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	Det Norske Veritas Certification Ltd. (DNV)
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	Nobrecel fuel switch in black liquor boiler in Brazil.
Project participants (Name(s))	Nobrecel S/A Celulose e Papel and EcoSecurities Ltd.
Sector in which project activity falls	Energy Industries & waste handling and disposal.
Is the proposed project activity a small-scale activity?	Yes

Section 2: Validation report	
List of documents to be attached to this validation report (please check mark)*:*	

- ☑ The CDM-PDD of the Project activity
- ☑ 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 (Note: Included in DNV's Validation Report (DNV report No. 2006-0875 - rev. 01);
- ❑ The written approval of voluntary participation from the designated national authority of each Party involved, including confirmation by the host Party hat the project activity assist it in achieving sustainable development:
  - o (Attach a list of all Parties involved and attach the approval (in alphabetic order))
- ☑ Other documents, including any validation protocol used in the validation.
  - o DNV's Validation Report (DNV report No. 2006-0875 - rev. 01), including a validation protocol and a list of persons interviewed by DNV validation team during the validation process.
- ❑ Information on when and how the above validation report is made publicly available.
- ❑ Banking information on the payment of the non-reimbursable registration fee.
- ❑ A statement signed by all project participants stipulating the modalities of communicating with the Executive Border and the secretariat in particular with regard to instructions regarding allocation of CERs at issuance.

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 "Nobrecel fuel switch in black liquor boiler" is located in the Pindamonhangaba city of Sao Paulo State in Brazil.

The project improves the quality of black liquor so that the co-firing of fuel oil decreases. Being a fuel switch project activity with an output capacity of less than 45 MWth, the project meets the criteria to apply the simplified baseline and monitoring methodology AMS-I.C., as defined in Appendix B of the simplified modalities and procedures for small-scale CDM project activities.

The methane avoidance component originally included in this project was using the same technology as the large-scale CDM project "NOBRECEL Biomass energy project". However, this component has been eliminated from this proposed small-scale project. As for the thermal energy component, although both AMS-I.C and ACM0006 (used in the other PDD) belong to sectoral scope 1, the improvements of the black liquor are made to the black liquor boiler, i.e. to a different technology/measure than the biomass boilers included in the large-scale project, in which fuel oil boilers are replaced by a biomass boiler. Hence, the measures to improve the efficiency of the black liquor boiler are not considered to be a debundled component of the proposed large project activity.

The project activity consists of the installation of new equipment that enables an increase in the black-liquor's solid mass concentration, resulting in an increase of its calorific value, thus reducing the need to co-fire fuel oil. More specifically, the pipeline design of the evaporation reservoirs, which are composed by black liquor and steam pipelines, is improved and new pipes are installed so as to allow for a more efficient use of the steam to dry the black liquor.

Additionally, a heat exchanger is installed to further improve the use of steam. Finally, retrofits in the black liquor boiler including modifications to the air, black liquor and water feeding systems are made.

The validation scope is an independent and objective review of the Project Design Document (PDD).

The PDD was reviewed against Kyoto Protocol criteria for the CDM, the CDM modalities and procedures as agreed in the Marrakesh Accords and relevant decision by the CDM Executive Board. The validation team has, based one the recommendation in the IETA/PCF Validation and Verification Manual, employed a risk-based approach, focusing on the identification of significant risks for the project implementation and the generation of CERs.

The following documents were reviewed:

Ecosecurities, Nobrecel fuel switch in black liquor boiler, CDM PDD, Versions 1 25 April 2006 and Version 3 29th August 2006.

EcoSecurities, "Nobrecel, ERs calculation", Excel file, April and June 2006.

EcoSecurities, "Financial analysis", Excel file, May 2006.

EcoSecurities, "Enthalpy", Excel file, May 2006.

International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): Validation and Verification Manual. http://www.vvmanual.info

Appendix B of the simplified modalities and procedures for small-scale CDM project activities: Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, Type I.C, Version 08: 3 March 2006.

The following persons were interviewed:

Francisco Paulo dos Santos – EcoEficiencia Coordinator – Nobrecel S/A Celulose e Papel;

Gilberto Mendonça – Environmental Supervisor – Nobrecel S/A Celulose e Papel;

Bruna Rossi – Operation Annalist – Nobrecel S/A Celulose e Papel;

Ivo de Conto – Forestry Coordinator – Nobrecel S/A Celulose e Papel;

Israel – Account Coordinator – Nobrecel S/A Celulose e Papel.

The validation team consisted of the following personnel:

Mrs Susanne Haefeli-Hestvik	DNV Certification Norway	Team Leader, Technical Reviewer
Mr K.V.Raman	DNV Certification India	GHG auditor
Mr Vicente San Valero	DNV Certification Brazil	GHG auditor
Mr Michael Lehmann	DNV Certification Norway	Energy Sector Expert

For further details, please refer to the "Introduction" and "References" Sections of DNV's Validation Report (DNV Report No. 2006-0875 - rev. 01).

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 consisted of the following three phases:

i) a desk review of the project design documents;

ii) follow-up interviews with project stakeholders and

iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

The original and revised versions of the project design document (PDD) submitted by the project participants were reviewed. Additional background documents related to the project design and the baseline were also consulted.

On 12 June 2006, DNV performed interviews with project stakeholders to confirm selected information and to resolve issues identified during the document review.

In order to ensure transparency, a validation protocol has been customized for the project, according to the Validation ad Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validation the identified criteria.

Findings established during the validation can either be seen as a non- fulfilment of validation criteria or where a risk to the fulfilment of project objectives is identified. Such findings are termed *corrective action requests* (CARs). The term *clarification* (CL) may be used where additional information is needed to fully clarify an issue. The *corrective action requests* and requests for *clarification* raised by the validation team were resolved through communications with the project participants. To guarantee the transparency of the validation process, the concerns raised by DNV and the response provided by the project participants are documented in Table 3 of the Validation Protocol in Appendix A of DNV's Validation Report. (DNV Report No. 2006-0875 - rev. 01).

For further details, please refer to the "Methodology" Section of DNV's Validation Report (DNV Report No. 2006-0875 - rev. 01) and the IETA/PCF Validation ad Verification Manual (www.vvmanual.info)

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)**

The PDD of 25th April 2006 was made publicly available on DNV's climate change website (www.dnv.com/certification/climatechange) and Parties, stakeholders and NGOs were through the CDM website invited to provide comments during a 30 days period from 06/05/2006 to 04/06/2006. One comment was submitted.

The comment received and how DNV has taken due account of the comment received are documented in the "Comments by Parties, stakeholders and NGO's" Section of DNV's Validation Report (DNV report 2006-0875 - rev. 01).

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 meet. 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**

Det Norske Veritas Certification Ltd. (DNV) has performed a validation of the "Nobrecel fuel switch in black liquor boiler" in Brazil. The validation was performed on the basis of UNFCCC criteria for the Clean Development Mechanism and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project participants are Nobrecel S/A Celulose e Papel and EcoSecurities Ltd. Brazil and the United Kingdom meet the requirements to participate in the CDM.

The project improves the quality of black liquor so that the co-firing of fuel oil decreases.

By displacing fuel oil based energy, the project is in line with the current sustainable development priorities of Brazil.

Being a fuel switch project activity with an output capacity of less than 45 MWth, the project meets the criteria to apply the simplified baseline and monitoring methodology AMS-I.C., as defined in Appendix B of the simplified modalities and procedures for small-scale CDM project activities.

Baseline emissions are determined based on the historic fuel oil consumption per MWh steam output. The additionality of the project is demonstrated through a barrier test. The presented barriers demonstrate that the project is not a likely baseline scenario.

The monitoring plan sufficiently specifies the monitoring requirements. Data monitoring procedures are sufficiently implemented to guarantee the verifiability of the emission reductions. By displacing fuel oil based energy, the project thus results in reductions of CO2 emissions that are real, measurable and give long-term benefits to the mitigation of climate change. Given that the project is already operating as designed, the project is likely to achieve the estimated amount of emission reductions.

In summary, it is DNV's opinion that the project as described in the revised and resubmitted project design document of 29 August 2006 meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology AMS-I.C. (version 8). Hence, DNV will request the registration of the" Nobrecel fuel switch in black liquor boiler" as a CDM project activity.

For further details, please refer to the "Validation Findings" Section and Table 1 of the Validation Protocol in Appendix A of DNV's Validation Report (DNV Report No. 2006-0875 - rev. 01).			
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.	Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written approval of the DNA of Brazil and the United Kingdom, including the confirmation by the DNA of Brazil that the project assists in achieving sustainable development.		
Name of authorized officer signing for the DOE	Michael Lehmann		
Date and signature for the DOE	28 September 2006		
Section below to be filled by UNFCCC secretariat			
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