



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	Ramirana Emission Reduction Project of Agrícola Super Limitada
Project participants (Name(s))	Agrícola Super Limitada
Sector in which project activity falls	Sectoral scope 13: Waste management and handling Sectoral scope 15: Agriculture
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):	
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> The CDM-PDD of the project activity <input checked="" type="checkbox"/> 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. 2005-1108, rev. 01)) <input checked="" type="checkbox"/> 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: <ul style="list-style-type: none"> ○ Letter of Approval by the DNA of Chile dated 6 June 2006 <input checked="" type="checkbox"/> Other documents, including any validation protocol used in the validation <ul style="list-style-type: none"> ○ DNV's Validation Report (DNV Report No. 2005-1108, rev. 01), including a validation protocol and a list of persons interviewed by DNV during the validation process and including an explanation of how DNV has taken due account of comments on validation requirements received. <input checked="" type="checkbox"/> Information on when and how the above validation report is made publicly available. <input checked="" type="checkbox"/> Banking information on the payment of the non-reimbursable registration fee <input checked="" type="checkbox"/> 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. 	

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 “Ramirana Emission Reduction Project of Agrícola Super Limitada” involves the implementation of an advanced manure treatment system at Agrosuper’s swine farm Ramirana. The project is located in VI Region, named as Libertador Bernardo O’Higgins, Province of Cachapual, in the community of Graneros. The advanced swine manure treatment system comprises anaerobic digestion in an ambient temperature digester (anaerobic digester) and a dissolved air flotation solid-separation unit with aerobic treatment (activated sludge treatment). The project is implemented in two phases: i) the implementation of an anaerobic digester and subsequently ii) the implementation of the activated sludge treatment system. Construction of the anaerobic digester started in February 2002.

The expected result from this project activity will be the reduction in the volume of methane (CH₄) and nitrous oxide (N₂O) emissions compared to the emissions that would otherwise occur in a scenario with traditional swine manure treatment systems (baseline scenario). The project is expected to abate CH₄ and N₂O emissions to the extent of 410 790 tCO₂e over a 7-year crediting period. The average emission reductions are expected to be 58 684 tCO₂e per year.

The validation scope is an independent and objective review of the Project Design Document (PDD). The PDD was reviewed against the criteria stated in Article 12 of the Kyoto Protocol criteria for the CDM, the CDM modalities and procedures as agreed in the Marrakech Accords and relevant decision by the CDM Executive Board. The validation team has, based on the recommendation in the IETA/PCF Validation and Verification Manual, and 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:

Agrícola Super Limitada., Poch Ambiental S.A., Urquidi, Riesco & CIA: CDM PDD for “Advanced swine manure treatment in Ramirana”. Version 02 of 9 August 2005.

Agrícola Super Limitada., Poch Ambiental S.A., Urquidi, Riesco & CIA: CDM PDD for “Ramirana Emission Reduction Project of Agrícola Super Limitada”. Version 03 of 11 April 2006.

Agrícola Super Limitada., Poch Ambiental S.A., Urquidi, Riesco & CIA: Supporting Excel spreadsheets on financial and emission calculations for Ramirana submitted to DNV on 13 September 2005.

Agrícola Super Limitada., Poch Ambiental S.A., Urquidi, Riesco & CIA: Excel spreadsheet including a monitoring plan for ensuring proper flare performance submitted to DNV on 20 October 2005.

CONAMA (DNA of Chile): Letter of Approval, 6 June 2006

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

CDM Executive Board: Approved baseline / monitoring methodology AM0006. GHG emission reductions from manure management systems.

IPCC: Good Practise Guidance and Uncertainty Management in National Greenhouse Gas Inventories. <http://www.ipcc.ch/>

IPCC: Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. <http://www.ipcc.ch/>

US EPA: Development Document for the Proposed Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding

Operations. January 2001.

The following persons were interviewed:

Agrícola Super Limitada

- Carlos Andrés Vives, Environmental Manager
- Hernán Vidal, Responsible for operation of the facilities
- Freddy Abarca, Maintenance manager.
- Luis Aravena, Senior consultant.
- Manuel Jiménez, Manager

Urquidi, Riesco & Compañía

- Sergio Vives P.

POCH Ambiental S.A.

- Alfonso Guijón, Engineer

The validation team consisted of the following personnel:

Ms Cintia Dias	DNV Rio, Brazil	Team Leader, CDM auditor
Mr Michael Lehmann	DNV Oslo, Norway	Technical reviewer
Mr Kumaraswamy C	DNV Bangalore, India	CDM auditor
Mr Luis Filipe Tavares	DNV Rio, Brazil	Waste management expert

For further details, please refer to the "Introduction" and "References" Sections of DNV's Validation Report (DNV Report No. 2005-1108, 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, baseline and monitoring plan
- ii) follow-up interview with project stakeholders
- iii) the resolution of outstanding issues and the issuance of the validation report and opinion

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

On 12-13 October 2005 DNV performed interviews with representatives of Agrosuper, Poch Ambiental and Urquidi, Riesco & Cía Abogados to confirm and resolve issues identified in the document review and visited Ramirana.

In order to ensure transparency, a validation protocol has been customized 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 validation of 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 (CAR). The term Clarification may be used where additional information is needed

to fully clarify an issue. The Corrective Action Requests and requests for Clarification raised by DNV were resolved through communication 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. 2005-1108, rev. 01).

For further details, please refer to the "Methodology" Section of DNV's Validation Report (DNV Report No. 2005-1108, rev. 01) and the IETA/PCF Validation and 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 (Version 02 of 9 August 2005) was made publicly available on www.dnv.com/certification/climatechange and Parties, stakeholders and NGOs were through the CDM website invited to provide comments during the period 18 August to 16 September 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

Det Norske Veritas Certification Ltd. (DNV) has performed a validation of the "Ramirana Emission Reduction Project of Agrícola Super Limitada" in Chile. The validation was performed on the basis of UNFCCC criteria for CDM project activities as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project proposes the implementation of advanced waste management systems, i.e. ambient anaerobic digestion of swine manure followed by aerobic treatment in a dissolved air flotation solid-separation unit (activated sludge treatment), at the swine farm Ramirana.

The project participant is Agrícola Super Limitada (Agrosuper) of Chile. The host Party Chile meets all relevant participation requirements. No participating Annex I Party is yet identified. The DNA of Chile has provided approval of voluntary participation in the project and has confirmed that the project assists in achieving sustainable development.

The project applies the approved baseline methodology "GHG emission reduction from manure management systems" (AM0006). The baseline methodology has been applied correctly and the assumptions made for the selected baseline scenario are sound. Based on an assessment of legal constraints, historical practice of manure management and availability of waste treatment technologies, it has been established that treatment of swine manure in anaerobic lagoons is the most attractive course of action and the prevailing practice and therefore the baseline scenario. It is sufficiently demonstrated that the project is not a likely baseline scenario and that emission

reductions attributable to the project are additional to any that would occur in absence of the project activity.

The expected result from the project will be the reduction in the volume of methane (CH₄) and nitrous oxide (N₂O) emissions compared to the emissions that would otherwise occur in the baseline scenario. The project is expected to abate 58 684 tCO₂e per year over the first 7 years crediting period.

The monitoring methodology AM0006 is correctly applied, and the monitoring plan sufficiently specifies the monitoring requirements of the main project indicators.

The project is not expected to have considerable environmental impacts. Chilean legislation does not require any Environment Impact Assessment to be carried out for the implementation of an anaerobic digester and an activated sludge treatment system at existing facilities.

In summary, it is DNV's opinion that the project, as described in the project design document of 11 April 2006, meets all relevant UNFCCC requirements for the CDM and correctly applies the approved baseline and monitoring methodology AM0006. Hence, DNV requests the registration of the "Ramirana Emission Reduction Project of Agrícola Super Limitada" 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. 2005-1108, 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.

Name of authorized officer signing for the DOE Michael Lehmann

Date and signature for the DOE

08 June 2006

Michael Lehmann

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