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Validation Report

CAMCO International Ltd.

VALIDATION OF THE CDM-PROJECT:

Waste Heat Recovery and Utilisation for Power Generation Project of Chizhou Conch Cement Company Limited

REPORT NO. 914095

2008, July 1

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Industrie Service

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Subject: Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich FEDERAL REPUBLIC OF GERMANY	**TÜV SÜD Contract Partner:** TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 - 80686 Munich FEDERAL REPUBLIC OF GERMANY
Client: CAMCO International Ltd. Channel House, Green Street, St Helier, Jersey SE 2 4UH, UK	**Project Site(s):** Niutoushan Town, Tongshan County of Chizhou City of Anhui Province, P.R. China. The geographic co-ordinates are 117°14'09''E and 30°26'50''N
Project Title: Waste Heat Recovery and Utilisation for Power Generation Project of Chizhou Conch Cement Company Limited	
Applied Methodology / Version: ACM0004 / Version 02	**Scope(s):** 1
First PDD Version: Date of issuance: 2006-11-29 Version No.: 01 Starting Date of GSP 2006-12-21	**Final PDD version:** Date of issuance: 2007-12-13 Version No.: 06
Estimated Annual Emission Reduction:	185 102 tons CO_{2e}
Assessment Team Leader: Dr. Sven Kolmetz	**Further Assessment Team Members:** Cuiyun Zhang Paula Auer

Summary of the Validation Opinion:

☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively.

☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.

Abbreviations

ACM	Approved Consolidated Methodology
AM	Approved Methodology
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CR	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission reduction
GHG	Greenhouse gas(es)
KP	Kyoto Protocol
MP	Monitoring Plan
NDRC	National Development and Reform Commission
NGO	Non Governmental Organisation
PDD	Project Design Document
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual
WACC	Weight Average Capital Cost of the company
WHR	Waste Heat Recovery

Table of Contents Page

1 INTRODUCTION

1.1 Objective

The validation objective is an independent assessment by a Third Party (Designated Operational Entity = DOE) of a proposed project activity against all defined criteria set for the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CDM-EB. The ultimate decision on the registration of a proposed project activity rests at the CDM Executive Board and the Parties involved.

The project activity discussed by this validation report has been submitted under the project title:

Waste Heat Recovery and Utilisation for Power Generation Project of Chizhou Conch Cement Company Limited

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM project activities the scope is set by:

- Ø The Kyoto Protocol, in particular § 12
- Ø Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Ø Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Ø Decisions by the EB published under http://cdm.unfccc.int
- Ø Specific guidance by the EB published under http://cdm.unfccc.int
- Ø Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-NM)
- Ø The applied approved methodology
- Ø The technical environment of the project (technical scope)
- Ø Internal and national standards on monitoring and QA/QC
- Ø Technical guideline and information on best practice

The validation is not meant to provide any consulting towards the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

Once TÜV SÜD receives a first PDD version, it is made publicly available on the internet at TÜV SÜD's webpage as well as on the UNFCCC CDM-webpages for starting a 30 day global stakeholder consultation process (GSP). In case of any request a PDD might be revised (under certain conditions the GSP will be repeated) and the final PDD will form the basis for the final evaluation as presented by this report. Information on the first and on the final PDD version is presented at page 1.

The only purpose of a validation is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a validation protocol was customised for the project. TÜV SÜD developed a "cook-book" for methodology-specific checklists and protocol based on the templates presented by the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below.

The completed validation protocol is enclosed in Annex 1 to this report.

Validation Protocol Table 1: Conformity of Project activity and PDD				
Checklist Topic / Question	**Reference**	**Comments**	**PDD in GSP**	**Final PDD**
The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then further sub-divided. The lowest level constitutes a checklist question / criterion.	Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any **Request** has to be substantiated within this column	Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (þ), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below). **Clarification Request (CR)** is used when the validation team has identified a need for further clarification.	Conclusions are presented in the same manner based on the assessment of the final PDD version.

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	**Ref. to table 1**	**Summary of project owner response**	**Validation team conclusion**
If the conclusions from table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.	The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.	This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final PDD".

In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	**Id. of CAR/CR 1**	**Explanation of the Conclusion for Denial**
If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.	Identifier of the Request.	This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion.

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body “climate and energy”. The composition of an assessment team has to be approved by the Certification Body ensuring that the required skills are covered by the team. The Certification Body TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope linked to the methodology has to be covered by the assessment team.

The validation team was consisting of the following experts (the responsible Assessment Team Leader in written in bold letters):

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
Dr. Sven Kolmetz	ATL	þ	þ	
Cuiyun Zhang	GHG-A	þ	þ	þ
Paula Auer	T		þ	

Dr. Sven Kolmetz is physicist and deputy head at the department “TÜV Carbon Management Service” located in the head office of TÜV Süddeutschland in Munich. Furthermore he is officially authorized expert in the verification of GHG emissions in the framework of the European Emission Trading Scheme. Before entering TÜV SÜD he worked as energy consultant for industrial companies and as consultant for the German Federal Government on instruments for the reduction of GHG emissions.

Cuiyun Zhang is an auditor for environmental management systems (according to ISO 14001) at Jiangsu TUV Product Service Ltd. She is based in Shanghai. In her position she is responsible for the implementation of validation, verification and certifications audits for management systems. She has received training in the CDM validation process and participated already in several CDM project assessments.

Paula Auer is an environmental engineer and auditor trainee for environmental management systems at the department “TÜV Carbon Management Service” located in the head office of TÜV Süddeutschland in Munich. She has received training in the CDM validation process and participated already in several CDM project assessments.

2.2 Review of Documents

The first PDD version submitted by the client and additional background documents related to the project design and baseline were reviewed as initial step of the validation process. A complete list of all documents and proofs reviewed is attached as annex 2 to this report.

2.3 Follow-up Interviews

On January 19, 2007 TÜV SÜD performed interviews on-site with project stakeholders to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of this on-site visit.

Name	Organisation
Mr. Sun Hai	Anhui Conch Cement Company Limited
Mr. Chen Qian	Chizhou Conch Cement Company Limited
Mr. Wu Tiejun	Chizhou Conch Cement Company Limited
Mr. Hou Min	Chizhou Conch Cement Company Limited
Mr. Huang Congwang	Chizhou Conch Cement Company Limited
Mr. Cheng Jian	Chizhou Conch Cement Company Limited
Mr. Yang Nianjiu	Chizhou Conch Cement Company Limited
Ms. Sophie Chou	CAMCO International Ltd.
Mr. Zhang Peng	CAMCO International Ltd.
Mr. Liu Liang	CAMCO International Ltd.

2.4 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarifications and any other outstanding issues which needed to be clarified for TÜV SÜD`s positive conclusion on the project design. The Corrective Action Requests and Clarification Requests raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are summarised in chapter 3 below and documented in more detail in the validation protocol in annex 1.

2.5 Internal Quality Control

As final step of a validation the validation report and the protocol have to undergo and internal quality control procedure by the Certification Body “climate and energy”, i.e. each report has to be approved either by the head of the certification body or his deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

It rests at the decision of TÜV SÜD’s Certification Body whether a project will be submitted for requesting registration by the EB or not.

3 SUMMARY OF FINDINGS

As informed above all findings are summarized in table 2 of the attached validation protocol.

History of the validation process

The audit team has been provided with a PDD in November 2006. Based on this documentation a document review and a fact finding mission in form of an on-site audit has taken place. Afterwards the client decided to revise the PDD according to the CARs and CRs indicated in the audit process. The final PDD version submitted in December 2007 serves as the basis for the assessment presented herewith. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM to achieve a reduction of anthropogenic GHG emissions by sources and to contribute to sustainable development.

Project description

The following description of the project as per PDD could be verified during the on-site audit:

The project activity is a waste heat recovery and utilization for power generation project located at Chizhou Conch Cement Company Limited at Niutoushan Town in Chizhou City of Anhui Province. Chizhou Conch Cement Company Limited is subordinate to Anhui Conch Cement Group Company Limited.

The main objective of the project activity is to develop an auxiliary waste heat power generation project for two 5000t/d and one 8000t/d clinker production line to reduce greenhouse gas emissions through the recovery and use of waste heat from the rotating kiln of the clinker production lines.

The total installed capacity is 28,6 MW. The annual design power generation amounts to 220,000 MWh and the yearly power supply to cement production lines is 204,600 MWh. All the power generation from the project activity is used by the cement plant itself. It will be connected with the public grid but it does not send the electricity to the public grid. The designed annual operation time of facilities is about 7692 hours.

Findings

In total the assessment team expressed 5 Clarification Requests and 14 Corrective Action Requests.

The required additional information and data regarding benchmark, sensitivity and common practice analysis was submitted to the DOE and where required included into the PDD [CAR 7, CAR6, CAR 8]. Additional information has been provided in the monitoring plan [CAR 10, CAR 11], the project description [CR2] and the EIA Process description [CR5].

The formal information about
- the PDD issuance date,
- the project scope,
- the measurement boundary,
- the time schedule of the project activity,

have been included or corrected in the PDD [CAR1, CAR4, CAR13, CR1] as well as the correct emission calculation formulae [CAR10].

Inconsistencies between the PDD and the situation on-site have been revised and added to the PDD [CAR1, CR4]. Also the inconsistencies in the PDD have been corrected [CAR2, CAR5, CAR9, CAR7].

For the EF calculation the PDD adopted the calculation of the NDRC data published on 8th August 2007 [CAR5, CAR14, CR3].

Documents written in Chinese (e.g. FSR, electricity tariffs) have been checked and verified by our native speaking local auditor.

After all the open questions have been closed, the PDD is considered to be in compliance with the CDM requirements.

Baseline calculation

Following ACM0002, the OM is calculated as the generation weighted average emissions per electricity unit (tCO2/MWh) of all generating sources serving the system, excluding low-operating cost and must run power plants using a 3-year generation weighted average, based on the data of the most recently published China Energy Statistics Yearbooks at the time of PDD submission.

The calculation of the Build Margin for this project makes use of aggregated data to identify the 20% most recent capacity additions (sample group m). This is identified by direct comparison of the total installed capacity on the Central Power Network in the most recent year where data is available, in this case 2004, and with historical data from preceding years until the 20% threshold is achieved.

Following guidance issued by the CDM Executive Board in response to a request for guidance from an accredited DOE on the determination of the Build Margin in methodology AM0005 (the predecessor of ACM0002) in China, the BM factor is calculated as the capacity weighted average emissions factor of new installed capacity instead of the generation weighted factor. Furthermore, it is suggested in the same guidance note that the efficiency level of the best technology commercially available in the provincial/regional or national grid of China is used as a conservative proxy for each fuel type in estimating the fuel consumption when calculating the Build Margin.

Moreover, the IPCC values 1996 as well as the statisitical yearbooks 2000 – 2005 have been used.
The calculation as described above results in a much lower grid factor than the published ones. Hence, the more conservative figures used in the PDD have been accepted.

Additionality

The additionality has been evidenced by investment analysis. During the validation process the benchmark for demonstrating additionality has been changed from project IRR to WACC. Considering the fact, that there is no other potential project developer the project IRR has not been considered to be appropriate.

Anhui Conch Cement Company limited (ACCCL) is a listed company. As such, it has a higher cost of equity than a comparable state owned enterprise in China. For that reason we consider the WACC as an appropriate analysis method [CAR6]. The underlying documents for the WACC calculations have been verified by the local auditor. The IRR calculation will be uploaded together with the PDD.
In case of a higher life time - as in other WHR projects - the IRR will be higher, but still below the benchmark. This has been checked and verified by the responsible auditor.
Based on a World Bank report (reference in Annex 2 no. 54) the technology and equipment used by ACCCL is not common practice in China.
Consideration of CDM before starting evidenced by the invitation of the bidding for developing the Conch projects as per CDM, dated on Nov 21st, 2005; the meeting minutes of CDM project between Clear World Energy and Hailuo Cement Corporation, dated in December 2005; the report on China-Japan CDM Workshop; dated 27th September 2004; and the Request for Instructions on Waste Heat Power Generation-Related CDM Projects of the Second Phase of Ningguo Cement Plant, Chizhou Conch Cement Plant and Zongyang Conch Cement Plant; dated 29th November 2004; references in Annex 2 no.34, no.35, no.55 and no.56.

Based on this justification the project is additional.

Monitoring

The monitoring plan considers all required parameters given by the methodology ACM0002/ Version 06. These parameters are the total generation output from the project activity EG_{GEN}, the electricity consumed in the power plant EG_{AUX} and the electricity supplied to the cement plants from the project activity EG_y.

The Power Meters will be calibrated by a certified Party at least once per year in accordance of the manufacturer's recommendations and National Regulations for ensuring reliability of the system. The accuracy of the power meters will be 0,5S.

Further questions occurred:

Issue 1

1. The DOE is requested to confirm how it has validated that the project is additional based on the results of the investment analysis, in particular with reference to the applied benchmark for this and similar project activities

AND

Issue 2

2. Further clarification is required on (a) how the DOE has validated the technological barriers, (b) the essential differences between the project activity and the similar projects using domestic technology cited in the common practice analysis and (c) why the PP has not opted to use the domestic technology for the project activity.

AND

Issue 3

If the barriers to the project activity cannot be further substantiated, an economic comparison of the proposed baseline and the project activity without CDM must be conducted to determine the baseline scenario

Referring to Issue 1

Response by Project Participant

The project applies the internal benchmark of Anhui Conch Cement Company Limited (ACCCL). The internal benchmark has been selected since it is a requirement of the Board. Applying the

company internal benchmark is consistent with national policies on investments and it meets the conditions of both the Additionality Tool and the guidance provided in EB39 (Annex 35).

In China, sector benchmarks are published in the "Methods and Parameters for Financial Evaluation of Construction projects (3rd Edition)". The sector benchmarks in this book have been applied for the CDM by many projects and including projects in the cement sector. However, as set out in the book, these benchmarks are for investment projects to be undertaken with Government funding or are in the Government's area of focus (sectors where products are priced by the Government and guided by government policies). These sectors include electricity, water supply, heat and gas supply, rail and airport. The benchmarks are not always suitable for private investors or other investors. Indeed, the Methods and Parameters book states that private investors or other investors can determine their own benchmark based on their cost of capital and risk premium on particular investment project. (p196, 197, 199 Methodology and Parameters) [*]

Anhui Conch Cement Company limited (ACCCL) is a listed Company. ACCCL was established in 1997 and was listed in 2002 on the Shanghai Stock Exchange and so has multiple shareholders. As such, its financing is from different capital channels that causes various costs of capital.

ACCCL therefore has a higher cost of equity than fully State Owned Enterprises or enterprises or projects which are supported by government funding in China. This is due to the fact that it has to satisfy the minimum equity costs required by shareholders with a higher cost of capital. As such, ACCCL must meet the minimum equity costs required by shareholders as well as the debt cost required by banks in order to continue to obtain financing for their plenty of investments demanded for retrofitting/modifying existing clinker lines and constructing new clinker lines during the tenth five-year plan of China social and economic development which is set out as the development strategy of ACCCL stated in the Resolution of the Board. ACCCL has set up their own internal benchmark for the minimum internal rate of return on equity investment at 18% that represents their cost of capital in 2003.,which is evidenced by an internal confidential document of the resolution of the Board[†] .The resolution of the board has been submitted to DOE.

Version 3 of the additionality tool as applied by this project states that a benchmark can be derived from "a company internal benchmark (weighted average capital cost of the company) if there is only one potential project developer (e.g. when the project activity upgrades an existing process)".

As such in order to demonstrate the validity of this benchmark the Project Participant has calculated the weighted average cost of capital (WACC) in 2005. This showed a WACC of 17.86%. Given that this is lower than the 18% specified by Conch, 17.86% this has been applied as the benchmark in the investment analysis to be conservative.

[*] "Methodology and Parameters for Economical Appraisal of Construction Project", China Planning Publishing House (version 3)

[†] The Resolution of the ACCCL Board on the Development Strategy of ACCCL during the Tenth Five-year Plan of China Social & Economic Development and the Company Internal Benchmark for the Investments

Version 3 of the additionality tool also states that "The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark". Therefore the Project Participant has also supplied the IRRs of all previous investments the DOE. The full list of investments that have been undertaken by ACCCL since 2003 is shown below.

Year	Project title
2003	4000 t/d Clinker Cement Production Retrofit Engineering of Baimashan Conch Cement Company Limited
2003	10000 t/d Clinker Cement Production line Retrofit Engineering of Tongling Conch Cement Company Limited
2004	Phase III 2x4500t/d clinker line of Digang conch cement Company Limited
2004	1.65 million tone/a cement grinding line of Taizhou conch cement Company Limited
2004	Phase I 5000t/d clinker line of Wuhu conch cement Company Limited
2004	Phase I 2×5000t/d cement clinker line of Xuancheng conch cement Company Limited
2005	Phase I 4000t/d cement clinker line of Beiliu conch cement Company Limited
2005	4x4500 t/d Cement Clinker Production Retrofit project of Chizhou Conch Cement Company Limited
2005	Phase II 2×4500t/d Cement Clinker Production Retrofit project Wuhu Conch Cement Company Limited

This list includes both new build clinker lines and retrofit projects to existing clinker lines and all of these projects show returns higher than 18% (and indeed the more conservative benchmark of 17.86% used in the PDD). The IRRs range from 18% - 27%. Actual data has been omitted on request of ACCCL, but the FSR of this list of projects has been checked by the DOE.

Since the project was submitted additional guidance has been issued by the EB at EB39 (annex 35). Paragraph 12 of this guidance states the following.

Guidance: Internal company benchmarks/expected returns (including those used as the expected return on equity in the calculation of a weighted average cost of capital - WACC), should only be applied in cases where there is only one possible project developer and should be demonstrated to have been used for similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region. This shall require as a minimum clear evidence of the resolution by the company's Board and/or shareholders and will require the validating DOE to undertake a thorough assessment of the financial statements of the project developer - including the proposed WACC - to assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects.

Rationale: Paragraph 4 of the Tool for the demonstration and assessment of additionality (version 3) requires that benchmarks should not include the subjective profitability expectations or risk profile of a particular project developer.

In response to this new guidance, the Project Participant presents the following:

1. The proposed project has only one potential developer which is Chizhou Conch Cement Company Limited (CCCCL) subordinated to ACCCL and decision of investment is made by ACCCL. The project is integrated into the core business of ACCCL and as such they would be the only investor.

2. The internal benchmark is determined by the Board of Directors of ACCCL as described above.

3. Since 2003 all of the investments undertaken by ACCCL have had equity returns above the benchmark of 18% and therefore the same financial behaviour is demonstrated for more than 3 years.

4. The investments listed above include both similar projects (retrofit) and other projects (new clinker lines). All projects are required to meet the same financial returns in ACCCL. Furthermore, technologies that are not core business in ACCCL are expected to be even more financially attractive due to the lack of experience and therefore perceived technology risk.

Response by TÜV SÜD:

In assessing the benchmark used in the investment analysis, TÜV SÜD has followed a 3-step approach:

Step 1: Assessment of the eligibility of the project participant to use WACCC

According to “The guidelines on the Assessment of Investment Analysis, WACC should only be used in cases where there is only one possible project developer and should be demonstrated to have been used for similar projects, developed by the same company.

The project owner is Chizhou Conch Cement Company Limited (CCCCL) subordinated to ACCCL and decision of investment is made by ACCCL. They are the only project developer, as the project is located at their plant side.

The project participant provided the DOE with an overview of the company investments since 2003. For all projects (from 2003 to 2005) mentioned above, the FSR has been checked and verified by TÜV SÜD. All investments, projects with similar risks/ lower risks and other ones, have crossed the announced benchmark of 17,86%. We are of the opinion that since project is not the core business of the company and has higher associated risks, so it is conservative to take the same benchmark applied to other projects in core business of the company.

The internal benchmark of 18% was decided in a board meeting of ACCCL dated on 19th January 2003. This document has been checked and validated by TÜV SÜD.

Therefore, the DOE can confirm, that the benchmark was continuously applied by the project developer.

Step 2: Assessment of the formulae used to calculate WACC

The formula has been taken from Rechard P. and Bill N. (2003) “Corporate Finance (fourth edition)”, Prentice Hall and has been crosschecked with other financial definitions.

The formula can be considered as valid and applicable.

Step 3: Assessment of the Input values to WACC calculation

The equity and dept balance of Chizhou Conch Cement Company Limited has been checked through the “Consolidated Balance sheet of Anhui Conch Cement Limited”. The values applied in the calculation are consistent to them.

The shared market price has been evidenced through Yahoo stock market information „share price on 30th December 2005.

The dividends have been evidenced by the Yahoo stock market information „dividends paid over the period of 2002-2006“.

By these procedures TÜV SÜD was able to confirm, that the benchmark applied is reasonable and in line with governmental requirements and UNFCCC requirements. Hence the project is additional.

As ACCCL is a listed company and therefore has higher costs of equity than fully State Owned Enterprises, which is due to the requirements of the shareholders, the sector benchmark for cement industry is not the appropriate benchmark for this project. Please also refer to „ Methods and Parameters for Financial Evaluation of construction projects (3rd edition)“.

On page 196, 197, 199 it is stated that the benchmarks are not always suitable for private investors and for sectors where the products are not governed by government. And the private investors can determine their own benchmark based on their cost of capital and risk premium.

Referring to issue 2:

Response by Project Participant

(a) Technological barriers

This principal mechanism for demonstration of additionality for this project is through the use of an investment analysis. As such the barrier analysis need not to be applied and the project participant agrees to the removal of this section.

(b) Differences between domestic technology and Kawasaki technology

The main difference between the two technologies is that the Kawasaki technology is more efficient and more expensive than domestic technology. The power generation of clinker per ton for the Japanese technology is 36 • 45kWh/t . This compares to 38-42 kWh/t for domestic technology. The inner efficiency of turbine for the Japanese technology is 83%-90% and for the domestic technology it is 80-87%. The capital cost is of the Japanese technology is 9000 -12000RMB/KW compared to

5500-6500RMB/kW for domestic.[*] The Japanese technology therefore has a higher risk profile than domestic technology.

Given the lack of experience in the cement sector in waste heat recovery, companies tend to look at the lower cost option of domestic technology. These technology applications have in the past been limited to demonstration projects as shown in the common practice analysis list.

(c) The use of domestic technology

In 1998 Conch were awarded grant financing by the Japanese Government's Green Fund to demonstrate the Japanese Kawasaki waste heat recovery technology at their Ningguo plant (Ningguo Phase I). Subsequent to this demonstration project, Conch did not invest in any additional waste heat recovery plants since they were not core business and did not meet their financial objectives. Given that Conch already had some experience of the Kawasaki technology at one of their sites they only looked at roll out of this technology and not other less efficient technology options. Using domestic technology was therefore never an option that was considered seriously by Conch.

Response by TÜV SÜD

a) The project participant will rely on the investment analysis. The barrier analysis will be skipped in the revised PDD. For that reason an answer to this question is not needed anymore.

b) and c) TÜV SÜD can confirm the answer of the project participant. According to a word bank report there are usually two choices for a Chinese cement company to decide. One is to adopt the Japanese equipment and the other the domestic one. The Japanese equipment is more efficient but also more expensive than the domestic one. From the energy efficiency point of view, Japanese equipment is better, but the higher investment costs hinder the implementation.

For that reason the project 1611 is different to those mentioned in the common practice analysis.

Referring to issue 3:

Response by Project Participant:

The investment analysis in the PDD demonstrates that the project is not financially attractive when compared to the baseline scenario since the savings made by not purchasing power from the grid are already included in the economic analysis.

[*] http://www.chinacements.com/news/2007/4-11/C134253705.htm

However to further elaborate this point the project participant has prepared a levelised cost analysis for the project and baseline scenarios. This has been done through a Net Present Value of the costs of the two scenarios and a subsequent evaluation of the levelised cost of both.

This is presented below in the tables below.

For comparison of these two scenarios the different tax situations have been considered. This is due to the fact that scenario of the project activity (scenario 1) without CDM includes a capital investment and the scenario of purchasing electricity from the grid (scenario 2) does not. For scenario 1 there is a capital allowance for the depreciation and amortization of the capital cost. For both scenarios 1 and 2 income tax will be due. Income tax is due on net income and in scenarios 1 and 2 this will be different and there is a tax benefit in having higher annual costs i.e. less tax will be paid. In other words net annual income will be less when there are higher annual costs and therefore income tax will also be less. Conversely, when net annual income is higher then so are the taxes.

The tables below show that the levelised cost of power generation obtained for scenario 2 is 252 RMB/MWh. This is much less than the levelised cost for scenario 1, which is 282RMB/MWh. Therefore the rational decision is to continue to purchase power and as such it can be confirmed that the baseline is indeed purchase of power from the grid and not the proposed project undertaken without the CDM.

This assessment further demonstrates the additionality of the project and is compliant with Sub-step 2b: Option II. Apply investment comparison analysis. As such, this further substantiates Question 1 above and demonstrates that the project is additional based on the results of this investment analysis.

Industrie Service

Power Generation

		Reference	0	1	2	3	4	5	6	7	8	9	10	11	12
Annual Power Generation (MWh)	A	FSR	-	184,140	204,600	204,600	204,600	204,600	204,600	204,600	204,600	204,600	204,600	204,600	204,600
Discount Factor	B	$= 1 / (1 + DR)^n$	1	0.84746	0.71818	0.60863	0.51579	0.43711	0.37043	0.31392	0.26604	0.22546	0.19106	0.16192	0.13722
Present Value of Annual Generation (MWh)	C	= A x B	-	156,051	146,940	124,526	105,531	89,433	75,790	64,228	54,432	46,129	39,091	33,129	28,075
Total Present Value of Annual Generation (MWh)	D	= Sum (C_i)	963,354												
Net Power Price (RMB/MWh)	**E**	**FSR**	376												

Scenario 1. Chizhou conch WHR Project

		Reference	0	1	2	3	4	5	6	7	8	9	10	11	12
Capital Cost	F	FSR	217,836,200												
Depreciation	G	FSR		14,894,908	14,894,908	14,894,908	14,894,908	14,894,908	14,894,908	14,894,908	14,894,908	14,894,908	14,894,908	14,894,908	14,894,908
Amortization	H	FSR		2,474,167	2,474,167	2,474,167	2,474,167	2,474,167	2,474,167	2,474,167	2,474,167	2,474,167	2,474,167		
O&M Cost	I	FSR		23,990,000	25,220,000	25,220,000	25,220,000	25,220,000	25,220,000	25,220,000	25,220,000	25,220,000	25,220,000	25,220,000	25,220,000
Residue	J	FSR													9,407,310
Income Tax saved (@ 33%)	k	= (F+G+H+I-J) x 0.33		13,648,494	14,054,394	14,054,394	14,054,394	14,054,394	14,054,394	14,054,394	14,054,394	14,054,394	14,054,394	13,237,919	10,133,507
Total Cost	L	= F + I - K	217,836,200	10,341,506	11,165,606	11,165,606	11,165,606	11,165,606	11,165,606	11,165,606	11,165,606	11,165,606	11,165,606	11,982,081	15,086,493
Discount Factor	M	$= 1 / (1 + DR)^n$	1	0.84746	0.71818	0.60863	0.51579	0.43711	0.37043	0.31392	0.26604	0.22546	0.19106	0.16192	0.13722
Present Value of Total Annual Cost	N	= LxM	217,836,200	8,764,012	8,018,915	6,795,722	5,759,108	4,880,598	4,136,075	3,505,107	2,970,498	2,517,397	2,133,301	1,940,138	2,070,169
Total Present Value of Annual Costs	**O**	**= Sum (L_i)**	271,327,240												
Levelised Cost (RMB/MWh)	**P**	**= O / D**	282												

Scenario 2. Power Purchase

		Reference	0	1	2	3	4	5	6	7	8	9	10	11	12
Capital Cost	F	FSR													
O&M Cost	G	FSR		69,236,640	76,929,600	76,929,600	76,929,600	76,929,600	76,929,600	76,929,600	76,929,600	76,929,600	76,929,600	76,929,600	76,929,600
Income Tax saved (@ 33%)	H	= G x 0.33		22,848,091	25,386,768	25,386,768	25,386,768	25,386,768	25,386,768	25,386,768	25,386,768	25,386,768	25,386,768	25,386,768	25,386,768
Total Cost	J	= F + G - H		46,388,549	51,542,832	51,542,832	51,542,832	51,542,832	51,542,832	51,542,832	51,542,832	51,542,832	51,542,832	51,542,832	51,542,832
Discount Factor	K	$= 1 / (1 + DR)^n$	1	0.84746	0.71818	0.60863	0.51579	0.43711	0.37043	0.31392	0.26604	0.22546	0.19106	0.16192	0.13722
Present Value of Total Annual Cost	L	= J x K	-	39,312,440	37,017,031	31,370,514	26,585,277	22,529,887	19,093,011	16,180,326	13,712,455	11,620,847	9,847,773	8,345,815	7,072,707
Total Present Value of Annual Costs	**M**	**= Sum (L_i)**	**242,688,084**												
Levelised Cost (RMB/MWh)	**N**	**= M / D**	252												

Response by TÜV SÜD:

The economical analysis of Anhui Conch Cement Company limited to implement a CCPP project, was based on benchmark analysis during the investment decision.

The above described “levelised costs analysis” was conducted to answer to this request for review.

The above stated levelised cost analysis has been conducted to fulfil the methologized requirement as stated in the Request for Review. This analysis has been validated and shows that scenario 1 (generating electricity at the Chizhou Cement Plant) has higher levelised cost 282 RMB/MWh than scenario 2 (purchasing electricity from the grid) 252 RMB/MWh. In this scenario the project owner would continue purchase from grid since this option is more economically feasible.

Input values to this analysis are similar to the analysis presented earlier. These input values were already validated during validation process.

The method of comparison is appropriate in our opinion since it clearly presents the price to get an unit off electricity (kWh) in both scenarios.

The discount rate used for project scenario is same as benchmark and is considered to be very appropriate. The discount rate for “purchase from grid” should ideally be lower than project scenario, because it does not involve risks similar to the project. However to evaluate the two scenarios under similar circumstances we are of the opinion that the same discount rate should be used.

Increase in grid tariff will mean that OM costs should also be increased in same proportion. However, if in a grid tariff analysis, the grid price is increased by 10%, keeping O&M costs of project same, the grid scenario is economically non attractive. Hence the analysis is robust.

Additional the scenario to continue purchase from grid does not require high initial investment and no further risks, where as the development of the project includes both. Hence the baseline scenario should be purchasing electricity from the grid.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on UNFCCC website by installing a link to TÜV SÜD's own website and invited comments by Parties, stakeholders and non-governmental organisations during a period of 30 days.

The following table presents all key information on this process:

webpage: http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=2408&Ebene1_ID=26&Ebene2_ID=716&mode=1	
Starting date of the global stakeholder consultation process: 2006-12-21	
Comment submitted by: none	**Issues raised:** -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity:

Waste Heat Recovery and Utilisation for Power Generation Project of Chizhou Conch Cement Company Limited

The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board.

An analysis as provided by the applied methodology demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions as specified within the final PDD version.

The validation is based on the information made available to us and the engagement conditions detailed in this report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

Munich, 2008-07-01

Certification Body “climate and energy”
TÜV SÜD Industrie Service GmbH

Munich, 2008-07-01

Assessment Team Leader

Annex 1: Validation Protocol

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
A. General description of the project activity					
A.1. Title of the project activity					
A.1.1.	Does the used project title clearly enable to identify the unique CDM activity?	1, 2,	The project is titled with the name of the project location including company name and the energy source of the project. Hence, it can be clearly identified.	þ	þ
A.1.2.	Are there any indication concerning the revision number and the date of the revision?	1	The available PDD for document review and on-site assessment is indicated as 1st version and completed on Nov. 29th, 2006.	þ	þ
A.1.3.	Is this consistent with the time line of the project's history?	1	The same version has been published for GSP since Dec. 21st, 2006 at DOE's website: www.Netinform.net.	þ	þ
A.2. Description of the project activity					
A.2.1.	Is the description delivering a transparent overview of the project activities?	1	Chizhou Conch Cement Company Limited, subsidiary company of Anhui Conch Cement Group Company Limited, runs two 5 000 t/d and one 8 000t/d clinker production lines. This project is a power generation project utilizing the waste heat from these three production lines. According to the schedule, the project activity will be implemented in two phrases. In the first phrase, the 17 MW auxiliary waste heat power generation system utilizing the waste heat generated from two 5 000 t/d production lines will be built; in the second phrase, the 8 000 t/d line will be equipped with a generator with the capacity of 11.6 MW. The generated electricity is consumed by the plant itself to reduce the purchased electricity from grid. The project boundary is confirmed by the validator during the on site audit. <u>Corrective Action Request 1:</u> Only one PH boiler will be installed at the 2nd phase, pls. correct the depiction in section A.2. accordingly.	CAR 1 CR 1	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
			Clarification Request 1: Introduced by the project owner and verified on site, the installation of the recovery and generation system at phase 1 has been accomplished. The electricity generation is still on construction and is expected in the second half of Feb. The start date of power generation would be in June, 2007. The emission reductions in the crediting period is calculated accordingly. However, please add a time schedule of the project activity into the revised PDD.		
A.2.2.	What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1	The project activity is the displacement of purchasing electricity by coal fired power plants with electricity generated by utilizing the waste heat from the rotating kiln of cement production. The following data deliver evidences for the project activity: - Feasibility study (approved on Aug. 15th, 2005 by Anhui Province Development and Reform Commission) - Purchasing contracts of HP boilers, AQC boilers, turbine and generator (The installation of phase 1 has been finished) - Environmental Impact Assessment (approved on May 8th, 2005 by the EPB of Anhui Province). These data have been evidenced during the audit. The required data are delivered in the PDD. The statistical background has been reviewed with official documentation (Approved feasibility Study Report, China Electric Power Yearbooks 2003-2005, China Statistics Yearbook 2000 - 2005).	þ	þ
A.2.3.	Is the information provided by these proofs consistent with the information provided by the PDD?	1	The required data and background are delivered in the PDD and have been evidenced during the audit.	þ	þ
A.2.4.	Is all information presented consistent with details provided by further chapters of	1	Corrective Action Request 2: The operating hours of the electricity generation is not consistent	CAR 2	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	the PDD?		in the PDD. In chapter A.2, since Year 2008, more than 7 600 operation hours per year are assumed, however in sub-step 2d, only 6 000 h operation is forecasted, which means maximum 171 600MWh per year is expected. The same operating hours for all the calculation are required and a conservative approach should be used.		
A.3. Project participants					
A.3.1.	Is the form required for the indication of project participants correctly applied?	1	The required form is applied correctly.	þ	þ
A.3.2.	Is the participation of the listed entities or Parties confirmed by each one of them?	1	Both Cargill International SA and CAMCO International Limited are the investment parties in this project and Anhui Conch Cement Company Limited, the mother company of Chizhou Conch Cement company Limited, is the project owner. All 3 companies are listed in Table A.3. Corrective Action Request 3: According to the latest request from China DNA, the name of Chinese participant presented in LoA shall be the subsidiary company which carries out the project activity. Hence, in this case, the private entity from host country needs to be revised to Chizhou conch Cement Company Limited at section A.3. and Annex 1 of the PDD.	CAR 3	
A.3.3.	Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1	Pls. refer to A.3.2.	See CAR 3	
A.4. Technical description of the project activity					
A.4.1.	*Location of the project activity*				

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
A.4.1.1.	Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1	The project location could be clearly identified according to Figure 1 and Figure 2 in the PDD. The project activity is located at Niutou Town, Tongshan County of Chizhou City, Anhui Province, China. The exact geographical coordinates are given and verified.	þ	þ
A.4.1.2.	How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	1, 7, 8, 29, 30	The feasibility report and EIA were approved by NDRC and EPB of Anhui Province in Aug. and May, 2005 respectively. On the other hand, the main equipments including boilers and the generator have been installed at the defined site. Doubtless, the project activity will be in operation as stated in the PDD.	þ	þ
A.4.2.	*Category(ies) of the project activity*				
A.4.2.1.	To which category(ies) does the project activity belonging to? Is the category correctly identified and indicated?	1, 2	The project activity falls into scope 1, which has been clearly identified in the PDD.	þ	
A.4.3.	*Technology to be employed by the project activity*				
A.4.3.1.	Does the technical design of the project activity reflect current good practices?	1, 7, 12, 13, 14, 21	Yes. Even though there are several local equipment suppliers, the working efficiency of key apparatus and operation systems are still much lower than the imported ones. For this project, the owner chooses Kawasaki Heavy Industries Ltd. as supplier of the PH boiler and system designer who is also responsible for AQC boiler development.	þ	þ
A.4.3.2.	Does the description of the technology to be applied provide sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance?	1, 7, 12, 13, 14, 21	Yes, the project activity comprises the recovering and utilization of waste heat to generate electricity for the substitution of grid supplied electricity mainly from coal fired plants. There is no doubt that this technology will reduce the GHG emissions significantly.	þ	þ
A.4.3.3.	Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(ies)?	1, 7, 12, 13,	The entire operation system together with key facilities are designed and manufactured by Kawasaki Heavy Industries Ltd., a Japanese company. Obviously, a technology transfer is required.	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
	14, 21			
A.4.3.4. Is the technology implemented by the project activity environmentally safe?	1, 29, 30	The project activity is electricity generation by utilizing the waste heat from the rotating kiln of cement production. Through the recovery process of waste heat, the harmful emissions (including SO_x, NO_x and floating particles) could be significantly reduced.	þ	þ
A.4.3.5. Is the information provided in compliance with actual situation or planning?	1, 7	The key equipments and operation procedure are listed in Table 1 of the PDD. All the related information including the purchasing contract of main equipments has been verified by the auditor on site.	þ	þ
A.4.3.6. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 7, 12, 13, 14, 21	Yes. The project adopts advanced technology and equipments. Compared with domestic technology, it will improve the working efficiency prominently.	þ	þ
A.4.3.7. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1, 7, 12, 13, 14, 21	We do not expect that there will be a substitution because the turbines and the other equipment have been newly commissioned and installed. The life cycle of boilers and the turbine are under normal circumstances longer than the project period.	þ	þ
A.4.3.8. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1, 7, 12, 26, 27	Yes, because of the implementation of Japanese technology and instruments, there are additional training needs to guarantee safe operation during the life time of the project.	þ	þ
A.4.3.9. Is information available on the demand and requirements for training and maintenance?	1, 7, 12, 26, 27	The operators have been trained to acquire experience at the brother company, Ninguo Conch Cement Company Limited where a similar power generation system is in operation. The training records and evaluation results have been reviewed by the valida-	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
			tor on site.		
A.4.3.10.	Is a schedule available for the implementation of the project and are there any risks for delays?	1, 7, 12	Pls. refer to CAR 1	See CAR 1	þ
A.4.4.	*Estimated amount of emission reductions over the chosen crediting period*				
A.4.4.1.	Is the form required for the indication of projected emission reductions correctly applied?	1, 2, 3, 22	The project emission reductions are shown in Table 2, chapter A.4.4 according to the guidelines. Corrective Action Request 4: The crediting period is anticipated to start on April 1st, 2007, whereas, considering the site assessment of validation is executed in January, the registration date may be later than that day consequently. Therefore, pls. modify the relative emission reduction figures in A.4.4. and B.6.4. of the PDD together with the starting date in A.4.4. and C.2.2.1. of the PDD.	CAR 4	þ
A.4.4.2.	Are the figures provided consistent with other data presented in the PDD?	1, 2, 3, 22, 23, 24	Pls. see A.4.4.1. of the protocol.	See CAR 4	þ
A.4.5.	*Public funding of the project activity*				
A.4.5.1.	Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1, 18	According to the investment records reviewed by the DOE there is no public funding necessary, all costs are covered by the equity capital from Chizhou Conch Cement Plant itself and loan from the Bank of China.	þ	þ
A.4.5.2.	Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1, 18	The statement in Annex 2 is consistent with that in A.4.5.2 of the PDD.	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B. Application of a baseline and monitoring methodology				
B.1. Title and reference of the approved baseline and monitoring methodology				
B.1.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1, 2	The methodology ACM0004 (version 02) is applied to this project. It is clearly indicated at B.1. of the PDD.	þ	þ
B.1.1.2. Is the applied version the most recent one and / or is this version still applicable?	1, 2	The 2nd version of ACM0004 is the latest one.	þ	þ
B.2. Justification of the choice of the methodology and why it is applicable to the project activity				
B.2.1.1. Is the applied methodology considered the most appropriate one?	1, 2	Besides ACM0004 and AM0024 "Baseline methodology for greenhouse gas reductions through waste heat recovery and utilisation for power generation at cement plants" seems also to be applicable. However, the project activity fulfils the applicability criteria of ACM0004. Hence, the project developer choose this methodology. If this methodology is the latest one and refers to the latest revision of ACM0002 the DOE agrees with the project developer that this will be the more appropriate methodology. Clarification Request 2: During the site visiting, the auditor has verified that there is done no fuel switch in the process while implementing the project activity. Pls. add such statement into the revised PDD to complete the applicability criteria.	CR 2	þ
B.2.2. Criterion 1: The applicability is limited to project activities that generates electricity from waste heat, waste pressure or the combustion of waste gases in industrial facilities	1, 2	Applicability checklist / Yes / No Criterion discussed in the PDD? Yes Compliance provable? Yes Compliance verified? Yes	þ	þ

<table>
<tr><th colspan="2">CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td colspan="2"></td><td></td><td>Through recovering and utilizing the waste heat from the rotating kiln of cement clinker production line, the project generates electricity to replace the power imported from the East China Grid Network, a grid that delivers electricity mainly generated by fossil fuels.</td><td></td><td></td></tr>
<tr><td>B.2.3.</td><td>Criterion 2:
The project activity has to displace electricity generation with fossil fuel in the electricity grid or captive electricity generation from fossil fuels</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>Through recovering and utilizing the waste heat from the rotating kiln of cement clinker production line, the project generates electricity to replace the power imported from the East China Grid Network, a grid that delivers electricity mainly generated by fossil fuels.</td><td>þ</td><td>þ</td></tr>
<tr><td>B.2.4.</td><td>Criterion 3:
After the implementation of the project activity there has to be done no fuel switch in the process, where the waste heat or pressure or the waste gas is produced.</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>The technology and equipment ensure that there’s no fuel switch in the process.</td><td>þ</td><td>þ</td></tr>
<tr><td>B.2.5.</td><td>Criterion 4:
If capacity expansion of an existing facility is planned during the crediting period, the added capacity must be treated as a new facility.</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>N.A.</td></tr><tr><td>Compliance provable?</td><td>N.A.</td></tr><tr><td>Compliance verified?</td><td>N.A.</td></tr></table>The project activity is an installation of a new power plant. Hence,</td><td>þ</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		this section is not applicable.		
B.3. Description of the sources and gases included in the project boundary				
B.3.1. Source: Grid electricity generation Gas(es): CO2 Type: Baseline Emissions	1, 2	Boundary checklist / Yes / No Source and gas(es) discussed in the PDD? Yes Inclusion / exclusion justified? Yes Explanation / Justification sufficient? Yes Consistency with monitoring plan? Yes	þ	þ
B.3.2. Source: Captive electricity generation Gas(es): CO2 Type: Baseline Emissions	1, 2	Boundary checklist / Yes / No Source and gas(es) discussed in the PDD? N.A. Inclusion / exclusion justified? N.A. Explanation / Justification sufficient? N.A. Consistency with monitoring plan? N.A. The project activity is a new facility, hence, this parameter needs not be considered.	þ	þ
B.3.3. Source: On-site fossil fuel consumption due to the project activity Gas(es): CO2 Type: Project Emissions	1, 2	Boundary checklist / Yes / No Source and gas(es) discussed in the PDD? Yes Inclusion / exclusion justified? Yes Explanation / Justification sufficient? Yes Consistency with monitoring plan? Yes	þ	þ
B.3.4. Do the spatial and technological bounda-	1, 2	The project boundary includes:	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	ries as verified on-site comply with the discussion provided by / indication included to the PDD?		- the rotating kiln generating the waste heat; - heat recovery boilers (PH and AQC boilers), the waste heat generator unit and auxiliary facilities; - all power plants connected to the defined electricity grid The related documents and evidences have been reviewed on site.		
B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario					
B.4.1.	Have all technically feasible baseline scenario alternatives (a) - (f) to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?	1, 2, 3	The following baseline scenarios are discussed: - Business as usual (grid electricity supply from the East China Power Network) - Proposed project activity without consideration of the CDM - Installation of a new captive power plant to meet the demand - Other use of the waste heat - A mix of using the electricity from both captive power and grid electricity These scenarios are required by methodology and the only ones that are making sense.	þ	þ
B.4.2.	Does the project identify correctly and excludes those options not in line with regulatory or legal requirements?	1, 2, 3	During the site visiting, the coal proved to be the only available source at the project site. However, according to Chinese national regulations, the installation of coal-fired power plants of less than 50 MW is not permitted. Therefore, the related scenarios are not the baseline scenario alternatives.	þ	þ
B.4.3.	Have applicable regulatory or legal requirements been identified?	1, 9, 10, 11	There are no specific national regulations or legal requirements on treating with the waste heat from clinker production.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
B.4.4.	If baseline scenario is captive power generation (Option 1), is the estimated boiler efficiency determined due to Option A or B?	1	There's no existing captive power plant, hence, this section is not applicable.	þ	
B.4.5.	If the baseline scenario is grid power imports (Option 2), is the Emission Factor calculated as in ACM0002?	1, 3, 22	It is demonstrated and evidenced that the grid-power-imports are the baseline scenario for the project activity. The calculation processes are expounded in B.6.1 and Annex 3 of the PDD. However, some faults are detected: <u>Corrective Action Request 5:</u> - The formula quoted in B.6.1 of the PDD do not reflect the calculation process in Annex 3; - The weights of OM and BM shall be 0.5/0.5, pls. correct the formula in Annex 3 of the PDD accordingly; - The IPCC figures shall be updated to 2006 version; - The CO_2 emission from coal-fired plants connected to the East China Grid Network in Year 2004 is not considered in OM calculation at Table A1 of the PDD. <u>Clarification Request 3:</u> - Pls. deliver the official source of CO_2 Emission Factor of imported electricity in Year 2002, 2003 and 2004 to the validator. - Referring to CAR 5, the CM needs to be re-calculated and a larger figure is expected. On the other hand, NDRC has published the OMs and BMs for each regional grid on Dec. 15th, 2006 at the NDRC website for reference use. Hence, the OM, BM of this project should be checked with the published ones and the more conservative data shall be	CAR 5 CR 3	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
			used for emission reduction estimation.		
B.4.6.	If the baseline scenario includes both captive and imported power (Option 3), is the emission factor weighted correctly?	1	There's no existing captive power plant, hence, this section is not applicable.	þ	
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):					
B.5.1.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	1, 7, 25	The Addtionality Tool (2 version) provides 3 options. All of them are fully discussed in the PDD. Because the project activity generates financial benefits through the sales of electricity; Option I is not applicable. In the PDD, Option II is chosen. Corrective Action Request 6: Considering the fact that there's no other potential project developer in this case, the internal benchmark of Anhui Conch Cement Group is used as a benchmark. During the audit, the approved IRR of the installation of two new cement plants run by Conch Group have been reviewed by the auditor. Hence, Option III deems to be the most appropriate analysis method.	CAR 6	
B.5.2.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	1	Referring to B.5.1 of the protocol, this section is not applicable.	þ	þ
B.5.3.	In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 7, 25	According to EB's latest requirement, the spreadsheet of IRR calculation in English shall be added into the revised PDD or uploaded to the website as an enclosure to the PDD. Furthermore, two issues need to be clarified: Corrective Action Request 7: The IRR of the project activity in the PDD is not consistent with the one in the approved feasibility report. The figure in the PDD	CAR 7	

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
			and following sensitivity analysis shall be updated accordingly. The equity IRR should be delivered as well if there is only one project developer.		
B.5.4.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 7, 25	Referring to B.5.1 of the protocol.	See CAR 6	
B.5.5.	In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	1, 7, 25			þ
B.5.6.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	1, 7, 25			þ
B.5.7.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	1, 12, 21	Though there's no complete list of barriers presented in the PDD, referring to the discussion in B.5 of the PDD, it is clearly demonstrated that besides the scenario: Proposed project activity without consideration of the CDM, no other baseline scenario encounters the technology or investment barriers.	þ	þ
B.5.8.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1, 12, 21	The project owner has to face both technology and investment barriers which are demonstrated in the PDD. Even though there are several local equipment suppliers, as introduced by the project owner, the working efficiency of key apparatus and operation systems are still much lower than the imported ones. For this project, the owner choose Kawasaki Heavy Industries Ltd. as supplier and designer. Through reviewing the technical description of the operation system and the core equipments, which are	CR 4	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
			part of the purchasing contract, it has been verified that more maintenance and operation difficulties are expected. Clarification Request 4: During the audit, some preventive actions have been introduced to ensure that the power plant could reduce the GHG emission as expected, such as specific instruments fixed to boilers and additional training provided to the operators. Pls. add the related information into the PDD.		
B.5.9.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	1, 12, 21		þ	þ
B.5.10.	Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	1	Corrective Action Request 8: The common practice analysis in the PDD is incomplete. During the document review, more similar power plant utilizing waste heat from cement production process than listed in the PDD were detected. Additional documents were delivered on site that clearly show the differences between these projects and the further projects. Please provide the additional documents shown during the audit to the DOE and add them to the PDD.	CAR 8	þ
B.5.11.	If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)?	1	Pls. kindly refer to B.5.10 of the protocol.	See CAR 8	þ
B.5.12.	Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hur-	1	As stated in the PDD, the CDM registration will help to overcome the financial risks and technical barriers. Moreover, the CDM revenue will encourage Anhui Conch Cement Plant to keep on im-	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	dles or other identified barriers (step 5)?		plementing the advanced Japanese technology to other cement plants.		
B.6. Emissions reductions					
B.6.1.	*Explanation of methodological choices*				
B.6.1.1.	Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1, 2	See CAR 5.	See CAR 5	þ
B.6.1.2.	Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1, 2, 22, 23, 24	Yes, the justification has been fully discussed and demonstrated in the PDD. All the data are referring to the latest available Chinese Electric Power Yearbook (2003 - 2005) and the China Energy Statistical Yearbook (2000 - 2005). However, pls. refer to CAR 5 and CR 3 for modification.	See CAR 5 CR 3	þ
B.6.1.3.	Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2, 3	Yes, the formula quoted from the methodology is used. According to the feasibility study report, there's no fossil fuel used for generation start-up, in emergencies or providing additional heat, hence, the project emission is zero.	þ	þ
B.6.1.4.	Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2, 3	Pls. see the B.4.5 of the protocol.	See CAR 5	þ
B.6.1.5.	Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2	According to the methodology, the leakage needs not be considered.	þ	þ

<table>
<tr><th colspan="2">CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td>B.6.1.6.</td><td>Are the formulae required for the determination of emission reductions correctly presented?</td><td>1, 2, 3</td><td>See CAR 5.</td><td>See CAR 5</td><td>þ</td></tr>
<tr><td>B.6.2.</td><td colspan="5">Data and parameters that are available at validation</td></tr>
<tr><td>B.6.2.1.</td><td>Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?</td><td>1, 2</td><td><u>Corrective Action Request 9:</u>
Referring to the CAR 5 and CR 3, the formulae quoted in B.6 are not complied with the calculation process in Annex 3 of the PDD. Hence, the parameters need to be updated accordingly.</td><td>CAR 9</td><td>þ</td></tr>
<tr><td colspan="6">Integrate the required amount of sub-checklists for monitoring parameter and comment on any line answered with “No”</td></tr>
<tr><td>B.6.2.2.</td><td>Parameter Title:
EF_i
Carbon emissions factor of fuel (estimation of project emissions)</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table><u>Corrective Action Request 10:</u>
According to the methodology and the PDD, the EF_i shall be the emission factor of fuel for the project emission estimation. Pls. correct.</td><td>CAR 10</td><td>þ</td></tr>
<tr><td>B.6.2.3.</td><td>Parameter Title:
Hr
Average plant efficiency</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr></table></td><td>þ</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Appropriate description of parameter? N.A. Source clearly referenced? N.A. Correct value provided? N.A. Has this value been verified? N.A. Choice of data correctly justified? N.A. Measurement method correctly described? N.A. This parameter is not applicable for this project.		
B.6.2.4. Parameter Title: EF_y CO2 emission factor of the grid	1, 2	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? No Has this value been verified? No Choice of data correctly justified? Yes Measurement method correctly described? Yes Pls. kindly refer to CAR 5 and CR 3.	See CAR 5 CR 3	þ
B.6.2.5. Parameter Title: $EF_{OM,y}$ CO2 operating margin emission factor of the grid	1, 2	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? No Source clearly referenced? No Correct value provided? No Has this value been verified? No Choice of data correctly justified? No	See CAR 5 CR 3	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Measurement method correctly described? Yes Pls. kindly refer to CAR 5 and CR 3.		
B.6.2.6. Parameter Title: $EF_{BM,y}$ CO2 build margin emission factor of the grid	1, 2	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	þ	þ
B.6.2.7. Parameter Title: $F_{i,j,y}$ Amount of each fossil fuel consumed by each power source / plant	1, 2	Data Checklist / Yes / No Title in line with methodology? N.A. Data unit correctly expressed? N.A. Appropriate description of parameter? N.A. Source clearly referenced? N.A. Correct value provided? N.A. Has this value been verified? N.A. Choice of data correctly justified? N.A. Measurement method correctly described? N.A. Because the data on the five power plants built most recently are not available, an approved deviation is implemented. Hence, the fuel consumption for best technology commercially available and	þ	þ

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td></td><td></td><td>the share of incremental installed capacity of fuel-fired power in the whole incremental installed capacity are used as parameters for BM calculation. Both of them are verified during the on site assessment.</td><td></td><td></td></tr>
<tr><td>B.6.2.8. Parameter Title:
COEF $_{i,k}$
CO2 emission factor of each fuel type and each power source / plant</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>
Pls. refer to B.6.2.7 of the protocol.</td><td>þ</td><td>þ</td></tr>
<tr><td>B.6.2.9. Parameter Title:
GEN $_{j,y}$
Electricity generation of each power source / plant</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>
Pls. refer to B.6.2.7 of the protocol.</td><td>þ</td><td>þ</td></tr>
</table>

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td>B.6.2.10. Parameter Title:
$EF_{CO2,i}$
CO2 emission factor of fuel used for captive power generation</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>
The project activity does not displace a captive power generation, then, this section is not applicable.</td><td>þ</td><td>þ</td></tr>
<tr><td>B.6.2.11. Parameter Title:
$Eff_{captive}$
Energy efficiency of captive power plant (estimation of baseline emissions factor in case of captive power)</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>
The project activity does not displace a captive power generation, hence, this section is not applicable.</td><td>þ</td><td>þ</td></tr>
<tr><td colspan="5">B.6.3. Ex-ante calculation of emission reductions</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B.6.3.1. Is the projection based on the same procedures as used for future monitoring?	1, 2, 3	Yes, it is.	þ	þ
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	1, 2, 3	Pls. see CAR 5 and CR 3.	See CAR 5 CR 3	þ
B.6.3.3. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1, 2, 3	The data in this section are consistent with those in other chapters of the PDD.	þ	þ
B.6.4. Summary of the ex-ante estimation of emission reductions				
B.6.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	1, 3	The project activity is going to replace the electricity supplied from the East China Grid Network, a grid mainly comprised with coal-fire plants. There's no doubt that fewer GHG emission will be resulted in.	þ	þ
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	1, 3	Yes, the required form is applied.	þ	þ
B.6.4.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1, 3	Because 12 years of lifetime is expected, fixed crediting period of 10 years is chosen and seems reasonable. Whereas, the EF_{CM} need to be updated, the figures in Table B.6.4 shall be updated accordingly.	þ	þ
B.6.4.4. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1, 3	Yes, it is.	þ	þ
B.7. Application of the monitoring methodology and description of the monitoring plan				
B.7.1. Data and parameters monitored				
B.7.1.1. Is the list of parameters presented in	1, 2	Corrective Action Request 11:	CAR	þ

<table>
<tr><th colspan="2">CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td colspan="2">chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?</td><td></td><td>The parameters required according to the methodology to monitor the project emission should be completely included in the revised PDD and the justification of each parameter needs to be given in the tables. If there are parameters not needed please mark this in the adequate table as “not applicable”.</td><td>11</td><td></td></tr>
<tr><td colspan="6"></td></tr>
<tr><td>B.7.1.2.</td><td>Parameter Title:
Q_i
Volume of the auxiliary fuel used by project activity
(estimation of project emissions)</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>
Pls. refer to B.7.1.1. of the protocol.</td><td>See CAR 11</td><td>þ</td></tr>
<tr><td>B.7.1.3.</td><td>Parameter Title:
NCV_f
Net Calorific Value of fuel
(estimation of project emissions)</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr></table></td><td>See CAR 11</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Has this value been verified? N.A. Measurement method correctly described? N.A. Correct reference to standards? N.A. Indication of accuracy provided? N.A. QA/QC procedures described? N.A. QA/QC procedures appropriate? N.A.		
B.7.1.4. Parameter Title: EG_{Gen} Total electricity generated (estimation of electricity generation by project activity)	1, 2	Monitoring Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided for estimation? No Has this value been verified? No Measurement method correctly described? No Correct reference to standards? No Indication of accuracy provided? No QA/QC procedures described? No QA/QC procedures appropriate? No Referring to CAR 2, the operation time is not consistent with the PDD, a fixed yearly operation hours as well as total generated electricity shall be figured out in conservative manner. Corrective Action Request 12: - The value of data applied for the emission reductions calculation in section B. 5 of the PDD shall be presented in a table; - The accuracy of electricity meter, calibration procedure, calibration standard and the related process on monitoring, recording and archiving data shall be described in the	CAR 12 See CAR 2	þ

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td></td><td></td><td>revised PDD.</td><td></td><td></td></tr>
<tr><td>B.7.1.5. Parameter Title:
EG_{AUX}
Auxiliary electricity
(including electrical energy utilized by the power generating equipment in the project boundary)</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table><u>Corrective Action Request 13:</u>
Besides issues raised from CAR 2 and CAR 12, the measurement boundary of EG_{AUX} is project activity, not the cement plant. Pls. correct accordingly.</td><td>CAR 13
See CAR 2
CAR 12</td><td>þ</td></tr>
<tr><td>B.7.1.6. Parameter Title:
EG_y
Net electricity supplied to facility</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr></table></td><td>See CAR 2</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Indication of accuracy provided? — No QA/QC procedures described? — N.A. QA/QC procedures appropriate? — N.A. Pls. see CAR 2.		
B.7.1.7. Parameter Title: Q_{WG} Flow rate of waste gas	1, 2	Monitoring Checklist — Yes / No Title in line with methodology? — No Data unit correctly expressed? — No. Appropriate description of parameter? — No Source clearly referenced? — No Correct value provided for estimation? — No Has this value been verified? — No. Measurement method correctly described? — No. Correct reference to standards? — No Indication of accuracy provided? — No QA/QC procedures described? — No QA/QC procedures appropriate? — No	See CAR 11	þ
B.7.1.8. Parameter Title: NCV_{WG} Net Calorific Value of the waste gas	1, 2	Monitoring Checklist — Yes / No Title in line with methodology? — No Data unit correctly expressed? — No Appropriate description of parameter? — No Source clearly referenced? — No Correct value provided for estimation? — No Has this value been verified? — No Measurement method correctly described? — No Correct reference to standards? — No	See CAR 11	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Indication of accuracy provided? No QA/QC procedures described? No QA/QC procedures appropriate? No		
B.7.1.9. Parameter Title: Q_i Flow rate of fuel i	1, 2	Monitoring Checklist / Yes / No Title in line with methodology? No Data unit correctly expressed? No Appropriate description of parameter? No Source clearly referenced? No Correct value provided for estimation? No Has this value been verified? No Measurement method correctly described? No Correct reference to standards? No Indication of accuracy provided? No QA/QC procedures described? No QA/QC procedures appropriate? No	See CAR 11	þ
B.7.1.10. Parameter Title: NCV_i Net calorific value of fuel i	1, 2	Monitoring Checklist / Yes / No Title in line with methodology? No Data unit correctly expressed? No Appropriate description of parameter? No Source clearly referenced? No Correct value provided for estimation? No Has this value been verified? No Measurement method correctly described? No Correct reference to standards? No Indication of accuracy provided? No QA/QC procedures described? No QA/QC procedures appropriate? No	See CAR 11	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B.7.1.11. Parameter Title: Use the latest approved version of ACM0002 to calculate the grid emission factor. If the power generation capacity of the project plant is less or equal to 15 MW, project participants may use the average CO2 emission factor of the electricity system, as referred to in option (d) in step 1 of the baseline determination in ACM0002. $EF_{grid,y}$	1, 2, 3	The ex-ante approach from ACM 0002 (ver. 6) is adopted for the $EF_{grid,y}$ estimation. The spreadsheet has been reviewed by the auditor on site. Some faults have been detected, therefore, it shall be updated. Whereas, this parameter need not be monitored during the 1st crediting period.	þ	þ
B.7.2. Description of the monitoring plan				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisoned situation?	1, 2	The managing structure is clearly described in the PDD. All monitoring data will be recorded by appointed data collectors and verified by QC supervisors. In case the data exceed the tolerance, authorized quality director and general manager will be reported for the necessary adjustment.	þ	þ
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1, 2	See B.7.2.1. of the protocol.	þ	þ
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1, 2	Yes, it is.	þ	þ
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisoned monitoring provisions?	1, 2	The monitoring procedures are clearly described in section B.7, no more information is needed from Annex 4.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)					
B.8.1.1.	Is there any indication of a date when the baseline was determined?	1	The baseline is determined on Nov. 15th, 2006.	þ	þ
B.8.1.2.	Is this consistent with the time line of the PDD history?	1	Yes. The PDD is prepared with the latest available data at that time (China Electric Power Yearbook 2003-2005, China Energy Statistical Yearbook 2000-2005 as well as IPCC 1996). However, the IPCC figure shall be updated with the newly published 2006 version.	þ	þ
B.8.1.3.	Is the information on the person(s) / entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1	Yes. The persons from entity indicated in the PDD are also the ones being interviewed for baseline verification during the on site audit.	þ	þ
B.8.1.4.	Is information provided whether this person / entity is also considered a project participant?	1	Yes. They are the investment party of this project.	þ	þ
C. Duration of the project activity / crediting period					
C.1. Duration of the project activity					
C.1.1.	Are the project's starting date and operational lifetime clearly defined and reasonable?	1	Pls. refer to CAR 4.	See CAR 4	þ
C.2. Choice of the crediting period and related information					
C.2.1.	Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max.	1	12 years of life time is expected, hence, the choice of fixed crediting period of 10 years makes sense.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	10 years)?				
D. Environmental impacts					
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts					
D.1.1.	Has the analysis of the environmental impacts of the project activity been sufficiently described?	1, 29, 30	Yes, the environmental impacts of the project activity such as noise, visual impacts, interference with communication, land use, air quality and water usage have been clearly described.	þ	þ
D.1.2.	Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1, 29, 30	Yes, EIA is a must in the P. R. China for new power projects. The Anhui Science Consulting Company carried out the EIA and issued it in Mar., 2005. The EIA was approved by the EPB of Anhui Province on May, 2005. Those documents have been reviewed by the DOE.	þ	þ
D.1.3.	Will the project create any adverse environmental effects?	1, 29, 30	Referring to the EIA and the approval of EIA, the project will create no negative environmental impacts.	þ	þ
D.1.4.	Were transboundary environmental impacts identified in the analysis?	1, 29, 30	The proposed project activity locates within China, hence, this section is not applicable.	þ	þ
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party					
D.2.1.	Have the identified environmental impacts been addressed in the project design sufficiently?	1, 29, 30	Referred to the EIA and the approval of EIA, the impacts on the environment are not significant.	þ	þ
D.2.2.	Does the project comply with environmental legislation in the host country?	1, 29, 30	Yes.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
E. Stakeholders' comments					
E.1. Brief description how comments by local stakeholders have been invited and compiled					
E.1.1.	Have relevant stakeholders been consulted?	1, 31, 32, 33	Yes, the relevant stakeholders have been consulted via an open public meeting dated on July 12th, 2006. The local government officers and residents were invited. In the meeting, the project activity, the CDM scheme and environmental impacts have been introduced by Chizhou Cement Plant. Clarification Request 5: The description on how the meeting was organized, which approach is used to invite stakeholders, how many persons have attended, etc. shall be included in the revised PDD.	CR 5	
E.1.2.	Have appropriate media been used to invite comments by local stakeholders?	1, 31, 32, 33	The invitation letters for the project introduction meeting has been distributed by the local government.	þ	þ
E.1.3.	If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1, 31, 32, 33	There are no regulations/laws in China for carrying out the stakeholder consultation process for this project activity.	þ	þ
E.1.4.	Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1, 31, 32, 33	Yes, verified by the detailed documents, such as photos, memo of meeting, introduction letter of project, the process is described in a complete and transparent manner.	þ	þ
E.2. Summary of the comments received					
E.2.1.	Is a summary of the received stakeholder comments provided?	1, 31,	The comments from stakeholders are collected and recorded in the meeting memo which has been reviewed by the auditor.	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
	32, 33			
E.3. Report on how due account was taken of any comments received				
E.3.1. Has due account been taken of any stakeholder comments received?	1, 31, 32, 33	Referring to the PDD and the evidence provided on site, all the received comments are positive.	þ	þ
F. Annexes 1 - 4				
F.1. Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	1	Yes, it is.	þ	þ
F.1.2. Is the information on all private participants and directly involved Parties presented?	1	Yes, it is.	þ	þ
F.2. Annex 2: Information regarding public funding				
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1	Pls. refer to A.4.5.1. of the protocol.	þ	þ
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	1	Not applicable.	þ	þ
F.3. Annex 3: Baseline information				
F.3.1. If additional background information on baseline data is provided: Is this informa-	1, 3	All the data source and applied formulae are completely demonstrated in Chapter B of the PDD, hence, there's no additional	See CAR 5	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	tion consistent with data presented by other sections of the PDD?		background information provided in Annex 3. However, referring to the CAR 5 and CR 3, the calculation process in Annex 3 needs to be updated.	CR 3	
F.3.2.	Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1, 3	See F.3.1.	þ	þ
F.3.3.	Does the additional information substantiate / support statements given in other sections of the PDD?	1, 3	Correction Action Request 14: Referring to the CAR 5 and CR 3, the emission factor of the defined grid needs to be revised, hence, baseline emissions rate, annual baseline emissions, annual emission reductions shall be updated. Moreover, the crediting period is expected to start at the end of Year 2007.	CAR 14	þ
F.4. Annex 4: Monitoring information					
F.4.1.	If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1	There's no additional background information mentioned in Annex 4 of the PDD.	þ	þ
F.4.2.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1	See F.4.1.	þ	þ
F.4.3.	Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1	See F.4.1	þ	þ

Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
Chizhou Conch Cement Company Limited, subsidiary company of Anhui Conch Cement Group Company Limited, runs two 5000 t/d and one 8 000t/d clinker production lines. This project is a power generation project utilizing the waste heat from these three production lines. According to the schedule, the project activity will be implemented in two phases. In the first phase, the 17 MW auxiliary waste heat power generation system utilizing the waste heat generated from two 5000 t/d production lines will be built; in the second phase, the 8 000 t/d line will be equipped with a generator with the capacity of 11.6 MW. The generated electricity is consumed by the plant itself to reduce the purchased electricity from grid. The project boundary is confirmed by the validator during the on site audit. Corrective Action Request 1: Only one PH boiler will be installed at the 2nd phase, pls. correct the depiction in section A.2. accordingly.	A.2.1.	Revised as DOE's requirement in PDD. **DOE's first response:** A.1 Please use the format mentioned in the "PDD guidelines" (DD/MM/YYYY) A.4.2 The scope of ACM0004 is 1, not 1 and 4, please kindly correct. **PP´s second response:** It has been changed to the scope of ACM0004 sector 1	þ The right data format has been used. þ The right scope has been indicated in the PDD.
Corrective Action Request 2: The operating hours of the electricity generation is not consistent in the PDD. In chapter	A.2.4.	Revised as DOE's requirement in PDD.	þ 7 692 h have been used finally. This is consistent with

A.2, since Year 2008, more than 7 600 operation hours per year are assumed, however in sub-step 2d, only 6 000 h operation is forecasted, which means maximum 171 600 MWh per year is expected. The same operating hours for all the calculation are required and a conservative approach should be used.			the capacity (28.6 MW) and the annual power generation (220 000 MWh)
Both Cargill International SA and CAMCO International Limited are the investment parties in this project and Anhui Conch Cement Company Limited, the mother company of Chizhou Conch Cement company Limited, is the project owner. All 3 companies are listed in Table A.3. Whereas, Corrective Action Request 3: According to the latest request from China DNA, the name of the Chinese participant presented in the LoA shall be the subsidiary company which carries out the project activity. Hence, in this case, the private entity from host country needs to be revised to Chizhou conch Cement Company Limited at section A.3. and Annex 1 of the PDD.	A.3.2.	Pls. kindly check the attached reference of LoA. **DOE's first response:** We received the LoA of the British as well as the Chinese DNA. Pls. send us the LoA from the Swiss DNA. **PP´s second response:** MoCs are delivered. Additional evidence for the decision making process to consider CDM before construction is delivered. LoA of Swiss DNA will be delivered before the request for registration will be submitted.	þ
The project emission reductions are shown in Table 2, chapter A.4.4 according to the guidelines. Corrective Action Request 4: The crediting period is anticipated to start on April 1st, 2007, whereas, considering the site assessment of validation is executed in January, the registration date may be later than that day consequently. Therefore, pls.	A.4.4.1.	Revised as DOE's requirement in PDD.	þ The table B.6.4. has been revised according to table A.4.4. regarding the month in 2007 and 2018.

modify the relative emission reduction figures in A.4.4. and B.6.4. of the PDD together with the starting date in A.4.4. and C.2.2.1. of the PDD.			
It is demonstrated and evidenced that the grid-power-imports are the baseline scenario for the project activity. The calculation processes are expounded in B.6.1 and Annex 3 of the PDD. However, some faults are detected: Corrective Action Request 5: - The formula quoted in B.6.1 of the PDD do not reflect the calculation process in Annex 3; - The weights of OM and BM shall be 0.5/0.5, pls. correct the formula in Annex 3 of the PDD accordingly; - The CO_2 emission from coal-fired plants connected to East China Grid Network in Year 2004 is not considered in OM calculation at Table A1 of the PDD.	B.4.5.	Revised as DOE's requirement in PDD. The baseline calculation has been delivered.	þ The imports from the Central China Power Network have been considered and the correct weight has been applied.
The Addtionality Tool (2 version) provides 3 options. All of them are fully discussed in the PDD. Because the project activity generates financial benefits through the sales of electricity; Option I is not applicable. In the PDD, Option II is chosen. However, Corrective Action Request 6: Considering the fact that there's no other potential project developer in this case, the internal benchmark of Anhui Conch Cement	B.5.1.	Option II is chosen. More details description will be clarified in revised PDD. **DOE´s first response:** The comparison does not include the calculation of the alternative IRR and the alternative project (building of a new cement plant) is not comparable (higher investment, different output). **Project owner´s response:** The investment analysis has been changed to WACC as benchmark.	þ 1) Evidencing documents regarding the WACC calculation have been delivered and verified by the local auditor. þ 2) The sensitivity analysis has been accepted from TÜV SÜD.

Group is used as a benchmark. During the audit, the approved IRR of the installation of two new cement plants run by Conch Group have been reviewed by the auditor. Hence, Option III deems to be the most appropriate analysis method.		**DOE's second response:** 1) Please deliver evidencing documents for WACC calculation. 2) Why is the electricity price not included in the sensitivity analysis? It has high influence on the IRR outcome. Please add the electricity price into the sensitivity anaysis, or explain why it has no major influence on the IRR. **PP´s third response:** 1) The evidences for WACC calculation have been verified by Rachel in Shanghai on 11th Nov. Please check attached evidences again 2) We did not include electricity price into sensitivity analysis, because electricity is priced by the government in china and is fixed price, it does not fluctuate as market changes. If you look at other power generation projects in China, no electricity price was included in sensitivity analysis.	
According to EB's latest requirement, the spreadsheet of IRR calculation in English shall be added into the revised PDD or uploaded to the website as an enclosure to the PDD. Furthermore, two issues need to be clarified: Corrective Action Request 7: The IRR of the project activity in the PDD is not consistent with the one in the approved feasibility report. The figure in the PDD and following sensitivity analysis shall be updated accordingly. The equity IRR should be delivered as well if there is only one project devel-	B.5.3.	The data for the new benchmark analysis is delivered to the DOE and the data of the PDD and the spreadsheet are identical. **DOE's second response:** Please use correct project investment costs in "Reasons for applying WACC" to be consistent in the whole PDD. **PP´s third response:** We corrected mistake in project investment cost so that it is inconsistent in the whole PDD, please check page	þ

oper.		15	
Corrective Action Request 8: The common practice analysis in the PDD is incomplete. During the document review, more similar power plant utilizing waste heat from cement production process than listed in the PDD were detected. Additional documents were delivered on site that clearly show the differences between these projects and the further projects. Please provide the additional documents shown during the audit to the DOE and add them to the PDD.	B.5.10.	Additional documents have been shown to the DOE and quoted in the PDD.	þ Verified by the local auditor.
Corrective Action Request 9: Referring to the CAR 5 and CR 3, the formulae quoted in B.6 are not complied with the calculation process in Annex 3 of the PDD. Hence, the parameters need to be updated accordingly.	B.6.2.1.	Revised as DOE's requirement in PDD.	þ
Corrective Action Request 10: According to the methodology and the PDD, the EF_i shall be the emission factor of fuel for the project emission estimation. Pls. correct.	B.6.2.2.	Revised as DOE's requirement in PDD.	þ
Corrective Action Request 11: The parameters required according to the methodology to monitor the project emission should be completely included in the revised PDD and the justification of each parameter needs to be given in the tables. If there are	B.7.1.1.	Revised as DOE's requirement in PDD.	þ

parameters not needed please mark this in the adequate table as “not applicable”.			
Corrective Action Request 12: - The value of data applied for the emission reductions calculation in section B. 5 of the PDD shall be presented in a table; - The accuracy of electricity meter, calibration procedure, calibration standard and the related process on monitoring, recording and archiving data shall be described in the revised PDD.	B.7.1.4.	Revised as DOE’s requirement in PDD.	þ
Corrective Action Request 13: Besides issues raised from CAR 2 and CAR 12, the measurement boundary of EG_{AUX} is the project activity, not the cement plant. Pls. correct accordingly.	B.7.1.5.	Revised as DOE’s requirement in PDD.	þ
Correction Action Request 14: Referring to the CAR 5 and CR 3, the emission factor of the defined grid needs to be revised, hence, baseline emissions rate, annual baseline emissions, annual emission reductions shall be updated. Moreover, the crediting period is expected to start at the end of Year 2007.	F.3.3.	Revised as DOE’s requirement in PDD.	þ
Clarification Request 1: Introduced by the project owner and verified on site, the installation of the recovery and generation system at phase 1 has been accomplished. The electricity generation is still	A.2.1.	Revised as DOE’s requirement in PDD.	þ

on construction and is expected in the second half of Feb. The start date of power generation would be in June, 2007. The emission reductions in the crediting period are calculated accordingly. However, please add a time schedule of the project activity into the revised PDD.			
Besides ACM0004 and AM0024 "Baseline methodology for greenhouse gas reductions through waste heat recovery and utilisation for power generation at cement plants" seems also to be applicable. However, the project activity fulfils the applicability criteria of ACM0004. Hence, the project developer choose this methodology. If this methodology is the latest one and refers to the latest revision of ACM0002 the DOE agrees with the project developer that this will be the more appropriate methodology. <u>Clarification Request 2:</u> During the site visiting, the auditor has verified that no fuel switch is done in the process while implementing the project activity. Pls. add such statement into the revised PDD to complete the applicability criteria.	B.2.1.1.	Revised as DOE's requirement in PDD.	þ
<u>Clarification Request 3:</u> - Pls. deliver the official source of CO_2 Emission Factor of imported electricity in Year 2002, 2003 and 2004 to the validator. - Referring to CAR 5, the CM needs to be re-calculated and a larger figure is	B.4.5.	Revised as DOE's requirement in PDD. Attached the baseline calculation of 6 Projects	þ

expected. On the other hand, NDRC has published the OMs and BMs for each regional grid on Dec. 15th, 2006 at the NDRC website for reference use. Hence, the OM, BM of this project should be checked with the published ones and the more conservative data shall be used for emission reduction estimation.			
The project owner has to face both technology and investment barriers which are demonstrated in the PDD. Even though there are several local equipment suppliers, as introduced by the project owner, the working efficiency of key apparatus and operation systems are still much lower than the imported ones. For this project, the owner choose Kawasaki Heavy Industries Ltd. as supplier and designer. Through reviewing the technical description of the operation system and the core equipments, which are part of the purchasing contract, it has been verified that more maintenance and operation difficulties are expected. <u>Clarification Request 4:</u> During the audit, some preventive actions have been introduced to ensure that the power plant could reduce the GHG emission as expected, such as specific instruments fixed to boilers and additional training provided to the operators. Pls. add the related information into the PDD.	B.5.8.	Revised as DOE's requirement in PDD.	þ Verified by the local auditor.

Yes, the relevant stakeholders have been consulted via an open public meeting dated on July 12th, 2006. The local government officers and residents were invited. In the meeting, the project activity, the CDM scheme and environmental impacts have been introduced by Chizhou Cement Plant. Clarification Request 5: The description on how the meeting was organized, which approach is used to invite stakeholders, how many persons have attended, etc. shall be included in the revised PDD.	E.1.1.	**PP's Response:** The processing regarding stakeholder meeting has been detailed in PDD, please check PDD in page 39. **DOE's second response:** What emission reductions are mentioned on page 39? They should be according to the emissions mentioned in A4.4; B6.4. PP's Response: Annual emission reduction in page 39 has been changed to 185,102 which is consistent with A.4.4 and B.6.4	þ The project emissions are consistent through out the PDD þ The description on how the meeting was organized has been added to the PDD.

Annex 2: Information Reference List

Reference No.	Document or Type of Information
1	Project Design Document for CDM project "Waste Heat Recovery and Utilization for Power Generation Project of Chizhou Conch Cement Company Limited", version 01, submitted in Nov. 29th, 2006
2	Consolidated baseline methodology for waste gas and/or heat and/or pressure for power generation, version 02
3	Consolidated baseline methodology for grid-connected electricity generation from renewable sources, version 06
4	Tool for the demonstration and assessment of additionality, version 02
5	Participant list of on-site interview, signed on Jan. 19th, 2007
6	Validation team: Cuiyun Zhang Jiangsu TUV Product Service Ltd. On-site interviews and inspection at the office conducted on Jan. 19th, 2007 by validators of TÜV SÜD. Interviewed persons: Mr. Sun Hai — Anhui conch Cement Company Limited — Department Manager Mr. Chen Qian — Chizhou Conch Cement Company Limited — Deputy Directing Manager Mr. Wu Tiejun — Chizhou Conch Cement Company Limited — Production Manager Mr. Hou Min — Chizhou Conch Cement Company Limited — Project Manager Mr. Huang Congwang — Chizhou Conch Cement Company Limited — Project Manager Mr. Cheng Jian — Chizhou Conch Cement Company Limited — Chief Operator Mr. Yang Nianjiu — Chizhou Conch Cement Company Limited — Coordinator Ms. Sophie Chou — CAMCO International Ltd. — CDM Project Manager Mr. Zhang Peng — CAMCO International Ltd. — CDM Project Manager Mr. Liu Liang — CAMCO International Ltd. — Consultant
7	Feasibility report of Waste Heat Recovery and Utilization for Power Generation Project of Chizhou Conch Cement Company Limited, dated in July, 2005, SINOMA, submitted on Jan. 19th, 2007
8	Approval of feasibility report of Waste Heat Recovery and Utilization for Power Generation Project of Chizhou Conch Cement Company Limited, dated on Aug. 15th, 2005, Anhui Province Development and Reform Commission, submitted on Jan. 19th, 2007

Reference No.	Document or Type of Information
9	Notice on Strictly Prohibiting the Installation of Fuel-fired Generators with the Capacity of 135MW or below, State Council office, submitted on Jan. 05th, 2007
10	The notice of national NDRC on closures of small scale thermal power generation units transmitted by State Council Office, issued by State Council Office in 1999 with issued No. 44, CAMCO International Ltd., submitted on Jan. 05th, 2007
11	The notice on preparing important and big projects as well as leading example projects for power saving, water saving of comprehensive use of resources as well as existing power plant with desulfurizing equipment issued by General Office of NDRC, CAMCO International Ltd., submitted on Jan. 05th, 2007
12	Technical Specification of Waste Heat Recovery and Utilization for Power Generation Projects of Chizhou Conch Cement company Limited, dated in Jan., 2007, Chizhou Conch Cement Company Limited and KAWASAKI Heavy Industries, Ltd., submitted on Jan. 19th, 2007
13	Purchasing contract of HP boilers for both 5000t/d production lines and 8000t/d production line, dated in Jan., 2005, Chizhou Conch Cement Company Limited and Kawasaki Heavy Industries, Ltd., submitted on Jan. 19th, 2007
14	Purchasing contract of AQC boiler for both 5000t/d production lines and 8000t/d production line,, dated on Mar. 11th, 2006, Chizhou Conch Cement Company Limited and Jiangsu Nantong Wanda Boiler Co., Ltd., submitted on Jan. 19th, 2007
15	Purchasing contract of turbine and generator for 5000t/d production lines, dated on June 8th, 2005, Chizhou Conch Cement Company Limited and Nanjing Steam Turbine Co., Ltd., submitted on Jan. 19th, 2007
16	Purchasing contract of turbine and generator for 8000t/d production line, dated on June 18th, 2005, Chizhou Conch Cement Company Limited and Nanjing Steam Turbine Co., Ltd., submitted on Jan. 19th, 2007
17	Agreement of connection to grid and electricity management, dated in Nov., 2006, Chizhou Power Company, submitted on Jan. 19th, 2007
18	Draft electricity connection system to grid, Chizhou Conch Cement Company Limited and Chizhou Power Company, submitted on Jan. 19th, 2007
19	Management agreement of electricity, Chizhou Conch Cement Company Limited and Chizhou Power Company, submitted on Jan. 19th, 2007

Reference No.	Document or Type of Information
20	Application of Bank Loan, Chizhou Conch Cement Company Limited, submitted on Jan. 19th, 2007
21	Release of Bank Loan (2006-308), Bank of China, submitted on Jan. 19th, 2007
22	Wire-transfer from Bank of China to Chizhou Conch Cement Company Limited, submitted on Jan. 19th, 2007
23	Price Policy of electricity fed to grid and electricity tariff (2006-191), Price Bureau of Anhui Province, submitted on Jan. 19th, 2007
24	Carbon emission factor spreadsheet, CAMCO International Ltd., submitted on Jan. 19th, 2007
25	China Electric Power Yearbook 2003-2005, submitted on Jan. 19th, 2007
26	China Energy Statistical Yearbook 2000-2005, submitted on Jan. 19th, 2007
27	Payment evidence of VAT and Duty of boliers, Chizhou Conch Cement Company Limited, submitted on Jan. 19th, 2007
28	Training record of operation and maintenance, Chizhou Conch Cement Company Limited, submitted on Jan. 19th, 2007
29	EIA of Waste Heat Recovery and Utilization for Power Generation Project of Chizhou Conch Cement Company Limited, dated on Mar. 1st, 2005, Anhui Science and Technology Consulting Company, submitted on Jan. 19th, 2007
30	Approval of EIA, date on May 8th, 2005, Anhui Environment Protection Bureau, submitted on Jan. 19th, 2007
31	Summarization report of local stakeholder process (including participant list), dated on July 12th, 2006, Chizhou Conch Cement Company Limited, submitted on Jan. 19th, 2007
32	Digital photos of stakeholder meeting, Chizhou Conch Cement Company Limited, submitted on Jan. 19th, 2007
33	Revised PDD of "waste Heat Recovery and Utilisation for Power Generation Project of Chizhou Conch Cement Company Limited", version 05, updated on Nov. 20th, 2007
34	Invitation of the bidding for developing the Conch projects as per CDM, dated on Nov. 21st, 2005, Anhui conch Cement Company Limited
35	Meeting Minutes Of CDM Project Between Clear World Energy and Hailuo Cement Corporation, dated in December 2005, CAMCO International Ltd.
36	China Energy Efficiency Financing Project Report issued by World Bank, dated in December 2006
37	'Corporate Finance (four edition)', writers: Rechard, P. and Bill, N.

Reference No.	Document or Type of Information
38	Financial Statement of 2003, 2004, 2005, issued by Anhui conch Cement Company Limited
39	Feasibility Study Report of the 5000t/d Clinker Cement Production Retrofit Engineering of Zongyang Conch Cement Company Limited
40	Feasibility Study Report of the 5000t/d Clinker Cement Production Retrofit Engineering of Digang Conch Cement Company Limited
41	Feasibility Study Report of the 4000t/d Clinker Cement Production Retrofit Engineering of Baimashan Conch Cement Company Limited
42	Feasibility Study Report of the 4000t/d Clinker Cement Production Retrofit Engineering of Huaining Conch Cement Company Limited
43	WACC calculation of Anhui conch Cement Company Limited
44	Security Times dated June 22nd, 2005
45	The circular on issuing Cement Industry Development Plan, Fazhangongye NO.2222, 2006
46	The current situation of restructuring of cement industry and existing problems, NDRC, dated Oct. 11, 2005
47	The circular of come opinions from National Development and Reform Commission and other ministries on stopping bind investment in iron and steel, electrolytic aluminium and cement industry transmitted by office of State Councile, Guobanfa No. 103, 2003
48	Feasibility Study Report of 5500t/d Clinker Production Line of Jiangsu United Cement Company Ltd.
49	Feasibility Study Report of 2*4500t/d clinker production line of Tongshan Copper Mine, Tongling Nonferrous metal Group
50	Feasibility Study Report of 2*5000t/d Clinker Production Line of Taiwan Cement Company Ltd.
51	Feasibility Study Report of upgrading project with 4000t/d Clinker Production Line of Shanggao Hongshi Cement Company Ltd.
52	Feasibility Study Report of 4500t/d Clinker Production Line with a new dry approach of Hezhou Datong Cement Ltd.
53	Feasibility Study Report of 4500t/d Clinker Production Line of Huarun Cement Company Ltd.
54	China Energy Efficiency Financing Project; Report for World Bank; dated Dec 31th; 2006; Tokyo Energy Efficiency Group
55	Report on China- Japan CDM Workshop; dated 27th September 2004
56	Request for Instructions on Waste Heat Power Generation-Related CDM Projects of the Second Phase of Ningguo Cement Plant,

Reference No.	Document or Type of Information
	Chizhou Conch Cement Plant and Zongyang Conch Cement Plant; dated 29th November 2004
57	Levilized cost analysis od Conch Chizhou project, submitted on 30th June 2008
58	The Resolution of the ACCCL Board on the Development Strategy of ACCCL during the Tenth Five-year Plan of China Social & Economic Development and the Company Internal Benchmark for the Investments, dated on 19th January 2003
59	FSR for Phase I 4000t/d cement clinker line of Beiliu conch cement Company Limited
60	FSR for 4x4500 t/d Cement Clinker Production Retrofit project of Chizhou Conch Cement Company Limited
61	FSR for Phase II 2×4500t/d Cement Clinker Production Retrofit project Wuhu Conch Cement Company Limited
62	FSR for 2x4500t/d clinker line of Digang conch cement Company Limited (phase III)
63	FSR for Phase I 2x5000t/d clinker line of Wuhu conch cement Company Limited
64	FSR for 1.65 million tone/a cement grinding line of Taizhou conch cement Company Limited
65	FSR for Phase I 2×5000t/d cement clinker line of Xuancheng conch cement Company Limited
66	FSR for FSR of 10000 t/d Clinker Cement Production line Retrofit Engineering of Tongling Conch Cement Company Limited
67	FSR for 4000 t/d Clinker Cement Production Line Retrofit Engineering of Baimashan Conch Cement Company Limited