



### 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

<b>Name of the designated operational entity (DOE) submitting this form</b>	Det Norske Veritas Certification Ltd. (DNV)
<b>Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration</b>	Anaconda Landfill Gas Project
<b>Project participants (Name(s))</b>	Anaconda Ambiental Empreendimentos Ltda.(Brazil) Araúna Investimentos e Participações Ltda (Brazil) Brasmetano Indústria e Comércio Ltda(Brazil)
<b>Sector in which project activity falls</b>	Waste handling and disposal
<b>Is the proposed project activity a small-scale activity?</b>	No

#### Section 2: Validation report

<b>List of documents to be attached to this validation report (please check mark):</b>	
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> The CDM-PDD of the Project activity</li> <li><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 2005-0459, rev. 05a));</li> <li><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 assist it in achieving sustainable development: <ul style="list-style-type: none"> <li>○ (Attach a list of all Parties involved and attach the approval(in alphabetic order))</li> </ul> </li> <li><input checked="" type="checkbox"/> Other documents, including any validation protocol used in the validation. <ul style="list-style-type: none"> <li>○ DNV's Validation Report (DNV report 2005-0459, rev. 05a), including a validation protocol and a list of person interviewed by DNV validation team during the validation process.</li> </ul> </li> <li><input checked="" type="checkbox"/> Information on when and how the above validation report is made publicly available.</li> <li><input checked="" type="checkbox"/> Banking information on the payment of the non-reimbursable registration fee.</li> <li><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 allocation of CERs at issuance.</li> </ul>	

### **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 Anaconda landfill at Santa Isabel, São Paulo State, Brazil, started operation in 2000 and it is expected to be closed in 2030. The landfill receives an average of 419 tonnes/day of waste, resulting in 152 935 tonnes/year. Up to 2006, landfill gas (LFG) will be collected only through a passive system, and the collected LFG will be vented and occasionally flared at the head of the wells for safety and odour control. The “Anaconda Landfill Gas Project” plans to install a LFG collection and flaring system. The forecasted operational lifetime of the Anaconda Landfill Gas Project is 21 years and the project applies for a renewable crediting period of 7 years starting on 01 December 2006.

By connecting the existing vertical drains and by flaring the collected landfill gas, the project is expected to increase the LFG collection efficiency to 75% and to flare all LFG collected. The estimated amount of GHG reduction from the project is 842 960 tonnes of CO<sub>2</sub>e during the first renewable crediting period of 7 years starting on 01 December 2006 (120 423 tonnes of CO<sub>2</sub>e per year on the average).

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords, the simplified modalities and procedures for small-scale CDM project activities and the relevant decisions by the CDM Executive Board. The validation team has, based on 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:

Anaconda Landfill Gas Project PDD, version 1 - April 2005  
 Anaconda Landfill Gas Project PDD, version 2 - May 2005  
 Anaconda Landfill Gas Project PDD, version 3 - September 2005  
 Anaconda Landfill Gas Project PDD, version 3B – 16 December 2005  
 Anaconda Landfill Gas Project PDD, version 4 – 11 April 2006  
 Anaconda Landfill Gas Project PDD, version 5 – 2 June 2006  
 Araúna and Anaconda Ambiental S/A: Datasheet to calculate the Baseline and Project Emissions, Excel spreadsheets, September 2005  
 Araúna and Anaconda Ambiental Ltda: Spreadsheet for Calculation of Combined Margin (ONS Emission Factor SSEC0 2002-2004 v 2005-11-29.xls)  
 Comissão Interministerial de Mudança Global do Clima (DNA of Brazil): Letter of Approval. 18 July 2006  
 Approved Baseline Methodology ACM0001: “Consolidated baseline methodology for landfill gas projects activities”. Version 03 of 19 May 2006  
 Approved Monitoring Methodology ACM0001: “Consolidated monitoring methodology for landfill gas projects activities”. Version 03 of 19 May 2006  
 Approved Methodology ACM0002: “Consolidated baseline methodology for grid-connected electricity generation from renewable sources. Version 06 of 19 May 2006.  
 International Emissions Trading Association (IETA) & the World Bank’s Prototype Carbon Fund (PCF): Validation and Verification Manual. Available at <http://www.vvmanual.info>.

The following persons were interviewed:

Nino Sérgio Bottini – Araúna Participações e Investimentos Ltda  
 Maurício Maruca – Araúna Participações e Investimentos Ltda.  
 Larry Stuber - Herjack Engenharia e Serviços Ltda

The validation team consist of the following personnel:

Ms Cintia Dias	DNV Rio de Janeiro
Mr Luis Filipe Aboim Tavares	DNV Rio de Janeiro
Mr Michael Lehmann	DNV Oslo

For further details, please refer to the "Introduction" Section of DNV's Validation Report (DNV report 2005-0459, rev 04).

### 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:

- a desk review of the project design documents;
- follow-up interview with Project stakeholders;
- the resolution of outstanding issues and the issuance of validation report and opinion.

The initial PDD (version 01 of April 2005) /1/, the revised PDD (version 02 of May 2005) /2/ and the PDD (version 03 of September 2005) /3/ submitted by Araúna were assessed by DNV. A further revised version 03 B of PDD/4/ was submitted on 16 December 2005, in which the combined margin emission factor was recalculated based on the plant efficiencies recommended by the CDM Executive Board at its 22nd meeting, and finally a PDD version 4 submit include a new project participant

On 24 May 2005, DNV performed interviews with representatives of Araúna and Anaconda Landfill to confirm and to resolve issues identified in the document review.

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 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 validation of the project identified four (4) Corrective Action Requests and two (2) requests for Clarification. These requests were presented to the project participants in DNV's draft validation report of 23 May 2005 (Report No. 2005-0459 rev. 0). Additional information provided by the project participants resolved these requests to DNV's full satisfaction.

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 to DNV's Validation Report (Report No. 2005-0459 rev. 05a).

For further details, please refer to the "Methodology" Section of DNV's Validation Report (DNV report 2005-0459, rev. 05a) and the IETA/PCF Validation and Verification Manual ([www.vvmanual.info](http://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 April 2005 was made publicly available on [www.dnv.com/certification/climatechange](http://www.dnv.com/certification/climatechange) and Parties, stakeholders and NGOs were through the CDM website invited to provide comments during the period 30 April 2005 to 30 May 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 “Anaconda Landfill Gas Project”, in Brazil. The validation was performed on the basis of UNFCCC criteria for CDM project activities and relevant Brazilian criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project participants are Anaconda Ambiental Empreendimentos Ltda. of Brazil and Araúna Investimentos e Participações Ltda of Brazil and Brasmetano Indústria e Comércio Ltda. of Brazil. The host Party is Brazil. No Annex I Party has yet been identified. Brazil meets all relevant participation requirements and has provided written approval of voluntary participation in the project.

The project proposes collection and combustion or flaring of the landfill gas (LFG) captured at the Anaconda Landfill. By flaring landfill gas, the project results in the reduction of CH<sub>4</sub> emissions that are real, measurable and give long-term benefits and that are additional to what would have occurred in the absence of the project. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions.

The project is not expected to have considerable environmental impacts and the landfill has received an environmental licence by CETESB.

The project applies the baseline and monitoring methodology ACM0001: “Consolidated baseline methodology for landfill gas projects activities”. The baseline methodology has been correctly applied and the assumptions made for the selected baseline scenario are sound. 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 monitoring plan sufficiently specifies the monitoring requirements of the main project indicators.

Local stakeholders’ comments were invited according Brazilian DNA Resolution 1.

In summary, it is DNV’s opinion that the “Anaconda Landfill Gas Project” in Brazil, as described in the PDD of 02 June 2006, meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology ACM0001. Hence, DNV will request the registration of the “Anaconda Landfill Gas Project” as 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 2005-0459, rev. 05a).

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	9 August 2006 <i>Michael Lehmann</i>	
<b>Section below to be filled by UNFCCC secretariat</b>		
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