p>	

Executive Summary and Introduction, including

- **Description of the proposed CDM project activity**
- **Scope of validation process (include all documentation that has been reviewed and name persons that have been interviewed as part of the validation, as applicable)**
- **DOE Validation team (list of all persons involved in the validation, describing functions assumed in the validation)**

The project consists of the installation of biodigesting technology in the effluent stream of the alcohol production plant of CLNSA in Chichigalpa, Nicaragua. Methane that would have been otherwise emitted by the use of an open lagoon will be created in biodigesters and will be used for heat and electricity generation. The remaining effluents are used for irrigation and fertilization.

The project started operation in June 2003. It is qualified for retroactive registration.

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 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.

After approval of AM0013 which is based on a new methodology (NM0085) that has been submitted in the context of this specific project activity, TÜV SÜD has been provided with a first PDD version in September 2005. Based on this documentation a document review and a fact finding mission in form of an on-site audit has taken place. This PDD version was made publicly available by the DOE as required by the Marrakech Accords. In September 2006 a revised final PDD has been submitted in which all open issues and clarification requests as documented by this report have been resolved. It serves as the basis for the final evaluation 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 Wastewater treatment in the sugar/alcohol industry
- Ø Business environment in the sugar/alcohol industry
- Ø Energy generation
- Ø Monitoring concepts
- Ø Political, economical and technical 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":

The validation team was consisting of the following two experts:

Werner Betzenbichler	(project manager, GHG lead auditor)	TÜV SÜD
Mauro Fadda	(GHG lead auditor)	TÜV SÜD

Werner Betzenbichler is head of the department Carbon Management Service of TÜV SÜD and head of the “Certification Body for Climate and Energy” and expert for conventional energy generation, renewable energy, energy expansion planning and familiar with the recent version of CDM and JI criteria as necessary for the implementation of Art. 6 and Art. 12 of the KP. Since 2000 he has been working in the international climate change and emission trading business as a verifier.

Mauro Fadda is heading the department “Environmental Services” of ccaQualitas in Santiago de Chile, a local company being member of the TÜV SÜD Group. Having an academic education as bio-chemist is well familiar with the assessment of anaerobic and aerobic treatment of effluents. He has received extensive training in the CDM validation and verification process, is an appointed lead auditor for CDM projects and participated already in numerous CDM project assessments all over South and Central America.

The audit team covers the above mentioned requirements as follows:

- Ø Knowledge of Kyoto Protocol and the Marrakech Accords (Betzenbichler, Fadda)
- Ø Environmental and Social Impact Assessment (Betzenbichler, Fadda)
- Ø Skills in environmental auditing (Betzenbichler, Fadda)
- Ø Waste management (Betzenbichler, Fadda)
- Ø Energy generation (Betzenbichler, Fadda)
- Ø Quality assurance (Betzenbichler, Fadda)
- Ø Technical aspects (Betzenbichler, Fadda)
- Ø Monitoring concepts (Betzenbichler, Fadda)
- Ø Political, economical and technical conditions in the region (Fadda)

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 Javier Castro (deputy head of certification body “climate and energy”)

For further details please refer to the “Introduction” section of the validation report (Validation Report No. 477279).

Description of methodology for carrying out validation

- Review of CDM-PDD and additional documentation attached to it
- Assessment against CDM requirements (e.g. by use of a validation protocol)
- Report of findings by the DOE, e.g. by use of type of findings (e.g. corrective action requests, clarifications or observations). Please explain the way findings are “labelled” during validation.
- Include statements or assessments in the section “Conclusions, final comments and validation opinion” below.

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

Findings established during validation can either be seen as a non fulfilment of validation criteria or where a risk to the fulfilment of the project objectives is identified. Such findings are termed Corrective Action request. The term "Clarification request" is used when the validation team has identified a need for further clarification.

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 of the validation report and documented in more detail in the validation protocol in annex 1 to the validation report. The validation of the project resulted in eight Corrective Action Request and eight Clarification Requests.

For further details please refer to the "Methodology" section of the validation report (Validation No. 477279).

Explanation by the submitting designated operational entity of how it has taken due account of comments on validation requirements received, in accordance with the CDM modalities and procedures, from Parties, stakeholders and UNFCCC accredited non-governmental organizations;

- Description of how and when the PDD was made publicly available
- Description of how comments were received and made publicly available
- Explanation of how due account has been taken of comments received
- Compilation of all comments received (Identify the submitter)

TÜV SÜD published the project documents on UNFCCC website and on its own website by install-ing a link to

http://www.netinform.net/KE/Wegweiser/Guide2.aspx?ID=1283&Ebene1_ID=26&Ebene2_ID=313&mode=1

during the period September 30, 2005 to October 29, 2005.

No comments were received.

Conclusions, final comments and validation opinion

- **Provide conclusions on each requirement under paragraph 37 of the CDM modalities and procedures, describing how these requirements have been met. This shall include assessments and findings (e.g. corrective action requests, clarifications or observations) in relation to each requirement, including a confirmation that all issues raised have been addressed to the satisfaction of the DOE.**
- **Final comments and validation opinion**

TÜV SÜD has performed a validation of the project: Vinasse Anaerobic Treatment Project - Compañía Licorera de Nicaragua, S. A. (CLNSA), 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 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.

The project will reduce methane emission from an open lagoon and CO₂ emission from fossil fuel consumption for generation heat at the project's site and electricity for the Nicaraguan grid by applying biodigesting technology in the effluent stream of an alcohol production plant. 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 operated 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 amount of emission reductions of 1,198,466 tons CO₂e over a crediting period of ten years, resulting in a calculated annual average of 119,847 tons CO₂e, represents a realistic estimation using the assumptions given by the project documents.

The validation is based on the information made available to us and the engagement conditions de-tailed 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.

The DOE declares herewith that in undertaking the validation of this proposed CDM project activity it has no financial interest related to the proposed CDM project activity and that undertaking such a validation does not constitute a conflict of interest which is incompatible with the role of a DOE under the CDM.

By submitting this validation report, the DOE confirms that all validation requirements are met.

Name of authorized officer signing for the DOE

Werner Betzenbichler

Date and signature for the DOE

28-09-06



<i>Section below to be filled by UNFCCC secretariat</i>		
Date when the form is received at UNFCCC secretariat		
Date at which the registration fee has been received		
Date at which registration shall be deemed final		
Date of request for review, if applicable		
Date and number of registration	Date	Number