



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.1 of the attached CDM-PDD) submitted for registration	Blended cement with increased blend" at Orient cement's Devapur and Jalgaon plants in India
Project participants (Name(s))	Orient Cement (Props:Orient Paper & Industries Limited)
Sector in which project activity falls	Sectoral Scope Nr. 04: Manufacturing industries
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):	
<div style="margin-left: 20px;"> <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; <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: <div style="margin-left: 40px;"> <input type="checkbox"/> (Attach a list of all Parties involved and attach the approval (in alphabetical order)) </div> <input checked="" type="checkbox"/> Other documents, including any validation protocol used in the validation <div style="margin-left: 40px;"> <input type="checkbox"/> Validation Report including a validation protocol and a list of persons interviewed by the validation team during the validation process </div> <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. </div>	
Executive Summary and Introduction, including <ul style="list-style-type: none"> 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)**

Description of the proposed CDM project activity:

The project activity proposed by M/s Orient Cement (Props: Orient Paper & Industries Limited) at their two cement manufacturing units, the Devapur unit in Andhra Pradesh state and the Jalgaon unit in Maharashtra state, India. The project involves optimisation of clinker through the additional use of fly ash as an additive in the manufacture of Portland Pozzolana Cement. This is beyond current practices in the region selected, which is Andhra Pradesh and Maharashtra state. This increase in blending of fly ash will reduce the clinker requirement resulting in reduction of fossil fuel consumption for clinker manufacturing. The project also contributes in reducing environmental effects due to mining of limestone used for clinker manufacturing. The total estimated emission reduction due to the project activity is approximately 83 208t of CO₂ e per year.

Scope of validation process:

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 and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology ACM0005 version-02. The validation team has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach, focusing on the identification of significant risk for project implementation and the generation of CERs.

The following documents were reviewed:

- ☒ "Blended cement with increased blend" at Orient cement's Devapur and Jalgaon plants in India", Project Design Document, version 02, dated 5th November 2005 and version 03 dated 10th February 2006.
- ☒ DNA of India, Host country approval letter dated 12th April 2006.
- ☒ Detailed Base line calculation excel sheet.
- ☒ International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): *Validation and Verification Manual*. <http://www.vvmanual.info>
- ☒ ACM0005 Approved methodology Version 02 – Consolidated baseline Methodology for Increasing the Blend in Cement production

The following persons were interviewed:

M/s. Orient Cements:

- ☒ Mr. M.L. Pachisia – Managing Director.
- ☒ Mr. Bhagwat Pandey – Executive Vice President
- ☒ Mr. S.C. Bhanot - Vice president (Operations)
- ☒ Mr. H.B.S Parihar - Asst. Vice President – Jalgaon Unit
- ☒ Mr. A.K.Tiwari - Senior Manager Devapur Unit
- ☒ Mr. V.V.Srinivas Kumar – Sr. Engineer Devapur Unit

The validation team consists of the following personnel:

Chandrasekhara Kumaraswamy	DNV India	Team Leader, GHG auditor
Vidyacharan Astakala	DNV India	GHG auditor
Santhosh Jayaram	DNV India	GHG auditor, sector expert
Subhendu Biswas	DNV India	Internal Reviewer.
Einar Telnes	DNV Oslo	Technical reviewer

For further details, please refer to the "Introduction" and "References" Section of DNV's Validation Report (DNV Report 2005-9024, rev. 02).

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 documentation
- 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.

In the period of 04th - 05th December 2005, DNV performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Orient Cement were interviewed.

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 the DNV's Validation Report.

For further details, please refer to the "Methodology" Section of DNV's Validation Report (DNV Report 2005-9024, rev. 02) 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 of 05th November 2005 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 8th November 2005 to 7th December 2005. No comment was received during the period.

Please refer to the "Comments by Parties, Stakeholders and NGOs" Section of DNV's Validation Report (DNV Report 2005-9024, rev. 02) and the above mentioned CDM website.

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 "Blended cement with increased blend" at Orient cement's Devapur and Jalgaon plants in India". 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 review of the project design documentation and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

The project has been proposed as a unilateral project by Orient Cement. India as the host country meets the relevant participation requirements for the CDM and has approved its voluntary participation in the project. The DNA of India has confirmed that the project assists in achieving sustainable development.

The project activity reduces clinker production and associated GHG emissions by displacing clinker with fly ash in the production of Pozzolona Portland Cement. Emissions arising from the calcination of limestone and fossil-fuel based process energy will be reduced. By increasing percentage of fly ash in the cement production, the project results in reduction of CO₂ emissions that are real, measurable and gives long-term benefits to the mitigation of climate change. An analysis of relevant barriers demonstrates that the proposed project is not a likely baseline scenario and emission reductions are hence additional to any that would occur in its absence.

The project correctly applies the approved baseline methodology ACM0005 version-02 "Consolidated Baseline Methodology for increasing the Blend in Cement Production". The baseline has been selected by determining the common prevailing clinker percentage of PPC in other manufacturing plants in the selected region that use similar raw material as the project and which face similar economic, market and technological circumstances.

In summary, it is DNV's opinion that the "Blended cement with increased blend" at Orient cement's Devapur and Jalgaon plants in India", as described in the PDD version 3 of 10th February 2006, meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology ACM0005 version-02 . DNV thus requests the registration of the project as a CDM project activity.

For further details, please refer to DNV's Validation Report (DNV Report 2005-9024, rev. 02).

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.

Susanne Haefeli

Name of authorized officer signing for the DOE

Date and signature for the DOE

06 June 2006



1.1.1.1 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