
VALIDATION REPORT

**Kamachi Sponge & Power Corporation
Limited (KSPCL)**

**KSPCL WASTE HEAT TO POWER
PROJECT, INDIA**

SGS Climate Change Programme

SGS United Kingdom Ltd
SGS House
217-221 London Road
Camberley Surrey
GU15 3EY
United Kingdom

Date of issue:	Project No.:
02-04-2007	CDM.Val0812
Project title	Organisational unit:
KSPCL Waste Heat to Power project, India	SGS Climate Change Programme
Revision number	Client:
0	Kamachi Sponge & Power Corporation Limited (KSPCL)

Summary

SGS India Pvt. Ltd., an affiliate of SGS United Kingdom Ltd. has made a validation of the CDM project activity "KSPCL Waste Heat to Power project, India" by Kamachi Sponge & Power Corporation Limited (KSPCL), on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The scope of validation is the independent and objective review of the project design document, baseline study and monitoring plan and other relevant document of the project. The information in this document is reviewed against the criteria defined in the Marrakech Accords (Decision 17) and the Kyoto Protocol (Article 12) and subsequent guidance from the CDM Executive Board.

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

The overall validation process, from Contract Review to Validation Report & Opinion, was conducted using internal procedures (UK.PP.12 issue 3 dated 19/01/2007).

The first output of the validation process is a list of Corrective Actions Requests and New Information Requests (CAR and NIR), presented in Annex 2 of this document. Taking into account this output, the project proponent revised its project design document.

In summary, it is SGS's opinion that the proposed CDM project activity correctly applies the baseline and monitoring methodology as mentioned in approved methodology adopted for the proposed project activity and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

Subject.:		
CDM validation		Indexing terms
Work carried out by		
Mr. Sanjeev Kumar - Lead Assessor Mr. Pankaj Mohan - Assessor Mr. Nikunj Agarwal - Local Assessor		
Technical review		
Jochen Gross		<input checked="" type="checkbox"/> No distribution without permission from the Client or responsible organisational unit
Authorized signatory		
Siddharth Yadav		<input type="checkbox"/> Limited distribution
Date of final decision: 03/08/2007	Number of pages: 36	<input type="checkbox"/> Unrestricted distribution

Abbreviations

ABC	After Burning Chamber
BAU	Business as Usual
BM	Built Margin
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CM	Combined Margin
CO₂	Carbon di-oxide
CPP	Captive Power Plant
DCS	Distributed Control System
DPL	Durgapur Projects Limited
DRI	Direct Reduced Iron
DVC	Damodar Valley Corporation
EF	Emission Factor
EIA	Environmental Impact Assessment
ESP	Electro Static Precipitator
FBC	Fluidized Bed Combustion
FO	Furnace Oil
GHG	Greenhouse Gas
GWh	Giga Watt hour
IOB	Indian Overseas Bank
IPCC	Intra-governmental Panel for Climate Change
IREDA	Indian Renewable Energy Development Agency
kCal	Kilo Calories
km	Kilo metres
KV	Kilo Voltage
KW	Kilo Watt
kWh	Kilo Watt hour
LDO	Light Diesel Oil
M&V	Monitoring and Verification
MkWh	Million Kilo Watt hour
MNES	Ministry of Non-conventional Energy Sources
MT	Metric Tonne
MTPA	Metric Tonne Per Annum
MTPD	Metric Tonnes Per Day
MW	Mega Watt
MWh	Mega Watt hour
NOC	No Objection Certificate
OM	Operating Margin
PLF	Plant Load Factor
SEB	State Electricity Board
SI	Sponge Iron
SPM	Suspended Particulate Matter
STG	Steam Turbine Generator
T & D	Transmission and Distribution
TJ	Tera Joules
tph	Tonnes Per Hour
UNFCCC	United Nations Framework Convention on Climate Change
WHR	Waste Heat Recovery

WHRB	Waste Heat Recovery Boilers
WHRSGS	Waste Heat Recovery Steam Generation System

Table of Content

Table of content	5
1. Introduction.....	6
1.1 Objective	6
1.2 Scope	6
1.3 GHG Project Description	6
1.4 The names and roles of the validation team members	6
2. Methodology.....	8
2.1 Review of CDM-PDD and additional documentation	8
2.2 Use of the validation protocol	8
2.3 Findings	8
2.4 Internal quality control	9
3. Determination Findings	9
3.1 Participation requirements	9
3.2 Baseline selection and additionality	9
3.3 Application of Baseline methodology and calculation of emission factors	10
3.4 Application of Monitoring methodology and Monitoring Plan	11
3.5 Project design	11
3.6 Environmental Impacts	11
3.7 Local stakeholder comments	11
4. Comments by Parties, Stakeholders and NGOs	11
4.1 Description of how and when the PDD was made publicly available	12
4.2 Compilation of all comments received	12
4.3 Explanation of how comments have been taken into account	12
5. Validation opinion	12
6. List of persons interviewed	13
7. Document references	13

Annex 1: Local assessment

Annex 2: Validation Protocol

Annex 3: Overview of findings

Annex 4: Statement of Competency of Validation Team Members

1. Introduction

1.1 Objective

Kamachi Sponge & Power Corporation Limited (KSPCL) has assigned SGS to perform the validation of the project: "KSPCL Waste Heat to Power project, India" with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

1.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

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.

1.3 GHG Project Description

The primary purpose of the proposed project is to recover the sensible heat content of the waste gases generated from sponge iron kilns using Waste Heat Recovery Boilers (WHRBs) to generate power. The generated power will substitute grid power to meet the process requirement of KSPCL steel plant.

Baseline Scenario:

Under the baseline scenario, the project activity thus displaces equivalent amount of electricity from grid which is predominantly generated from thermal (fossil fuel based) power plants.

With Project Scenario:

The project activity uses waste heat generated by waste gas as fuel for generation of power, which in turn contributes to conservation of fossil fuel and reduces GHG emissions.

Leakage:

As per the methodology ACM0004 version 2; no leakage is to be considered.

Environmental & Social Impacts:

According to EIA provided to local assessor, it was checked and concluded that there is no negative environmental and social impact expected due to the project activity.

The names and roles of the validation team members

Name	Affiliate	Role
Sanjeev Kumar	SGS India	Lead Assessor
Pankaj Mohan	SGS India	Assessor
Nikunj Agarwal	SGS India	Local Assessor
Jochen Gross	SGS Germany	Technical Reviewer

Statement of Competency of the team members are attached at Annex IV

2. Methodology

2.1 Review of CDM-PDD and additional documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

A site visit is usually required to verify assumptions in the baseline. Additional information can be required to complete the validation, which may be obtained from public sources or through telephone and face-to-face interviews with key stakeholders (including the project developers and Government and NGO representatives in the host country). These may be undertaken by the local SGS affiliate. The results of this local assessment are summarized in Annex 1 to this report.

2.2 Use of the validation protocol

The validation protocol used for the assessment is partly based on the templates of the IETA / World Bank Validation and Verification Manual and partly on the experience of SGS with the validation of CDM projects. It serves the following purposes:

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation.

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
<i>The various requirements are linked to checklist questions the project should meet.</i>	<i>Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.</i>	<i>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.</i>	<i>This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). New Information Request (NIR) is used when the validation team has identified a need for further clarification.</i>

The completed validation protocol for this project is attached as Annex 2 to this report

2.3 Findings

As an outcome of the validation process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR)**. A

CAR

is issued, where:

- I. mistakes have been made with a direct influence on project results;
- II. validation protocol requirements have not been met; or
- III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form (Annex 3). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

2.4 Internal quality control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

3. Determination Findings

3.1 Participation requirements

The host Party for this project is India. India has ratified the Kyoto protocol on 26th Aug 2002. A Letter of Approval was missing so CAR01 was raised. The project proponent provided the letter dated 22nd January 2007; issued by the Indian DNA (reference number 4/21/2006-CCC) has been provided by the client which was verified from the original copy. Hence CAR01 was closed out.

No Annex I Party has been identified in the PDD and therefore no further Letter of Approval was available. It is observed that the CDM EB has agreed that the registration of a CDM project activity can take place without an Annex I Party being involved at the stage of registration although it should be noted that before CER can be transferred to an Annex I Party, a Letter of Approval will need to be submitted.

3.2 Baseline selection and additionality

The project has applied the Approved Consolidated baseline methodology for waste gas and/or heat and/or pressure for power generation" ACM0004 version 2 dated 3rd March 2006. The baseline selected by the project proponent was the most likely baseline scenario. The plant is producing the electricity for captive use and would have purchased the same from the grid in absence of project activity.

The project additionality was determined on the basis of investment analysis followed by technological barriers and Barriers due to prevailing practice.

CAR 4 was raised in order to get all the related documents on which basis the project was shown additional. The project proponent replied by providing the proof of Investment analysis and also the excel sheet. The project proponent is using sub step 2b option II i.e. unit cost of service (e.g., levelized cost of electricity production in Rs./kWh) as per the tool of demonstration of additionality version 03. The project proponent is generating electricity at the cost of 1.97 Rs. Per unit from the project activity while the electricity generation from the coal based power generation is 1.56 Rs. Per unit. This analysis shows that power generation using waste heat from DRI kiln is not the most economical option. Cost of per unit power generation from WHRB is higher compared to coal.

The project proponent told during discussions as well that the cost of WHRB is higher because of following reasons

- ♦ High capital cost compared to AFBC as 4 boilers are required for 4 kilns which further escalates the project cost which is not required for coal based power project because one large size boiler could be utilised for the same.
- ♦ Low plant load factor (due to various factors related to availability of waste gas which in turn depend upon operating performance of DRI kiln).

It was also told that the project proponent did not went for the coal based power plant as it emits CO₂ and pollutes the environment though it is economical.

The proof i.e Purchase orders, DPR etc provided along with excel sheet was checked during the desk review and found to be in order.

The technological barrier is the supporting barrier only and this was verified during the site visit that the technological barriers do exist and the JPC report provided by the project proponent was also desk reviewed and found to be in order and hence it was accepted by the local assessor.

The Project proponent provided documentary evidence ("Survey of the Indian Sponge Iron Industry: 2005-06" by Joint Plant Committee) constituted by Government of India, for the common practice analysis also. This was also mentioned in the PDD; the same was verified by the local assessor and hence the CAR04 was closed out.

3.3 Application of Baseline methodology and calculation of emission factors

The proposed CDM project activity is the power generation using sensible heat content of the waste gases generated from sponge iron kilns to generate power and uses baseline methodology as described under Type ACM0004 version 02 dated 3rd March 2006 as per large scale CDM project activities.

The emission reduction calculation sheet was not provided with the PDD and hence the NIR03 was raised. Responding to NIR03 project proponent provided the calculations for emission reduction. It was checked by the local assessor and found that the emission reductions are calculated in accordance with the methodology ACM0004. The local assessor checked the background information used for arriving at the value selected as benchmark for baseline emissions during the site visit. Also the calculations for baseline activity are included in emission reduction calculation spreadsheet. The baseline emission calculations and emission reductions were found to be in order during the desk review and during the local assessments at the site. The actual emission reduction figures would further be checked during verification. The NIR03 was closed out.

The baseline grid emission factor was 0.850 tCO₂e/ MWh in the version 01 of the PDD, but in the revised PDD, the project proponent was using the emission factor as 0.860 tCO₂e/MWh, so NIR 03 was raised, The project proponent then replies that baseline grid emission factor has changed from 0.85 to 0.86 tCO₂/ MWh for Southern Region (SR) grid as per the latest report of Central Electricity Authority on grid emission factors. The same was verified through the web link <http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm>

Hence this NIR03 was closed out.

3.4 *Application of Monitoring methodology and Monitoring Plan*

The present CDM project activity uses monitoring methodology as described in ACM0004 version 02 dated 3rd March 2006 as per CDM project activities.

NIR 06 was raised as the PDD was not clear on monitoring plan of the parameters measured and nothing was mentioned about Reporting, Training, Internal Audit, Emergency preparedness, Calibration, Maintenance, day to day record handling and corrective actions. The project proponent in his response made all necessary corrections required and all the necessary parameters have been included in the monitoring plan given in the rephrased PDD. This was accepted and hence NIR06 was closed out.

Observations: The meters which will be used for monitoring of total electricity was not installed during the time of validation and the same has to be checked during verification.

3.5 *Project design*

The Project Design Document (PDD) was designed as per version 03.1 of guidelines laid for preparing PDD of large scale CDM project activity hence the format of the present PDD was checked against it.

The project boundary given in the PDD was not clear and hence NIR02 was raised for the same. The project proponent made required corrections in the project boundary and same are included in the revised PDD, this was also verified during site visit by the local assessor and hence NIR02 was closed out.

CAR 15 was raised as the evidence for Starting Date of project activity was not provided to the validator. The project Proponent then provides the contract agreement with AREVA, the technology supplier in the project activity. The starting date was checked from this contract agreement and was found satisfactory, hence this CAR 15 was closed out.

Observations: The turbine was not installed at the time of site visit while the purchase order for the same has been provided by the project proponent.

3.6 *Environmental Impacts*

The compliance with local environmental regulations in that EIA requirement for the project activity was checked and also project proponent did not submitted EIA report to the validator, so the NIR 07 was raised, the project proponent then submitted the EIA report to the validator which was checked regarding the Environmental Impacts on various parameters like Air quality, Water, Land, Noise generation and ecology and benefits to these parameters due to project activity as mentioned in table under section D in the PDD. These were in compliance and even during site visit, no negative comment was seen or reported. So the NIR 07 was closed out.

3.7 *Local stakeholder comments*

The CAR08 & CAR09 were raised as the list of relevant stakeholders consulted and the media used to invite comments by local stakeholders was not clear in the PDD. Also NIR 10 was raised because the minutes of meeting of stakeholder consultation process was not discussed in the PDD. The project proponent then provide the detailed information of stakeholder consultation process discussed and copies of advertisement published, letters sent to panchayat, district authorities and minutes of meeting of the stakeholder consultation conducted were provided to DOE during site visit . The same was checked and verified during site visit and hence the CAR08, CAR09 & NIR10 were closed out.

The CAR11 & CAR12 were raised as the Summary of stakeholder comments and due account of stakeholder comments taken was not mentioned in the PDD clearly. The project proponent then incorporated the same in the revised PDD and also provides the supporting document for the same (i.e. MoM of stakeholder meeting), so these CARs were closed out.

4. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this project.

4.1 Description of how and when the PDD was made publicly available

The PDD and the monitoring plan for this project were made available on the UNFCCC website <http://cdm.unfccc.int/Projects/Validation/DB/YIC1YIT893D8B1PMDNLHT0OEO8ZQSO/view.html>

and were open for comments from 3rd February 2007 to 4th March 2007. Comments were invited through the UNFCCC CDM homepage.

4.2 Compilation of all comments received

The project was up loaded for International stakeholder consultation (ISHC) for a period of 30 days and received zero comments.

4.3 Explanation of how comments have been taken into account

No comments were received.

5. Validation opinion

SGS has performed a validation of the project: “KSPCL Waste Heat to Power project, India”, at Tiruvallur District, Tamilnadu by Kamachi Sponge & Power Corporation Limited (KSPCL). The Validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

Using a risk based approach, the review of the project design documentation and the subsequent follow-up interviews have provided SGS with sufficient evidence to determine the fulfilment of the stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project will hence be recommended by SGS for registration with the UNFCCC.

SGS has received confirmation by the host Party that the project activity assists it in achieving sustainable development.

By utilizing waste heat for generation of electricity, the project results in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change. A review of the Investment analysis and technological barriers 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. The project is already implemented and is likely to achieve the estimated amount of emission reductions.

The validation is based on the information made available to SGS and the engagement conditions detailed in the 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 SGS 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.

The DOE declares herewith that in undertaking the validation of this proposed CDM project activity it has no financial interest related to the proposed CDM project activity and that undertaking such a validation does not constitute a conflict of interest which is incompatible with the role of a DOE under the CDM.

6. List of persons interviewed

Organization	Person interviewed
Kamachi Sponge & Power Corporation Limited	Mr. Sunil Patodia – Managing Director
Emergent Ventures India Pvt. Ltd	Mr. Atul Sanghal - Consultant
	Mr. G. Shekhar – Local Resident

7 Document references

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

- /1/ Letter of Approval
- /2/ Modalities of communication
- /3/ PDD version 1.0 dated 2nd January 2007 (web hosted)
- /4/ PDD version 1.1 dated 15th March 2007
- /5/ PDD version 1.2 dated 15th March 2007
- /6/ PDD version 1.3 dated 29th March 2007
- /7/ PDD version 1.4 dated 21st May 2007
- /8/ PDD version 1.5 dated 30th May 2007
- /9/ PDD version 1.6 dated 2nd August 2007 (Present)

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

- /1/ ER Calculation sheet
- /2/ Loan Information(supporting documents)
- /3/ Local Stakeholder comments
- /4/ Other documents
- /5/ Pollution control board certificates
- /6/ Proof of starting date
- /7/ Supporting document ISHC
- /8/ ACM0004 version 2 dated 3rd March 2006

Annex 1

TABLE 12 ADDITIONAL INFORMATION TO BE VERIFIED BY LOCAL ASSESSORS / SITE VISIT

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Project emissions are taken as zero. To be checked during site visit for any fossil fuel is used for generation start-up, or to provide additional heat gain before entering the waste heat recovery boiler.			There is no fossil fuel consumption for WHRB project to provide additional heat gain before entering the WHRB.	Y	Y
Monitoring Plan for Baseline emissions and project emissions to be checked during site visit.			Monitoring Plan is OK and in line with methodology.	Y	Y
Emission reduction excel sheet to be checked.			Emission reduction excel sheet is checked for each and every formula and found to be OK.	Y	Y
Project boundary to be checked.			Project boundary is clear after NIR 2 and checked during site visit it was in line with methodology.	Y	Y
Local stakeholder comments needs to be checked during site visit.			Local stakeholder comments were verified during site visit and no negative comments reported or seen during the site visit. MOM received was also checked during site visit.	Y	Y
MoM of board meeting in which CDM was considered for the project activity. To be verified during site visit.			Project proponent submitted the MOM of board meeting which were also verified by seeing the original copy and also interviewing the Managing Director.	Y	Y
It is required to be checked whether the project technology used is likely to be substituted by other or more efficient technologies within the project period.			Project proponent submitted an undertaking that the project activity will not be substituted by other or more efficient technologies within the project period.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Environmental impacts reported to be checked and verified.			<p>No negative environmental impacts either reported by the local stakeholders or seen during site visit.</p> <p>As per As per the validation protocol no negative comment was reported or seen during local stakeholder consultation.”</p>	Y	Y

Annex 2

TABLE 1 PARTICIPATION REQUIREMENTS FOR CLEAN DEVELOPMENT MECHANISM (CDM) PROJECT ACTIVITIES (REF PDD, LETTERS OF APPROVAL AND UNFCCC WEBSITE)

REQUIREMENT	Ref	MoV	Comment	Draft finding	Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	PDD	DR	No funding of Annex I party available Project can proceed as unilateral project	Y	Y
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	PDD	DR	The project activity is likely to contribute to sustainable development. Letter of approval from Host Country (India) Designated National Authority (DNA) to be submitted by the project proponent	CAR 1	Y
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	PDD	DR	Project is unilateral and India has ratified the protocol on 26 th August 2002 and is allowed to participate. http://unfccc.int/parties_and_observers/parties/items/2109.php	Y	Y
1.4 The project results in reductions of GHG emissions or increases in sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario	PDD	DR	Yes the project activity result in reduction of GHG emissions as it uses waste heat generated by waste gas for the generation of electricity.	Y	Y

REQUIREMENT	Ref	MoV	Comment	Draft finding	Concl
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available	PDD	DR/ UNFCCC Web-site	Yes, the project is listed on UNFCCC website from 3 rd February 2007 to 4 th March 2007. http://cdm.unfccc.int/Projects/Validation/DB/YIC1YIT893D8B1PMDNLHT0OEO8ZQSO/view.html The project was also listed on SGS climate change website from 3 rd February 2007 to 4 th March 2007. http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=203 Number of comments received - 0	Pending	Y
1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance	PDD	DR	Project has used version 03.1 of PDD and followed the guidelines, except pending closure of some CARs/ NIRs.	Pending closure of CARs/ NIRs	Y
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	PDD	DR	No ODA has identified in PDD. Annex 2 of PDD does not give any information on ODA. Records to be checked during Site visit.	Site Visit	Y
1.8 For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?	PDD	DR	Not relevant as the project is not an AR project.	Not Applicable	Y
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects	PDD	DR	Not applicable	Not applicable	Y

REQUIREMENT	Ref	MoV	Comment	Draft finding	Concl
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment?	PDD	DR	The version of PDD used by project proponent present all the information, except pending closure of some CARs/ NIRs.	Pending	Y
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?	PDD	DR	The PDD uses reliable information except pending closure of some CARs/ NIRs..	Pending	Y

TABLE 2 BASELINE METHODOLOGY(IES) (REF: PDD SECTION B AND ANNEX 3 AND AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.1 Does the project meet all the applicability criteria listed in the methodology?	PDD	DR	Project meets all applicability criteria as per the approved consolidated baseline methodology ACM0004 version 2.0, dated 03 March 2006.	Y	Y
2.2 Is the project boundary consistent with the approved methodology?	PDD	DR	The Project boundary is not clear in the PDD.	NIR 2	Y
2.3 Are the baseline emissions determined in accordance with the methodology described?	PDD	DR	Excel spreadsheet for the calculation of baseline emissions to be provided by the Project Proponent.	NIR 3	Y
2.4 Are the project emissions determined in accordance with the methodology described?	PDD	DR	Project emissions are taken as zero. To be checked during site visit for any fossil fuel is used for generation start-up, or to provide additional heat gain before entering the waste heat recovery Boiler.	Site Visit	Y
2.5 Is the leakage of the project activity determined in accordance with the methodology described?	PDD	DR	Leakage is not considered as described in the Methodology ACM0004.	Y	Y
2.6 Are the emission reductions determined in accordance with the methodology described?	PDD	DR	Calculations are to be checked from the excel sheet. Pending NIR 3	Pending	Y

Table 3Additionality (Ref: PDD Section B5 and AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.1 Does the PDD follow all the steps required in the methodology to determine the additionality?	PDD	DR	Yes, the PDD follow all the steps required in the methodology to determine the additionality.	Y	Y
3.2 Is the discussion on the additionality clear and have all assumptions been supported by transparent and documented evidence?	PDD	DR	<p>The discussion on additionality is not clear in the PDD.</p> <p>Step 2 :- Please provide documentary evidence for Investment analysis.</p> <p>Please provide IRR calculation sheet along with sensitivity analysis sheet..</p> <p>Step 3: - All The barriers mentioned in these steps are not transparent. Needs to be supported by documentary evidences.</p> <p>Step 4: - common practice analysis is not clear and supporting documentation is to be provided.(provide the list of existing sponge iron plants in Tamilnadu)</p> <p>How CDM will mitigate the Investment analysis Risk & barrier Analysis risk. Explain and provide relevant documentation.</p>	CAR4	Y
3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD	DR	The baseline selected is the most likely scenario.	Y	Y
3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario?	PDD	DR	Pending closure of CARs & NIRs.	Pending	Y

Table 4 Monitoring methodology (PDD Section B.7 and AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
4.1 Does the project meet all the applicability criteria listed in the monitoring methodology	PDD	DR	Project meets all the applicability criteria listed in the monitoring methodology ACM0004 version 2.0, dated 03 March 2006.	Y	Y
4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology?	PDD	DR	Yes the PDD provide the monitoring of the baseline emissions as required in the monitoring methodology ACM0004 version 2.0, dated 03 March 2006.	Y	Y
4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology?	PDD	DR	Project emissions are taken as zero, same has to be checked during site visit. So Monitoring plan is also not mentioning the Project emissions.	Site Visit	Y
4.4 Does the PDD provide for the monitoring of the leakage as required in the monitoring methodology?	PDD	DR	As per the methodology the leakage is not considered so there is no requirement of monitoring the leakage	Y	Y
4.5 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology?	PDD	DR	PDD does not provide relevant information on Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology.	CAR5	Y

Table 5 Monitoring plan (PDD Annex 4)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1 Monitoring of Sustainable Development Indicators/ Environmental Impacts	PDD	DR	EIA is carried out by the project proponent and mentions the environmental impacts in the PDD. Copy of EIA to be checked during site visit. Pending CAR1	Pending	Y
5.1.1 Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	PDD	DR	Not Applicable	Not Applicable	
5.1.2 Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?	PDD	DR	Not Applicable	Not Applicable	
5.1.3 Will it be possible to monitor the specified sustainable development indicators?	PDD	DR	Not Applicable	Not Applicable	
5.1.4 Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD	DR	Pending CAR1	Pending	Y
5.2 Project Management Planning				NIR 6	Y
5.2.1 Is the authority and responsibility of project management clearly described?	PDD	DR	The authority and responsibility of project management is described in PDD.	Y	Y
5.2.2 Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR	Yes, the authority and responsibility for registration, monitoring, measurement and reporting is described in PDD.	Y	Y
5.2.3 Are procedures identified for training of monitoring personnel?	PDD	DR	Procedure identified for training of monitoring personnel is not mentioned in PDD.	Pending NIR 6	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.2.4 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR	No specific procedure for emergency preparedness is identified in the monitoring plan given in the PDD.	Pending NIR 6	Y
5.2.5 Are procedures identified for calibration of monitoring equipment?	PDD	DR	Yes, the calibration of monitoring equipments is clearly mentioned in Section B.7.2 of the PDD.	Y	Y
5.2.6 Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	Yes, specific procedure is identified for maintenance of monitoring equipment and installations in the Section B.7.2 of the PDD.	Y	Y
5.2.7 Are procedures identified for monitoring, measurements and reporting?	PDD	DR	Yes, specific procedure is identified for monitoring, measurements and reporting in the Section B.7.2 of the PDD.	Y	Y
5.2.8 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR	Yes, procedures are identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation) in the annex 4 of the PDD.	Y	Y
5.2.9 Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD	DR	No specific procedure is identified for dealing with possible monitoring data adjustments and uncertainties in the monitoring plan given in the PDD.	Pending NIR 6	Y
5.2.10 Are procedures identified for review of reported results/data?	PDD	DR	No specific procedure is identified to review reported results/ data in the PDD.	Pending NIR 6	Y
5.2.11 Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD	DR	No specific procedure is identified for internal audits of GHG project compliance with operational requirements where applicable.	Pending NIR 6	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.2.12 Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD	DR	No specific procedure is identified for project performance reviews before data is submitted for verification, internally or externally in the monitoring plan given in the PDD.	Pending NIR 6	Y
5.2.13 Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD	DR	No specific procedure is identified in the monitoring plan given in the PDD.	Pending NIR 6	Y

Table 6 Environmental Impacts (Ref PDD Section D and relevant local legislation)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	The analysis of environmental impacts of project activity is Sufficiently described. The same has to be checked during site visit.	Pending	Y
6.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if Ok, is an EIA approved?	PDD	DR	Project has completed Rapid EIA and Project proponent needs to submit EIA report copy.	NIR 7	Y
6.3 Will the project create any adverse environmental effects?	PDD	DR	To be checked during site visit and as per PDD there is no adverse environmental effects.	Site Visit.	Y
6.4 Are transboundary environmental impacts considered in the analysis?	PDD	DR	No transboundary environmental impact identified from project activity. To be verified during site visit.	Site visit	Y
6.5 Have identified environmental impacts been addressed in the project design?	PDD	DR	The identified environmental impacts have been addressed in the PDD, but the same has to be verified during site visit.	Pending	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6.6 Does the project comply with environmental legislation in the host country?	PDD	DR	The project activity is complied with all environmental legislation in the host country India.	Y	Y

Table 7 Comments by local stakeholders (Ref PDD Section E)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.1 Have relevant stakeholders been consulted?	PDD	DR	No, the list of relevant stakeholders consulted is not provided in the PDD.	CAR 8	Y
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	In the PDD there is no clear information about the media used to invite comments from local stakeholders.	CAR 9	Y
7.3 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?	PDD	DR	Stakeholder consultation process is not required as per law but project participant has consulted the local stakeholders as a requirement for CDM project. MoM of the meeting has to be submitted by the project proponent.	NIR 10	Y
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	The summary of the stakeholder comments is not clear in the PDD.	CAR 11	Y
7.5 Has due account been taken of any stakeholder comments received?	PDD	DR	Due account of stakeholder comments Not mentioned in PDD Clearly.	CAR 12	Y

TABLE 8 OTHER REQUIREMENTS

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	The PDD template for version 03.1 has been applied correctly.	Y	Y
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified	PDD	DR	Pending CARs and NIRs	Pending	Y
8.2 Technology to be employed					
8.2.1 Does the project design engineering reflect current good practices?	PDD	DR	The project reflects current good practice for project design engineering based on the PDD.	Site visit	Y
8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	The project uses state of the art technology based on the information provided in the PDD.	Y	Y
8.2.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	The project technology will not be changed during the crediting period. Evidence for the same has to be submitted by the project proponent.	CAR 13	Y
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR	No information was found regarding training and maintenance efforts for project activity in the PDD.	NIR 14	Y
8.3 Duration of the Project/ Crediting Period					
8.3.1 Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD	DR	Project activity starting date is 29-05-2006. Evidence for the same is required to be submitted.	CAR 15	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.3.2 Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD	DR	The assumed crediting time is clearly defined as 10 years and reasonable. The start date for crediting period will be from the date of registration as the date mentioned is not realistic date by which the Project will be registered.	Y	Y
8.3.3 Does the project's operational lifetime exceed the crediting period	PDD	DR	The project's operational life time is expected to be 25 years which exceeds the crediting period of 10 years	Y	Y

Annex 3

FINDINGS OVERVIEW

Date: 2007-03-08

Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
1	CAR	Project proponent is required to submit the Letter of Approval for the present project activity from Host country.	1.2
Date: 15/03/2007 [Response from project developer] Letter of Approval received from DNA and is provided to DOE. HCA reference no: F.NO. 4/21/2006-CCC; Dated : 22/01/2007			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] Letter of approval from DNA (reference number 4/21/2006-CCC) dated 22nd January 2007 has been received and checked with the original copy and found satisfactorily, Hence CAR 01 can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 2007-03-08

Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
2	NIR	Project boundary is not clearly defined in PDD	2.2
Date: 15/03/2007 [Response from project developer] Project boundary elaborated in revised PDD.			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] The Project boundary has been made more clear in the revised PDD, the CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 2007-03-08

Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
3	NIR	Excel spreadsheet for the calculation of baseline emissions to be provided by the Project Proponent.	2.3
Date: 15/03/2007 [Response from project developer] Excel sheet for calculation of baseline emissions is provided to DOE.			
Date: [Nikunj Agarwal] [Comments from Local Assessor] Excel spreadsheet for the calculation of baseline emission has been obtained and checked and found that the baseline emission factor has been changed as in the PDD. [Acceptance and close out]Open			
Date: 23/03/2007 [Response from project developer] The baseline grid emission factor has changed from 0.85 to 0.86 tCO ₂ / MWh for Southern Region (SR) grid as per the latest report of Central Electricity Authority on grid emission factors. The changed value is reflecting in the increased emission reductions from the project activity.			
Date: 2007-03-28[Nikunj Agarwal] [Comments from Local Assessor] Please mention what value of emission factor have been used for the project activity, as in the PDD in calculation of Emission Reduction 0.86tCO ₂ /MWh have been used while on page 2 it is written 0.85 tCO ₂ /MWh . [Acceptance and close out]Open			
Date: 29/03/2007 [Response from project developer] Corrected on page 2 of PDD.			
Date:2007-04-04[Nikunj Agarwal] [Comments from Local Assessor]			

26/35

The value of emission reduction(0.85 tCO₂/MWh) on page 2 has been corrected in the revised PDD and now 0.86 tCO₂/MWh is reflecting in the revised PDD, hence this NIR can be closed.
[Acceptance and close out]Ok, Closed Out[Sanjeev Kumar]

Date: 2007-03-08

Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
4	CAR	<p>Please provide IRR calculation sheet along with sensitivity analysis sheet.</p> <p>All the barriers mentioned in these steps are not transparent. Needs to be supported by documentary evidences.</p> <p>Common practice analysis is not clear and supporting documentation is to be provided.(provide the list of existing sponge iron plants in Tamilnadu)</p> <p>How CDM will mitigate the Investment analysis Risk & barrier Analysis risk.</p>	3.2

Date: 15/03/2007 [Response from project developer]

PP has not estimated IRR from the project activity. The analysis has been carried out for levelised cost of power generation in project activity. This has been compared with cost of power generation in conventional power sources based on coal and diesel. For comparison of cost of unit power generation, "Report of The Expert Committee on Fuels for Power Generation, Central Electricity Authority - 2004" has been referred. A copy of the same has been provided to DOE.

Documentary evidences as support to barrier analysis are provided to DOE. These include JPC report, CEA data on cost of power generation based on fuel type, problems of iron ore availability and raw material quality (actual test reports from the plant)

For common practice analysis, JPC report copies are provided to DOE.

CDM benefits would help PP in covering the risks as discussed in PDD. CDM benefits will help in bridging the gap in cost of power generation from the project activity and that from the baseline scenario i.e. coal based power plant.

Date: [Nikunj Agarwal] [Comments from Local Assessor]

As per the tools of additionality, the project proponent has used Sub-step 2b. – Option II and has made comparison of cost of unit power generation. In the excel sheet of 'WHRB Power Cost analysis' from where you are using 16% in the calculation of Return on equity. Please justify.

The project proponent has submitted CEA data on cost of power generation based on fuel type, problems of iron ore availability and raw material quality and some pages of JPC report for supporting the additionality, please provide the whole JPC Report (instead of some pages) for supporting the additionality.

Please provide the whole JPC report

[Acceptance and close out]Open

Date: 23/03/2007 [Response from project developer]

16% return on equity is guaranteed by Tamilnadu Electricity Regulatory Commission (TNERC), part of SR grid, for power plants in India.

Complete JPC report is provided to DOE.

Date:2007-03-28 [Nikunj Agarwal] [Comments from Local Assessor] The report of Tamilnadu Electricity Regulatory Commission has been received which justify 16% return on equity. JPC report has been provided by the project proponent which states that there are two sponge iron plants in Tamilnadu, please provide the status of the same, are they also going for the CDM, also mention the same in the PDD. [Acceptance and close out]Open
Date: 29/03/2007 [Response from project developer] JPC states that there are 2 sponge iron units existing in Tamilnadu and none of these have captive power generation based on waste heat recovery system.
Date:2007-04-04 [Nikunj Agarwal] [Comments from Local Assessor] The JPC report has been checked for the same and it states that there are two sponge iron plants in Tamilnadu and none of them are doing captive power generation, hence the CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
5	CAR	QA/QC Procedures needs more explanation for clarity	4.5
Date: 15/03/2007 [Response from project developer] QA/QC procedures are explained for each data being monitored in PDD (section B.7.1).			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] QA/QC procedures are now reflecting in PDD section B.7.1, this CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
6	NIR	The project management planning was not described in the PDD.	5.2
Date: 15/03/2007 [Response from project developer] Project management plan is detailed out in section B.7.2 of PDD.			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] The same has been now rephrased in the revised PDD, this NIR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
7	NIR	Project has completed Rapid EIA and documentary evidence is required for the same.	6.2
Date: 15/03/2007 [Response from project developer] EIA report discussed with DOE during validation. Description of EIA conducted is part of PDD.			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] Please provide the copy of EIA Report. [Acceptance and close out]Open			
Date: 23/03/2007 [Response from project developer] Copy of EIA is provided to DOE			
Date:2007-03-28 [Nikunj Agarwal] [Comments from Local Assessor] The EIA report has been provided by the project proponent, and the same is checked for Environmental Impacts on various parameters like Air quality, Water, Land, Noise generation and ecology as mentioned in table under section D in the PDD. This NIR can be closed out.			

28/35

[Acceptance and close out]OK, Closed Out[Sanjeev Kumar]

Date: March 1st 2007

Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
8	CAR	The list of relevant stakeholders consulted is not complete.	7.1
<p>Date: 15/03/2007 [Response from project developer]</p> <p>Relevant stakeholders consulted:</p> <ul style="list-style-type: none"> -President, Gram Panchayat (Pathapalayam Panchyat) -Local authority (District Magistrate) -Local community <p>Date: [Nikunj Agarwal] [Comments from Local Assessor] The MoM of stakeholder consultation has been submitted by the project proponent, which states the presence of local residents and Panchayat Member and the same has been verified during stakeholder consultation at the site visit. This CAR can be closed. [Acceptance and close out]OK, closed Out[Sanjeev Kumar]</p>			

Date: 2007-03-08

Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
9	CAR	Please provide the documentary evidence of the media used to invite comments by local stakeholders.	7.2
<p>Date: 15/03/2007 [Response from project developer] Stakeholder consultation process has been carried out using the following –</p> <ul style="list-style-type: none"> -Letter sent to District Magistrate, The President – Pathapalayam Panchyat. Copies of letters sent are provided to DOE. -Advertisements were published in local (Makkal Kural & Maalaisudar) as well as in English language (News Today & Trinity Mirror English dailies) in newspapers. Copies of the same are provided to DOE. -General Public meeting was held on 06/10/2006 at project site. Copy of minutes of meeting is provided to DOE. <p>Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] The advertisement given in news paper and the letter sent to panchayat and district authorities has been checked during site visit and the copy of the same has been submitted to the validator during site visit, the same was found satisfactory, this CAR can be closed. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]</p>			

Date: 2007-03-08

Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
10	NIR	MoM of the meeting of stakeholder consultation has to be submitted by the project proponent.	7.3
<p>Date: 15/03/2007 [Response from project developer] Copy of minutes of meeting held on 06/10/2006 is provided to DOE during validation.</p>			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor]			

MoM of stakeholder consultation was checked and the copy of the same was submitted to the validator, and the same was verified during local stakeholder consultation during site visit, the NIR can be closed.

[Acceptance and close out]OK, Closed Out[Sanjeev Kumar]

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
11	CAR	Summary of stakeholder comments is not clearly mentioned in PDD	7.4
Date: 15/03/2007 [Response from project developer] Summary of stakeholder comments is part of PDD.			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] Please mention the question/query of local stakeholders in the section E.2 of the PDD. [Acceptance and close out]Open			
Date: 23/03/2007 [Response from project developer] Description of question/ queries and response has been included in revised PDD.			
Date:2007-03-28 [Nikunj Agarwal] [Comments from Local Assessor] The summary of the stakeholder comments has been incorporated in the revised PDD and the same has been verified during local stakeholder consultation during site visit., so this CAR can be closed [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
12	CAR	Due account of stakeholder comments Not mentioned in PDD clearly.	7.5
Date: 15/03/2007 [Response from project developer] As there was no negative comment on project activity from stakeholders, so no need for any corrective action.			
Date: 2007-03-17[Nikunj Agarwal] [Comments from Local Assessor] Please mention how you address the local stakeholder question/comments in the section E.3 of the PDD. [Acceptance and close out]Open			
Date: 23/03/2007 [Response from project developer] PDD is revised accordingly.			
Date:2007-03-28 [Nikunj Agarwal] [Comments from Local Assessor] The same has been incorporated in the revised PDD, hence the CAR can be closed.. [Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
13	NIR	Documentary evidence that technology will not be changed or substituted during the entire crediting period needs to be provided by the project proponent.	8.2.3
Date: 23/03/2007 [Response from project developer] Undertaking to this effect is provided by PP.			
Date:2007-03-28 [Nikunj Agarwal] [Comments from Local Assessor] The same has been provided by the project proponent and found satisfactory, the NIR can be closed.			

[Acceptance and close out]OK, Closed Out[Sanjeev Kumar]

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
14	NIR	No information was found regarding training and maintenance efforts for project activity in the PDD.	8.2.4
Date: 15/03/2007 [Response from project developer] Project activity is expected to start by 01/07/2007. Relevant people working on the project activity are trained for operating and maintenance of the plant.			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] Meeting with plant Personnel during site visit ensures they are trained for operation and maintenance of the project activity.			
[Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Date: 2007-03-08 Raised by: Nikunj Agarwal

No.	Type	Issue	Ref
15	CAR	Project activity starting date is mentioned as 29-05-2006 in the PDD section C.1.1. Evidence for the same is required to be submitted.	8.3.1
Date: 15/03/2007 [Response from project developer] Project start date is corrected to 21/11/2005. Date is the contract date with AREVA, the technology supplier in the project activity.			
Date:2007-03-17 [Nikunj Agarwal] [Comments from Local Assessor] Please provide the Contract Agreement with AREVA.			
[Acceptance and close out]Open			
Date: 23/03/2007 [Response from project developer] Contract copy with AREVA is provided to DOE.			
Date:2007-03-28 [Nikunj Agarwal] [Comments from Local Assessor] The same has been provided by the project proponent and the starting date for the project activity has been checked with the Contract agreement with AREVA and found satisfactory, hence this CAR can be closed out.			
[Acceptance and close out]OK, Closed Out[Sanjeev Kumar]			

Annex 4

Statement of Competence

Name: Sanjeev Kumar

SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☒
- Expert ☒

Validation

Verification

- Local Assessor ☒
- Lead Assessor ☒
- Assessor ☒
- /Trainee Lead Assessor ☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) ☒
2. Energy Distribution ☒
3. Energy Demand ☒
4. Manufacturing ☒
5. Chemical Industry ☐
6. Construction ☐
7. Transport ☐
8. Mining/Mineral Production ☐
9. Metal Production ☐
10. Fugitive Emissions from Fuels (solid,oil and gas) ☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride ☐
12. Solvent Use ☐
13. Waste Handling and Disposal ☐
14. Afforestation and Reforestation ☐
15. Agriculture ☐

Approved Member of Staff by Siddharth Yadav Date: 16th May 2007

Statement of Competence

32/35

Name:Pankaj Mohan

SGS Affiliate:SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

Validation

Verification

- | | | |
|-------------------------|-------------------------------------|-------------------------------------|
| - Local Assessor | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Lead Assessor | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Assessor | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| / Trainee Lead Assessor | | |

Scopes of Expertise

- | | |
|--|-------------------------------------|
| 1. Energy Industries (renewable / non-renewable) | <input checked="" type="checkbox"/> |
| 2. Energy Distribution | <input checked="" type="checkbox"/> |
| 3. Energy Demand | <input checked="" type="checkbox"/> |
| 4. Manufacturing | <input checked="" type="checkbox"/> |
| 5. Chemical Industry | <input type="checkbox"/> |
| 6. Construction | <input type="checkbox"/> |
| 7. Transport | <input type="checkbox"/> |
| 8. Mining/Mineral Production | <input type="checkbox"/> |
| 9. Metal Production | <input type="checkbox"/> |
| 10. Fugitive Emissions from Fuels (solid,oil and gas) | <input type="checkbox"/> |
| 11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride | <input type="checkbox"/> |
| 12. Solvent Use | <input type="checkbox"/> |
| 13. Waste Handling and Disposal | <input type="checkbox"/> |
| 14. Afforestation and Reforestation | <input type="checkbox"/> |
| 15. Agriculture | <input type="checkbox"/> |

Approved Member of Staff by Marco van der Linden Date: 03-04-07

Statement of Competence

33/35

Name: Nikunj Agarwal

SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

Validation

Verification

- Local Assessor ☒
- Lead Assessor ☐
- Assessor ☐
- / Trainee Lead Assessor ☐

Scopes of Expertise

- | | |
|--|-------------------------------------|
| 1. Energy Industries (renewable / non-renewable) | <input checked="" type="checkbox"/> |
| 2. Energy Distribution | <input type="checkbox"/> |
| 3. Energy Demand | <input checked="" type="checkbox"/> |
| 4. Manufacturing | <input checked="" type="checkbox"/> |
| 5. Chemical Industry | <input type="checkbox"/> |
| 6. Construction | <input type="checkbox"/> |
| 7. Transport | <input type="checkbox"/> |
| 8. Mining/Mineral Production | <input type="checkbox"/> |
| 9. Metal Production | <input type="checkbox"/> |
| 10. Fugitive Emissions from Fuels (solid,oil and gas) | <input type="checkbox"/> |
| 11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride | <input type="checkbox"/> |
| 12. Solvent Use | <input type="checkbox"/> |
| 13. Waste Handling and Disposal | <input type="checkbox"/> |
| 14. Afforestation and Reforestation | <input type="checkbox"/> |
| 15. Agriculture | <input type="checkbox"/> |

Approved Member of Staff by Marco van der Linden Date: 03-04-07

Statement of Competence

Name: Dr. Jochen Gross

SGS Affiliate: SGS Germany GmbH

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☒
- Expert ☒

Validation

Verification

- Local Assessor ☒
- Lead Assessor ☒
- Assessor ☒
- / Trainee Lead Assessor

Scopes of Expertise

- | | |
|--|-------------------------------------|
| 1. Energy Industries (renewable / non-renewable) | <input checked="" type="checkbox"/> |
| 2. Energy Distribution | <input type="checkbox"/> |
| 3. Energy Demand | <input type="checkbox"/> |
| 4. Manufacturing | <input checked="" type="checkbox"/> |
| 5. Chemical Industry | <input type="checkbox"/> |
| 6. Construction | <input type="checkbox"/> |
| 7. Transport | <input type="checkbox"/> |
| 8. Mining/Mineral Production | <input type="checkbox"/> |
| 9. Metal Production | <input checked="" type="checkbox"/> |
| 10. Fugitive Emissions from Fuels (solid,oil and gas) | <input type="checkbox"/> |
| 11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride | <input type="checkbox"/> |
| 12. Solvent Use | <input type="checkbox"/> |
| 13. Waste Handling and Disposal | <input type="checkbox"/> |
| 14. Afforestation and Reforestation | <input type="checkbox"/> |
| 15. Agriculture | <input type="checkbox"/> |

Approved Member of Staff by Siddharth Yaddav

Date: 16 May 2007