

Annex 4 - Validation Protocol

This validation protocol is designed to ensure that the project meets the requirements for CDM projects that are detailed in paragraph 37 of the CDM modalities and procedures. Each requirement is covered in a separate table. The following requirements are discussed in this protocol:

Requirement	Description	
Participation requirements	The participation requirements as set out in Decision 17/CP7 need to be satisfied	Covered in table 1
Baseline and monitoring methodology	The baseline and monitoring methodology complies with the requirements pertaining to a methodology previously approved by the Executive Board	Baseline methodology is covered in table 2 Monitoring methodology is covered in table 4
Additionality	The project activity is expected to result in a reduction in anthropogenic emissions by sources of greenhouse gases that are additional to any that would occur in the absence of the proposed project activity	Covered in table 3
Monitoring plan	Provisions for monitoring, verification and reporting are in accordance with relevant decisions of the COP/MOP	Covered in table 5
Environmental impacts	Project participants have submitted to the designated operational entity documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts and, if those impacts are considered significant by the project participants or the host Party, have undertaken an environmental impact assessment in accordance with procedures as required by the host Party;	Covered in table 6
Comments by local stakeholders	Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the designated	Covered in Table 7

operational entity on how due account was taken of any comments has been received;

Other requirements The project activity conforms to all other requirements for CDM project activities in relevant decisions by the COP/MOP and the Executive Board. Covered in Table 8

Small sale projects and AR projects have specific requirements, which are covered in Table 9-11. Small scale SSC projects have special requirements, which might deviate from the requirements of other CDM projects. These requirements are tested in table 9. Please note that some questions in table 9 overlap with questions in the other tables. Where the questions in table 9 contradict or overlap questions elsewhere in the checklist, the questions in table 9 shall prevail. For the validation of small scale projects, assessor is required to address the questions in table 9 first before starting with the questions in the other tables.

Further remarks on the use of this document:

- text in *italic blue* is meant as guidance for the assessor
- MoV = Means of Verification, DR= Document Review, I= Interview

This protocol should be adapted as required. For example, if the project is not a small scale project or an AR project, some tables can be deleted.

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website) All CDM project activities

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	DR	PDD	No annex 1 in this project.	Ok	Ok

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	DR	PDD	No Letter of Approval by host country (Brazil) has been submitted to the validator. The Brazilian letter of approval is obtained after the validation of the project. The Letter of Approval was issued on 25 October 2006.	Send validation report to DNA.	
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	DR	PDD	Yes, Brazil – date of ratification 23-August-2002	Ok	Ok
1.4 The project results in reductions of GHG emissions or increases in sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario	DR	PDD	Yes.	Ok	Ok
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available	DR	UNF CCC site	PDD publicly available: 16 Nov 05 until 15 Dec 05 http://cdm.unfccc.int/Projects/Validation/DB/EFB16UVHIH YCCWWK2RIFU6RI6SU52K/view.html No comments were received.	Ok	Ok
1.6 The project has correctly completed a Project Design Document, using the	DR	PDD	No. See CAR 4 details under item 8.1.1 of this checklist.	CAR 4	Ok

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
current version and exactly following the guidance					
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	DR/I	PDD	To be confirmed by local assessor. The project does not make use of ODA.	Verify	Ok
1.8 For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?			N/A		
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects			N/A		
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment.	DR	PDD	See CAR 4 regarding the template first page.	CAR 04	Ok
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?	DR/ site visit	PDD	Yes. Details about the installation to be confirmed by local assessor. The information used could be verified from the documents and spreadsheets provided during the site visit (see	Verify	Ok

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
			references) and from information available in the internet (www.snic.com.br ; www.abcp.org.br).		

Table 2 Baseline methodology (ies) (Ref: PDD Section B and E and Annex 3 and AM) Normal CDM projects only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.1 Does the project meet all the applicability criteria listed in the methodology	PDD ACM 0005	DR	Verify if the blended cement is commercialized for exportation. According to “cement companies annual report” (website), the companies produce 34 millions tones and export approximately 500,000 t; in 2005 they produced 36 millions tones and export approximately 1 million tone.	Verify	Ok
2.2 Is the project boundary consistent with the approved methodology	PDD ACM 0005	DR	Yes. Only CO2 is considered. The boundary includes 6 cement production plants of Votorantim group.	Ok	Ok
2.3 Are the baseline emissions determined in accordance with the methodology described	PDD ACM 0005	DR	Yes. The project selected 2 credible and plausible alternatives and as a conservative assumption, uses the alternative baseline scenario that results in the lowest baseline emissions. Formulas required by the methodology were applied	Ok	Ok
2.4 Are the project emissions determined in accordance with the methodology described	PDD ACM 0005	DR	Yes. It was described in the PDD, section B.2. Formulas required by the methodology were applied Project activity emissions per tonne of blended cement	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<p>produced (equation 5).</p> <p>According to ACM0005, version 3, if additional additives used in the project activity needs drying, the fuel combustion used in the drying process shall be accounted. Drying process is being accounted as project emission. The slag is dried in the CUB, VR, SH plants. Verified the worksheet (drying) that consider the total of blast slag furnace used and the emission factor for each combustion used to dry the slag.</p>		
2.5 Is the leakage of the project activity determined in accordance with the methodology described	PDD ACM 0005	DR	<p>Yes. The methodology described three potential leakage:</p> <p>Leakage 1: Emissions due to fuel use for the transport of raw materials and fuels from offsite locations to the project plant are likely to decrease due to the implementation of the project. In order to be conservative, it was not included in the calculations.</p> <p>Leakage 2: Emissions due to fuel use for the transport of additives from offsite locations to the project plant are likely to increase. They are accounted as leakage and the formulas presented in the PDD are in accordance with the methodology.</p> <p>Leakage 3: The methodology defines that another possible leakage is due to the diversion of additives from existing uses. As the slag used is surplus, it is expected that this source of leakage will not affect calculations. This is not applicable to the project.</p>	Ok	Ok
2.6 Are the emission reductions determined in accordance with the methodology described	PDD ACM 0005	DR	<p>Yes.</p> <p>It was described in the PDD, section B.2, equation 4.</p>	Ok	Ok

Table 3 Additionality (Ref: PDD Section B3 and AM) Normal CDM projects only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.1 Does the PDD follow all the steps required in the methodology to determine the additionality	PDD ACM 0005	DR	<p>Yes, they used the “Tool for the demonstration and assessment of additionality” (version 2).</p> <p>Step 0: verified evidence that the implementations of project activity started in September/2000. The date represents the installation of the first new mill in SAL, Mill#Z7, the equipment were verified during site visit and purchase document. To demonstrate that CDM incentive was seriously considered, Votorantim is signatory of the “Cement Sustainability Initiative” since 1999 and one of the initiatives is the climate protection, responsible use of fuels and raw materials, emissions reductions. During validation assessment this information was confirmed by interviews and checking the websites (www.wbcscement.org and www.votoran.com.br)</p> <p>Step 1: five alternatives were identified and discussed under the barriers analysis (Step 3).</p> <p>Step 2: Investment analysis is not undertaken</p> <p>Step 3: Barrier analysis discusses how the seven barriers would prevent the implementation of the project .</p> <p>Step 4: there is no information about any other activity implemented previously or currently underway that is similar to the proposed project activity.</p> <p>Step 5: it was concluded that the registration of this project activity in the CDM will add positive value to the company.</p>	Ok	Ok
3.2 Is the discussion on the	PDD	DR	The barriers presented need to be confirmed by local	NIR 6	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
<p>additionality clear and have all assumptions been supported by transparent and documented evidence</p>	ACM 0005		<p>assessor. Information provided in the PDD need clarification:</p> <p>Barrier 1: Why is difficult to obtain debt funding for this type of project activity. Provide more information, data.</p> <p>It was discussed that the barrier 1 was not a significant barrier among the set of seven barriers presented, as Votorantim is a large economic group and would not face many difficult to have access to debt funding. Barrier 2 is part of the economic context of Brazil: the attractiveness of the capital market. The most important barriers faced by the project activity are barriers 3, 4, 5 and 7.</p> <p>It was verified that the production process had to be adapted for implementation of the project activity. New equipment was installed specifically for the use of slag, as verified on site and by purchase documents (new dryer of slag, new mills, field instruments and auxiliary equipment). Improvements in controls and logistics were also verified on-site. A system and infrastructure to regularize the supplying and transport of slag were implanted. Long term slag purchase agreements were signed between Votorantim and slag suppliers (verified contract between Votorantim and Cosipa (slag supplier), signed on 1 May 2001).</p> <p>New procedures were needed because of the use of the blast furnace slag in the cement production. The documents were checked on-site and the staff and operators were interviewed (Procedures: <i>Inspeção seletiva secador de escória Hazemag, Segurança na troca de revestimento revolvedor, Destruir eixos do secador de escória, limpeza do secador</i>). In addition, the</p>		

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			internal quality plan was updated to cover the use of slag in the production (Quality plan PDO01298 rev06, PD00938 rev07). NIR 6 was closed out.		
3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD ACM 0005	DR	Yes. It was presented alternative scenarios, and in the table 5 it was discussed the effect of barrier in each one. Alternative 3 was selected as the most likely baseline scenario. In this scenario, the mills increase the use of blast furnace slag and/or other additives in a pre-defined rate, lower than the project activity rate.	Ok	Ok
3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	PDD ACM 0005	DR	The barriers analysis demonstrated that the proposed project activity (scenario 1) faced barriers that prevent the implementation of this type of project activity; and do not prevent the implementation of other alternatives (scenarios 2 and 3). As verified during the site visit, slag has been used in the Votorantim before the project, but in a low proportion of the total. The use of slag increase as result of the project implementation.	Ok	Ok

Table 4 Monitoring methodology (PDD Section D and AM) Normal CDM Projects only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
4.1 Does the project meet all the	PDD	DR	Yes. It was verified that the project uses blast slag	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
applicability criteria listed in the monitoring methodology	ACM 0005		furnace with clinker and follow all applicability conditions.		
4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology	PDD ACM 0005	DR	Monitoring is not in accordance with the methodology (units, collection of data). Section D of the PDD was revised to comply with the methodology requirements. CAR 1 has been closed out.	CAR 1	Ok
4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology	PDD ACM 0005	DR	See CAR 1	CAR 1	Ok
4.4 Does the PDD provide for the monitoring of the leakage as required in the monitoring methodology	PDD ACM 0005	DR	See above	CAR 1	Ok
4.5 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology	PDD ACM 0005	DR	Yes. In addition, the company has maintenance and operations procedures, which include the monitoring of process variables, instruments calibration and quality control, according to company policies, engineering best practices, ISO9000 and ISO14000 certification. For this reason, no major changes in monitoring and QA/QC procedures will be required for the CDM project activity related variables and parameters.	Ok	Ok

Table 5 Monitoring plan (PDD Annex 4) Normal CDM Project activities only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1 Monitoring of Sustainable Development Indicators/ Environmental Impacts	PDD	DR	<p>There is no information about monitoring of social and environmental indicators.</p> <p>During the site visit, it was verified that Votorantim Cimentos has a corporate environmental performance indicator that measures the evolution of several environmental aspects in the operations of the plants, including those ones affected by the project activity. The environmental performance indicator is called IDA. There is also an environmental management system implemented in the plants (some units are ISO 14000 certified).</p> <p>The incomes from the CDM will indirectly support and stimulate Votorantim Cimentos in keeping and improving its social programs. (www.votorantim-cimentos.com/responsabilidade/principais_acoes.shtml)</p> <p>CAR 2 has been closed out.</p>	CAR 2	Ok
5.1.1 Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	PDD	DR	Section A.2 of the PDD described how the project activity contributes to sustainable development, but did not mention any monitoring plan to collect and archive relevant data. See CAR 2 close-out details.	See 5.1 CAR 2	Ok
5.1.2 Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?	PDD	DR	<p>See above</p> <p>See CAR 2 close out details.</p>	See 5.1	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1.3 Will it be possible to monitor the specified sustainable development indicators?	PDD	DR	See above. See CAR 2 close out details.	See 5.1	Ok
5.1.4 Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD	DR	See above. See CAR 2 close out details.	See 5.1	Ok
5.2 Project Management Planning	PDD	DR/I	To be confirmed by local assessor. Yes. The company has maintenance and operations procedures, which include the monitoring of process variables, meters calibration and quality control, according to company policies, engineering best practices. Some plants are ISO9000 and ISO14000 certified..	Verify	Ok
5.2.1 Is the authority and responsibility of project management clearly described?	PDD	DR/I	To be confirmed by local assessor. It was verified that the project operator and manager are from Votorantim Cimentos S.A. staff.	Verify	Ok
5.2.2 Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR/I	To be confirmed by local assessor. The project is included in the routine of the mills. All procedures, authorities and responsibilities are defined in the quality management system of the company.	Verify	Ok
5.2.3 Are procedures identified for training of monitoring personnel?	PDD	DR/I	To be confirmed by local assessor. During the implementation of the project activity, special training was required for the operation. But there are no formal training records.	Verify	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			The operators and managers interviewed during the site visit demonstrate knowledge about their activities and responsibilities regarding monitoring.		
5.2.4 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR/I	To be confirmed by local assessor. It is verified during site visit that this is not applicable for the project.	Verify	Ok
5.2.5 Are procedures identified for calibration of monitoring equipment?	PDD	DR/I	To be confirmed by local assessor. During the site visit, it was verified that there is a written procedure "Aferição da Balança Integradora do Secador de Escória, version 0" (for calibration of the weigh bridge which weighs the slag entering the dryer). The procedure is correctly implemented.	Verify	Ok
5.2.6 Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	To be confirmed by local assessor. The following documented procedures were verified during the site visit: Inspeção Seletiva Secador de Escória Hazemag, version 0. (Inspection of the slag dryer) PETS - Segurança na Troca de Revestimento Revolvedor/Secador de Escória, version 0. (Safety in the maintenance of the slag dryer). The procedures are adequately implemented, as verified on site and interviewing the operators/managers.	Verify	Ok
5.2.7 Are procedures identified for monitoring, measurements and	PDD	DR	To be confirmed by local assessor. All data are obtained from the electronic control system	Verify	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
reporting?			that automatically monitors and control plant operations.		
5.2.8 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR	To be confirmed by local assessor. The calculation of emissions reductions is made through a Microsoft Excel spreadsheet which contains formulae in accordance with the methodology. The data obtained from the consolidated reports shall be introduced in the spreadsheet and emissions reductions will be calculated automatically.	Verify	Ok
5.2.9 Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD	DR	To be confirmed by local assessor. They are described in the Plano da Qualidade, version 06 PDO01298 (Quality Plan).	Verify	Ok
5.2.10 Are procedures identified for review of reported results/data?	PDD	DR	To be confirmed by local assessor. Votorantim environmental manager and Ecoinvest have responsibility for the consolidation of data.	Verify	Ok
5.2.11 Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD	DR	To be confirmed by local assessor. Yes, internal audits are a requirement of Votorantim management system. All plants involved in these project has ISO 9001 certificate. See reference (3) in the end of the checklist.	Verify	Ok
5.2.12 Are procedures identified for project performance reviews before data is submitted	PDD	DR	To be confirmed by local assessor. It is defined that Ecoinvest is the responsible, but there is no procedure identified (defining what, when, who and how to do).	CAR 7	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
for verification, internally or externally?			Ecoinvest presented a written procedure for performance review. CAR 7 was closed out.		
5.2.13 Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD	DR	No (see above and CAR 7)	CAR 7	Ok

Table 6 Environmental Impacts (Ref PDD Section F and relevant local legislation) Normal CDM Project Activities only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	It was not clear. In the PDD, section F.1, it was mentioned that the project activity did not result in additional environmental impact. Provide more information about any requirement from environmental agency. During the site visit, it was confirmed that each plant has its own environmental license issued by the corresponding State Environmental Agency. See licenses references in the end of the checklist (Ref:4 – 13) NIR 3 has been closed out.	NIR 3	Ok
6.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD	DR	To be confirmed by local assessor. The project is part of the mills operational activities. The mills have the environmental license and are in compliance with the Brazilian environmental requirements.	Verify	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6.3 Will the project create any adverse environmental effects?	PDD	DR	It is expected not. The project received the legally required environmental licenses and is in compliance with the State environmental agency requirements related to atmospheric emissions, wastewater generation and solid residues final disposal.	Ok	Ok
6.4 Are transboundary environmental impacts considered in the analysis?	PDD	DR	No adverse transboundary impact was identified.	Ok	Ok
6.5 Have identified environmental impacts been addressed in the project design?	PDD	DR	No environmental impacts has been identified.	Verify	Ok
6.6 Does the project comply with environmental legislation in the host country?	PDD	DR	There are environmental licenses (issued by state environmental agencies) for each mill. The documents were verified during the site visit and copies were provided to SGS (see references listed in this checklist).	Verify	Ok

Table 7 Comments by local stakeholders (Ref PDD Section G) All CDM Project Activities

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.1 Have relevant stakeholders been consulted?	PDD	DR	Yes	Verify letters	Ok
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	Yes. Letters were sent to stakeholders in local language, with appropriate information regarding the project and the consultation process.	Verify	Ok
7.3 If a stakeholder consultation process	PDD	DR	Yes. Letters sent to:	Verify	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?			<ul style="list-style-type: none"> - City Hall (for each city) - Municipality Chamber (for each city) - State Environmental Agency (for each state) - Local Environmental Agency (for each city) - Local ONG (for each city) - State Public Attorney - FBOMS (Representative of Brazilian Environmental ONGs) <p>Copies of the invitation letters and receipts were verified</p>		
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	No comments were received.	Ok	Ok
7.5 Has due account been taken of any stakeholder comments received?	PDD	DR	No comments were received.	Ok	Ok

Table 8 Other requirements All CDM project activities

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	<p>In the page 1 of the PDD they had excluded: “version 02 – in effect as of: 1 July 2004”</p> <p>It was evidenced that the revised PDD use the most recent version. CAR 4 was closed out..</p>	CAR 4	Ok
8.1.2 Substantive issues: does the PDD address all the specific	PDD	DR	Yes.	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified					
8.2 Technology to be employed					
8.2.1 Does the project design engineering reflect current good practices?	PDD	DR	Yes.	Ok	Ok
8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	Yes.	Ok	Ok
8.2.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	It is not expected.	Ok	Ok
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR/I	No information about training was provided in the PDD. It should be clarify, because the PDD mention that many changes were necessary for the project activity. To clarify NIR 5, it was informed that training was required for the operation of the project activity Procedures were verified during site visit. In addition, it was verified that the operators and managers have knowledge about their responsibilities and tasks. PDD was revised accordingly to include additional information. NIR 6 has been closed out. NIR 5 has been closed out.	NIR 5	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.3 Duration of the Project/ Crediting Period					
8.3.1 Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD	DR	Section C.1.1 – starting date 01/09/2000 Section C.1.2 – lifetime 30 years	Ok	Ok
8.3.2 Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD	DR	Renewable crediting period. Starting data 01/01/2001	Ok	Ok
8.3.3 Does the project's operational lifetime exceed the crediting period	PDD	DR	Yes.	Ok	Ok

Table 9 Additional requirements for SSC project activities only – N/A

Table 10 Additional requirements for AR projects – N/A

Table 11 Additional requirements for SSC AR projects – N/A

Table 12 Additional information to be verified by local assessors / site visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Verify project installations like described	Visit	Site	It was verified project installations in Santa Helena (SH)	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
in the PDD.		visit	and Salto de Pirapora (SAL) plants.		
Verify documents about: installation of a new dryer of slag in SH, installation of two new mills in SAL, purchase agreement signed between Votorantim and slag suppliers.	DR	Site visit	<p>Installation of a new dryer of slag in SH in October/2003. involving the installation of the dryer, field instruments and auxiliary equipment. It was verified the installed equipment during site visit.</p> <p>Installation of two new mills in SAL, Mill#Z7 in September/2000 and Mill#Z8 in July/2003. Included the installation of the new mills, field instruments and auxiliary equipment. It was verified the installed equipment during site visit.</p> <p>Contract between Votorantim and CSN (slag supplier) dated on 30 April 1991 (Ref.15) , and Contract between Votorantim and Cosipa (slag supplier) dated on 1 May 2001 (Ref.16) . The contracts are valid and attend the Votorantim demand for slag (as defined in the project).</p> <p>Information evidencing that the new dryer was installed in 2003 was provided (services contracts).</p>	Ok	OK
Verify Sustainable Development and Climate Change commitment mentioned in the PDD..	DR	Site visit	<p>The information was verified in the company website http://www.votorantim-cimentos.com/responsabilidade/principais_acoes.shtml.</p> <p>Votorantim is member (since 1999) of the World Business Council for Sustainable Development and of Cement Sustainability Initiative. The company is signatory of an environmental protocol of cement industries and has a commitment to control CO2 emissions and to contribute to mitigate the climate change. Additional evidences that Votorantim has</p>	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			participate in the meetings of cements companies regarding this protocol were verified during the site visit.		
Verify ISO certificates and scope	DR	Site visit	See list of certificates in the references (Ref.1, 2 and 3).	Ok	Ok
Verify receipts of energy used in the project site operations.	DR	Site visit	<p>Verified the energy consumption worksheet and coal consumption worksheet.</p> <p>Energy consumption in 2000 = 15800 Kwh, 2001 = 9800 Kwh.</p> <p>Coal consumption in 2000 = 10000 t 2001 = 4400 t.</p>	Ok	Ok
Verify documents about transport information, distances, loads and fuel consumption.	DR	Site visit	Verified the document related to transportation, distances are fixed and consequently fuel consumption is fixed to.	Ok	Ok
Verify worksheets benchmark analysis, monitored data, emissions factor and project emissions, baseline emissions, leakage and emission reductions, and data were obtained.	DR	Site visit	It was verified three worksheets in each plant, with present the data. The tables are also in the PDD and copy (electronic file) was provided to SGS (see ref. 22)	Ok	Ok

References consulted during Ground Truthing and brief summary of content / significance [please try to obtain a hard copy where ever possible]:

Ref no.	Title (full bibliographic reference if possible)	Brief note on content / significance	Hard copy (Y/n)
1	ISO 14001:2004, Cia Cimento Portland Itaú, valid until 13/07/2008, certificate number A-098.	Scope: Production of cements, lime, mortar and agricultural limestone and co-processing of residues in ovens of clinquer.	Y
2	ISO 14001:2004, Cimento Rio Branco S.A, valid until 05/06/2008, certificate number A-088.	Scope: Production of cements Portland.	Y
3	ISO 9001:2000, Grupo Votorantim Cimentos, valid until 23/09/2006, certificate number CSQ-Q-1134.	Scope: Production of cement, lime, mortar and limestones derived.	Y
4	Operation license LO number 263/2001, 12 July 2001 issued by FEEMA.	Environmental license for Rio Negro plant.	Y
5	Operation license LO number FE004166, 15 September 2004 issued by FEEMA.	Environmental license for Rio Negro plant.	Y
6	Operation license number 6000680, 18/05/200 issued by CETESB.	Environmental license for Salto de Pirapora plant.	Y
7	Partial Operation license number 6001128, 08/05/2001 issued by CETESB.	Partial Environmental license for Salto de Pirapora plant.	Y
8	Partial Operation license number 6002139, 26/11/2003 issued by CETESB.	Partial Environmental license for Salto de Pirapora plant.	Y
9	Operation license number 6000702, 30/05/2000 issued by CETESB.	Environmental license for Votorantim plant.	Y
10	Operation license number 6002368, 05/07/2004 issued by CETESB.	Environmental license for Votorantim plant.	Y

11	Operation license number 065918, 24/08/1993 issued by CETESB.	Environmental license for Cubatão plant.	Y
12	Operation license LO 231/97, 05 November 2001 and LO FE011395, 13 July 2006 issued by FEEMA.	Environmental license for Volta Redonda plant.	Y
13	Environmental license number 370/2004, 4 October 2004 issued by FEAM.	Environmental license for Itaú de Minas plant.	Y
14	Worksheets 2000 and 2001	Energy consumption worksheet and coal consumption worksheet.	N
15	Contract between Votorantim and CSN (slag supplier), 30 April 1991.	Blast furnace slag supplier contract.	Y
16	Contract between Votorantim and Cosipa (slag supplier), 1 May 2001.	Blast furnace slag supplier contract.	Y
17	Aferição da Balança Integradora do Secador de Escória, version 0.	Calibration procedure (scale).	Y
18	Inspeção Seletiva Secador de Escória Hazemag, version 0.	Inspection procedure of slag dryer.	Y
19	PETS - Segurança na Troca de Revestimento Revolvedor/Secador de Escória, version 0.	Safety procedure in dryer maintenance .	Y
20	Plano da Qualidade, version 06 PDO01298.	Votorantim Quality plan.	Y
22	Votorantim clinker CER (Excel file)	Spreadsheet with data and formulas used in the PDD.	N
23	Websites: ABCP – Associação Brasileira de Cimento Portland (Brazilian Association of Portland Cement) and SNIC – Sindicato Nacional da Indústria do Cimento (National Association of the Cement Industry).	It was verified in the website of ABCP and of Association the type of cement that Votorantim produces and the maximum quantity of slag they can add in the cement production.	N

Individuals interviewed during Validation and Ground Truthing [name, position and contact details, plus a brief summary of points discussed]

Date met	Name	Position	Contact details	Brief note on subject of interview
29/11/2005	Patrícia Monteiro Montenegro	Environmental manager	Votorantim Cimentos patricia.montenegro@votoran.com.br	Project responsibility, technical issues, operational issues.
29/11/2005	Rodrigo Marcelo Leme	Consultant	Ecoinvest rodrigo@ecoinvestcarbon.com.br	PDD development, PDD, monitoring plan, baseline.
29/11/2005	Wilson Rocha	Furnace manager	Votorantim Cimentos	Discussion about process.
29/11/2005	Keila Golovat	Production	Votorantim Cimentos	Energy, coal, clinker worksheets.
29/11/2005	Fabio Santos	Environmental and safety coordinator	Votorantim Cimentos	Environmental license.

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