VALIDATION REPORT

Ramswarup Loh Udyog Limited

20MW Waste Gas based Captive Power Project based at Kharagpur, West Bengal

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20MW Waste gas based captive power project based at Kharagpur, West Bengal	SGS Climate Change Programme
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1	Ramswarup Loh Udyog Limited

Summary

SGS India Pvt. Ltd., an affiliate of SGS United Kingdom Ltd. has made a validation of the CDM project activity "20MW Waste gas based captive power project based at Kharagpur, West Bengal" by Ramswarup Loh Udyog Limited, West Bengal state in India, 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 2 dated 01/07/2005).

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 / Local Assessor			
Technical review			
Mr. Martin Beckmann (Trainee) Ms. – Irma Lubrecht			☒ No distribution without permission from the Client or responsible organisational unit
Authorized signatory			
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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CO_2	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
DRI	Direct Reduced Iron
RLUL	Ramswarup Loh Udyog Limited
EIA	Environment Impact Assessment
GHG	Green House Gas(es)
I	Interview
IPCC	Intergovernmental Panel on Climate Change
ISHC	International Stakeholder Consultation
kWh	Kilo watt hour
MNES	Ministry of Non Conventional Energy Sources
MoEF	Ministry of Environment and Forest
MoV	Means of Verification
MP	Monitoring Plan
MWh	Mega watt hour
MT	Metric Ton
NIR	New Information Request
PDD	Project Design Document
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention for Climate Change
WBSPCB	West Bengal State Pollution Control Board

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1. Introduction

1.1 Objective

Ramswarup Loh Udyog Limited has commissioned SGS to perform the validation of the project: "20MW Waste gas based captive power project based at Kharagpur, West Bengal" 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 proposed CDM project activity is waste gas based power generation project for captive use in sponge iron manufacturing unit; located at West Bengal state in India. The project activity is the effective trapping of the waste heat from the sponge Iron industry and fed into the boiler which produces steam and the steam produced is fed to the turbo generator to produce electricity. The electricity generated is consumed in house as well as sold to the grid. The project activity is still in commissioning stage.

Baseline Scenario:

Under the baseline scenario, the project would have imported the equivalent amount of electricity form the eastern regional grid which is primarily fossil fuel based.

With Project Scenario:

The project activity uses waste heat for generation of power. The project activity is using waste heat generated by the kiln and fed it in the power generation unit to generate power which in turn contributes to conservation of coal, a non-renewable natural resource and also reduced GHG emissions.

Leakage:

As per the methodology ACM0004 version 2; applicable for the project activity, leakage is not to be considered.

Environmental & Social Impacts:

According to local assessor, there is no negative environmental and social impact expected due to the project activity.

1.4 The names and roles of the validation team members

Name	***Role***
Sanjeev Kumar	Lead Assessor
Pankaj Mohan	Assessor / Local Assessor
Martin Beckmann	Trainee Technical Reviewer
Irma Lubrecht	Technical reviewer

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***
The various requirements are linked to checklist questions the project should meet.	*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.*	*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.*	*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.*

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 2nd January 2007; issued by the Indian DNA (reference number 4/13/2006-CCC) has been provided by the client which was verified from the original copy during the site visit. 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 baseline selected by the project proponent was the likely baseline scenario. The baseline for the project is import of electricity from the eastern regional grid.

The project has applied baseline as mentioned in the large scale methodology ACM0004 version 02 dated 3rd March 2006 for "Consolidated Baseline methodology for waste gas and / or heat and / or pressure for power generation" as per the CDM project activities. The project activity is producing the electricity for captive use and will fall under the category ACM0004.

The project participant considered the import of power from grid as the best alternative as the board of directors were of the opinion that captive power plant installation is a costly affair and it is around 55% of the cost of setting up the sponge iron unit. The board minutes were also seen and checked during site visit. The copy of board minutes was also obtained. The project participant also considered that the common practice in the region is import of power from the grid. This was substantiated by the Joint plant committee report which clearly states at page 38 that no captive power plant was installed out of 30 surveyed till date in the region. The initial investment cost was compared for setting up the captive power plant and import of power from the grid. This was verified as below.

Alternative	Capital cost (Crores INR)	Comments	Conclusion
Import of electricity from grid	NIL	Continuation of current practice in the region, annual expenses in the form of tariff is low, no additional investment, easy government approvals.	An economically attractive option
Coal based CPP	800 (40Million/MW)	High capital cost- difficulty in accessing bank loans, government clearances cumbersome.	This option is economically unattractive
Project activity	34	The promoters are reluctance to set up the waste heat recovery based power unit, primarily on account of the high capital cost and the risks involved. In fact it was only when the CDM related revenue was highlighted to the investor group and concrete offers were produced to the investors then they agreed to invest the	This option is not a viable baseline scenario

		equity component required to fund the power plant. Otherwise, the investors were of the opinion that the project was very risky and preferred to set up the project by drawing the required power from the state electricity grid. In addition, all (most) similar WHR projects being set-up in the country (in the SME segment) are being developed under the CDM. In view of the above, it may be concluded that at the point in time when the decision to proceed with the project was taken, the related CDM linked revenue were seriously considered and was a key factor responsible for the favourable decision.	

Based on the above information it is evident that “Import of electricity from the grid” requires the minimum initial investment and hence is the most economically attractive baseline alternative considered/available to RLUL for obtaining power requirement in its industrial complex. Hence, “Import of electricity from the grid” has been considered as the baseline scenario in this project activity.

The PP also shown the sanction letter of 20MVA from state grid to meet the power requirements for the sponge iron plant .The letter is checked and obtained the copy of the same. Also, to be on conservative side the baseline emission factor is also taken as grid emission factor. Eastern regional grid as the baseline was accepted based on common practice in the region and also on the basis of most economically attractive option and this is as per ACM0004 version2. Taking power from grid does not face any prohibitive barrier and the revised PDD is also checked and mentions this clearly and transparently.

The project has adopted the Investment barrier for the present project activity to justify the additionality of the project. In addition to this project proponent has also mentioned few technological barriers faced during early operation period of the project activity. The start date was also not mentioned properly. The common practise analysis was also not clearly mentioned. In order to get all the related documents on which basis the project was shown additional, CAR07 was raised.

The project is using Tool, of demonstration and assessment of additionality version 3. The additionality of the project was assessed using the investment barrier. The major barrier identified by the board members of the company was funds for the project activity in terms of equity capital to invest in the project. The board members were of the opinion that they should go for grid power instead of WHRB as WHRB is not the proven technology. The project proponent made the decision to go ahead only after considering CDM benefits and discussing the same with the potential CER buyer. This made the project activity financially viable. Hence CDM was found a drive in going ahead with the project activity. The communication between the buyers and the various board resolutions were also seen and obtained the copy for the same. The loan of the project participant was also rejected by Power Finance Corporation Limited. The copy of rejection letter was also obtained. This can be uploaded as proof of additionality. The copy of bank loan documents were also obtained and verified with original copies during site visit as well. The loan was obtained from IREDA.

The documentary evidence for the technological barrier was not submitted by the project proponent. Later in response to the CAR07 Project proponent has submitted the JPC report which talks about the technological barriers faced by the Sponge Iron industry in terms of raw material, Power, etc. The report also states that the sector lacks technical expertise as well. The project proponent also provided the communication with the supplier which states the reasons for low penetration of the technology and

also mentions the other operational & Maintenance risks related to the project activity. The communication with supplier was also seen by the local assessor and obtained the copy for the same.

The start date of Project was also not mentioned in the PDD clearly. Documentary evidence was also not provided. The project proponent replied by providing the copy of contract signed between the project proponent and the contractor Cethar Vessels private limited for Erection, Supervision, & Commissioning. This was verified with original copy and same was accepted.

The Project proponent provided documentary evidence for the common practice analysis mentioned in the JPC report. The JPC report clearly states that none of the plants in West Bengal are having WHRB installed. The same was verified by obtaining the copy of Page 38 of JPC report. The project proponent also provided the proof of 67 Sponge Iron industries in West Bengal from steel wire manufacturers association of India.

This was accepted and hence CAR07 was closed out.

The project proponent is claiming credits for seven years crediting period from date of registration. The project proponent has selected Renewable crediting period.

Based on the findings above, it was concluded that the project activity was not a likely baseline scenario and hence additional to any that would occur in absence of project activity.

3.3 Application of Baseline methodology and calculation of emission factors

The proposed CDM project activity is the power generation using waste gases and uses baseline methodology as described under Type ACM0004 version 02 dated 3rd March 2006 for “Consolidated Baseline methodology for waste gas and / or heat and / or pressure for power generation” as per large scale CDM project activities.

The emission reduction calculation sheet was not provided with the PDD and hence the CAR04 & NIR05 were raised. Responding to this project proponent provided the calculations for emission reduction. The calculation sheet was checked by the local assessor. It was checked for each and every figure obtained by using the formulas and checking if the formula applied is correct or not. This was also checked that the assumptions taken are correct or not. After reviewing this it was 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 CAR04 & NIR05 were closed out.

NIR06 was raised to get the clarification on leakage in the project activity. This was not mentioned according to the methodology. The project proponent replied by providing the justification in the revised PDD as per the methodology. This was accepted and hence NIR06 was closed out.

The project is using emission factor 0.96451 tCO2 / GWH. It is calculated ex-ante and is fixed for entire crediting period.

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 for “Consolidated Baseline methodology for waste gas and / or heat and / or pressure for power generation” as per CDM project activities.

The PDD version 4 mentions all the steam parameters as per the requirement of emission reduction calculations in section B.7.1. The PDD version 4 is also mentioning the parameters which need not to be monitored and provided in section B.6.2. The parameters mentioned under section B.6.2 will be fixed for the entire crediting period.

The monitoring plan given in the PDD was not clear about the baseline emissions. CAR08 was raised for same. In response to CAR08 project proponent made necessary changes in the monitoring plan and same was included in the rephrased PDD. They also provided the monitoring report i.e. how parameters will be monitored. This was accepted and hence CAR08 was closed out.

NIR09 was raised as the PDD was not mentioning the QA/QC clearly and as per monitoring methodology. The project proponent replied by providing the revised PDD along with the monitoring procedures. This was checked during the desk review and found that this is in order and hence NIR09 was closed out.

NIR10 was raised as the PDD was not clear on monitoring plan of the parameters measured and nothing was mentioned about Authority and responsibility of project management, Registration, Monitoring, Measurement, Reporting, Training, Internal Audit, Emergency preparedness, Calibration, Maintenance, day to day record handling and corrective actions. The project proponent in his response to NIR06 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 NIR10 was closed out.

3.5 Project design

The Project Design Document (PDD) was designed as per version 3.1 of guidelines laid for preparing PDD of large scale CDM project activity hence the format of the present PDD was checked against it.

NIR02 was raised to gather the information on ODA. The project proponent provided the letter that no ODA was utilized for the project activity and above all loan was taken from IREDA. This was accepted and hence NIR02 was closed out.

The project boundary given in the PDD was not clear and hence CAR03 was raised for the same. The project proponent made required corrections in the project boundary and same are included in the rephrased PDD, this can also verified during verification as well as the project is still in commissioning stage and hence CAR03 was closed out.

NIR17 was raised to know whether the technology will be changed during the crediting period or not. The project proponent replied by providing the undertaking that it will not be changed during the crediting period and same was verified by asking the executive director of the company. This was accepted and hence NIR17 was closed out.

NIR18 was raised to know if some training was provided for operating the project activity or not. The project proponent replied by providing the training schedule and as the project is still in commissioning stage this can be verified during verification as well. It this was accepted and hence NIR18 was closed out.

CAR19 was raised to check the starting date of the project activity. The project proponent has submitted contract copy signed between project proponent and contractor in which project activity was considered. The document copy is obtained and verified during discussions with Project proponent and CAR 19 was closed out.

3.6 Environmental Impacts

EIA copy was not provided by the client hence NIR11 was raised. The project proponent replied by providing the copy of EIA. This was checked and accepted hence NIR11 was closed out.

The compliance with local environmental regulations in that EIA requirement for the project activity was checked and also project proponent submitted consent to establish and operate from Pollution control Board (PCB), a local authority responsible for giving Environmental clearance. The project proponent in the PDD mentioned in detail 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. This was also checked from the copy of EIA which was given by the project proponent to the local assessor. These were in compliance and even during local stakeholder consultation carried out by local assessor no negative comment was reported.

3.7 Local stakeholder comments

NIR12 was raised to get the copies of relevant clearances as mentioned in the PDD. The project proponent provided the necessary clearances and copies of same was also checked during site visit. This was accepted and hence NIR12 was closed out.

The project proponent in the PDD has not mentioned the media used to get the comments from the local stakeholders so NIR13 was raised. The project proponent replied by telling that villagers and local authorities were briefed in person. The advertisement was given for EIA requirement was taken for this as well. This was cross checked during the meeting with the local assessor. This was accepted and hence NIR13 was closed out.

The project proponent carried out the local stakeholder consultation as mentioned in the PDD but no documentary proof was provided so NIR14 was raised. The project proponent provided the documentary proof i.e. minutes of meeting and same was verified during the site visit by the local assessor. This was accepted and hence NIR14 was closed out.

Summary of stakeholder consultation was not mentioned in the PDD hence NIR15 was raised. The project proponent mentioned the summary in the revised PDD correctly. This was accepted and hence NIR15 was closed out.

NIR16 was raised to get the clarification on how due account of comments were taken and replied is not mentioned in PDD. The project proponent replied by providing the due account in the revised PDD correctly. This was accepted and hence NIR16 was closed out.

The local assessor also verified all the documents during consultation with few people whom he met during the site visit. They praised the project activity and told that it has resulted in positive effects to the people of local community.

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 SGS website http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=176 and were open for comments from 06-12-2006 to 04-01-2007. 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 No comment.

4.3 Explanation of how comments have been taken into account

No Comment Received.

5. Validation opinion

SGS has performed a validation of the project: “20MW Waste gas based captive power generation project based at Kharagpur, West Bengal” in India, by Ramswarup Loh Udyog Limited. 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 using waste gas as fuel 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 barrier followed by technological barrier demonstrates that the proposed project activity was 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 under implementation 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

Date	*Name*	*Position*	*Short description of subject discussed*
03-01-2007	Mr. B K Dutta	Projects head	Technical description of project activity and baseline and data monitoring for project activity
03-01-2007	Mr. Naveen Gupta	Chief Financial Officer	Project proponents view on project activity and CDM funds
04-01-2007	Mr. Nalin	farmer	Local stakeholder consultation

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/ HCA letter given by MoEF, Government of India

/2/ Modalities of communication

/3/ PDD version 1 (web hosted)

/4/ PDD version 2 (sent for TR)

/5/ PDD version 3 (submitted with Request for review)

/6/ PDD version 4 (submitted with correction requested)

/7/ Letter from state electricity board

/8/ JPC report page 38

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/ Undertaking for ODA

/2/ Start date proof

/3/ Minutes of Board Meeting

/4/ DCS work order

/5/ Minutes of meeting of local stakeholder consultation

/6/ List of units covered under JPC study

/7/ Baseline emission and Project emission calculation excel file.

/8/ Technical specifications of the TG set

/9/ Boiler purchase order for specification of boiler

/10/ Letter on Training requirement & Manpower deployed.

/11/ Copy of monitoring plan

/12/ Monitoring procedures

/13/ ACM0004 version 2 dated 3rd March 2006

/14/ JPC Report

/15/ No change in technology letter

/16/ CEA Data for 2003, 2004, 2005.

/17/ Bank Loan documents

/18/ Design Philosophy of the plant & DPR

/19/ Investment & Technological barrier proofs

/20/ Draft monitoring report

Annex 1

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

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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.			It was checked and there is no auxiliary fuel used to provide additional heat gain before entering 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 was checked during site visit it was in line with methodology.	Y	Y
Local stake holder comments needs to be checked during site visit.			Local stake holder 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
Environmental impacts reported to be checked and verified.			No negative environmental impacts either reported by the local stakeholders or	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			seen during site visit. As per the validation protocol the local stakeholder consultation carried out by local assesor no negative comment was reported or seen.		

Annex 2

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

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.		PDD	The project assists in emission reduction of Annex1 parties. No Annex 1 party is involved at present.	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	DR	PDD	Letter of approval to be submitted by the project proponent.	CAR1	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		UNFCCC	India ratified the Kyoto Protocol on 26th 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	DR	PDD	The project activity result in reduction of GHG emissions as it uses waste gas / Blast furnace gas for the generation of electricity.	Y	Y
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45		UNFCCC	The project was listed on UNFCCC website from 06-12-2006 to 04-01-2007.	Y	Y

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
days for AR projects), and the project design document and comments have been made publicly available			It was also listed on SGS website. The link is http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=176.		
1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance	DR	PDD	The project has completed the project design document using the current version and exactly following the guidance.	Y	Y
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	DR	PDD	No ODA is utilized by the project activity and also not results in diversion of ODA. Proof to be provided	NIR2	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?			Not Applicable	N / A	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			Not Applicable	N / A	Y
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment.	DR	PDD	The PDD is complete and it does reflect the information clearly but pending CARs / NIrs	Pending	Y
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?	DR	PDD	Pending CARs / NIRs.	Pending	Y

TABLE 2 BASELINE METHODOLOGY(IES) (REF: PDD SECTION B AND E 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	DR	PDD	The project meets the applicability criteria listed in the methodology.	Y	Y
2.2 Is the project boundary consistent with the approved methodology	DR	PDD	Project boundary is not clear from the PDD.	CAR3	Y
2.3 Are the baseline emissions determined in accordance with the methodology described	DR	PDD	Excel sheet to be provided for the baseline emissions.	CAR4	Y
2.4 Are the project emissions determined in accordance with the methodology described	DR	PDD	Project emissions are determined as per the methodology. Excel sheet to be provided.	NIR5	Y
2.5 Is the leakage op the project activity determined in accordance with the methodology described	DR	PDD	Leakage is not addressed in the PDD and not as described in the methodology ACM0004.	NIR6	Y
2.6 Are the emission reductions determined in accordance with the methodology described	DR	PDD	Pending CAR4 , NIR5, NIR6	Pending	Y

Table 3Additionality (Ref: PDD Section B3 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	DR	PDD	The PDD follows 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	DR	PDD	The discussion on additionality is not clear. Step 0:- start Date of project is not mentioned. Documentary evidence needs to be provided Step 3: - All The barriers mentioned in this step are not transparent and clear and not supported by documentary evidences. • How CDM will	CAR7	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			mitigate the risk of investment barrier, Technological barrier. • In Investment barrier any loan rejection and loan approval documents needs to be provided. • Provide proof for the Technological barrier • Proof of training needs to be provided. Step 4: - common practice analysis is not clear and supporting documentation is to be provided for 67 sponge iron industries.		
3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	DR	PDD	Baseline selected is the most likely baseline scenario among the scenarios discussed in the PDD.	Y	Y
3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	DR	PDD	Pending CARs / NIRs	Pending	Y

Table 4 Monitoring methodology (PDD Section D 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	DR	PDD	The project meets the applicability criteria listed in the monitoring methodology of ACM0004	Y	Y
4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology	DR	PDD	Monitoring of baseline emissions is not clear.	CAR8	Y
4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology	DR	PDD	Pending NIR5	Pending	Y
4.4 Does the PDD provide for the monitoring of the leakage as required in	DR	PDD	Pending NIR6	Pendi	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
the monitoring methodology				ng	
4.5 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology	DR	PDD	The PDD does not provide the quality control and quality assurance procedures as required in the monitoring methodology.	NIR9	Y

Table 5Monitoring plan (PDD Annex 4)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1 Monitoring of Sustainable Development Indicators/ Environmental Impacts	DR	PDD	Pending CAR1	Pendi ng	Y
5.1.1 Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?			Not Applicable	N/A	Y
5.1.2 Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?			Not Applicable	N/A	Y
5.1.3 Will it be possible to monitor the specified sustainable development indicators?			Not Applicable	N/A	Y
5.1.4 Are the sustainable development indicators in line with stated national priorities in the Host Country?			Pending CAR1	Pendi ng	Y
5.2 Project Management Planning				NIR10	Y
5.2.1 Is the authority and responsibility of project management clearly described?	DR	PDD	Authority and responsibility of project management is missing in Annex4 of PDD.	Pendi ng NIR10	Y
5.2.2 Is the authority and responsibility for registration, monitoring,	DR	PDD	Authority and responsibility for registration is missing in	Pendi ng NIR10	Y

CHECKLIST QUESTION		Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	measurement and reporting clearly described?			Annex4.		
5.2.3	Are procedures identified for training of monitoring personnel?	DR	PDD	Procedures for training of monitoring personnel identified is missing in Annex4 of PDD.	Pending NIR10	Y
5.2.4	Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	DR	PDD	Procedures for emergency preparedness is missing in Annex4 of PDD.	Pending NIR10	Y
5.2.5	Are procedures identified for calibration of monitoring equipment?	DR	PDD	Procedures for calibration of monitoring equipments are missing in Annex4 of PDD.	Pending NIR10	Y
5.2.6	Are procedures identified for maintenance of monitoring equipment and installations?	DR	PDD	Procedures for maintenance of monitoring equipment and installations missing in Annex4 of PDD.	Pending NIR10	Y
5.2.7	Are procedures identified for monitoring, measurements and reporting?	DR	PDD	Procedures for monitoring, measurements and reporting are missing in Annex4 of PDD.	Pending NIR10	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)	DR	PDD	Procedures for day to day record handling is missing in Annex4 of PDD.	Pending NIR10	Y
5.2.9	Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	DR	PDD	Procedures for dealing with possible monitoring data adjustments and uncertainties are missing in Annex4 of PDD.	Pending NIR10	Y
5.2.10	Are procedures identified for review of reported results/data?	DR	PDD	Procedures for review of reported results / data are missing in Annex4 of PDD.	Pending NIR10	Y
5.2.11	Are procedures identified for internal audits of GHG project	DR	PDD	Procedure for internal audits of GHG project	Pending	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
compliance with operational requirements where applicable?			compliance with operational requirement is missing in Annex4 of PDD.	NIR10	
5.2.12 Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	DR	PDD	Procedure for performance review of data is missing in Annex4 of PDD.	Pending NIR10	Y
5.2.13 Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	DR	PDD	Procedure for corrective actions of data is missing in Annex4 of PDD.	Pending NIR10	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?	DR	PDD	The analysis of environmental impacts of project activity is sufficiently described. To be checked during site visit.	TBC	Y
6.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	DR	PDD	EIA was carried out by project proponent to meet the statutory condition. The EIA was approved. The copy of EIA to be provided by the client	NIR11	Y
6.3 Will the project create any adverse environmental effects?	DR	PDD	No adverse environmental effect reported in PDD. To be checked during site visit.	TBC	Y
6.4 Are transboundary environmental impacts considered in the analysis?	DR	PDD	No transboundary environmental impacts.	Y	Y
6.5 Have identified environmental impacts been addressed in the project design?	DR	PDD	The identified environmental impacts have been addressed in the PDD.	Y	Y
6.6 Does the project comply with environmental legislation in the host country?	DR	PDD	The project complies with the environmental legislation in the host country.	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?	DR	PDD	The relevant stakeholders have been consulted as mentioned in PDD. Relevant clearances to be provided.	NIR12	Y
7.2 Have appropriate media been used to invite comments by local stakeholders?	DR	PDD	Media used is not mentioned in PDD clearly.	NIR13	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?	DR	PDD	Stakeholder consultation process is not required as per law. The stakeholder consultation was carried out by project proponent for CDM process. MOM to be provided.	NIR14	Y
7.4 Is a summary of the stakeholder comments received provided?	DR	PDD	Summary of stakeholder consultation is not provided in the PDD.	NIR15	Y
7.5 Has due account been taken of any stakeholder comments received?	DR	PDD	Due account of stakeholder comments is not mentioned in PDD.	NIR16	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.	DR	PDD	The project has correctly applied the PDD template.	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	DR	PDD	Pending CARs / NIRs	Pending	Y
8.2 Technology to be employed					
8.2.1 Does the project design engineering reflect current good practices?	DR	PDD	The project design is reflecting current good practices.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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?	DR	PDD	The project is using state of art technology.	Y	Y
8.2.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	DR	PDD	Technology Change is not clear in PDD. Proof to be submitted by the project proponent.	NIR17	Y
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	DR	PDD	Training requirement is not mentioned in PDD clearly for the technology employed. i.e. For maintenance and operation	NIR18	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?	DR	PDD	Project starting date is mentioned in PDD clearly but proof to be provided. The operational life time is mentioned clearly as 30 years.	CAR 19	Y
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)?	DR	PDD	The assumed crediting time is clearly defined as 7 years and reasonable.	Y	Y
8.3.3 Does the project's operational lifetime exceed the crediting period	DR	PDD	The operational life time (30 years) exceeds the crediting period (7 years)	Y	Y

Annex 3
FINDINGS OVERVIEW

Date: 5-01-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
1	CAR	Letter of approval to be submitted by the project proponent	1.2
Date: 15-02-2007 [Comments: CLIENT] A Letter of Approval from the Indian government dated Jan 02 2007 File no: 4/13/2006 -CCC has been submitted to the DOE and the same is annexed as Annexure - I			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] Copy of letter of approval obtained and the original is scanned. This was accepted and hence CAR01 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR01 closed			

Date: 5-01-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
2	NIR	No ODA is utilized by the project activity and also not results in diversion of ODA. Proof to be provided	1.7
Date: 15-02-2007 [Comments: CLIENT] The project has availed its term loan for the development of the proposed CDM project activity from the Indian Renewable Energy Development Agency (IREDA) and a letter of undertaking from the company is being provided to establish the same along with a copy of bank sanction letter. The Bank approval is annexed as Annexure –II and the Undertaking given by the PP is annexed as Annexure –III.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] Letter from PP has been obtained and Loan documents were also seen during site visit. This was accepted and hence NIR02 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR02 closed.			

Date: 5-01-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
3	CAR	Project boundary is not clear from the PDD.	2.2
Date: 15-02-2007 [Comments: CLIENT] The project boundary encompasses a 52.5 TPH waste heat recovery boiler, a 35 TPH BF fired boiler, one number of 20 MW Steam turbo generator and all other power generating equipments, captive consumption units, the transport of the waste gases to boiler after the ABC chamber, the electricity generation terminal that is supplied to RLUL plant .The same is being rephrased in revised PDD version no: 2 dated 5th Feb 2007. The project boundary was rephrased in revised PDD.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] As the project is still under construction phase this can be checked during verification as well. This was accepted and hence CAR03 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR03 closed.			

Date: 5-01-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
4	CAR	Excel sheet to be provided for the baseline emissions.	2.3
Date: 15-02-2007 [Comments: CLIENT] Excel Sheet for baseline emission reduction calculation is attached herewith as Annexure – IV.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The baseline emissions calculation sheet was checked during site visit for the formulas used and values obtained and during check it was also asked which value is estimated and how by the project developer. After getting the proper responses it was accepted and hence CAR04 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR04 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
5	NIR	Project emissions are determined as per the methodology. Excel sheet to be provided.	2.4
Date: 15-02-2007 [Comments: CLIENT Excel Sheet for project emission calculation is attached herewith as Annexure - IV			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The excel sheet provided was checked for formulas used and figures obtained along with the assumptions taken and it was found to be satisfactory. This was accepted and hence NIR05 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR05 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
6	NIR	Leakage is not addressed in the PDD and not as described in the methodology ACM0004.	2.5
Date: 15-02-2007 [Comments: CLIENT] The proposed project activity does not generate any leakage and also the methodology considers leakage as zero .The rephrased sentence is provided in the revised PDD version no: 2 dated 5th Feb 2007.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The revised PDD mentions about the leakage correctly and it is described as per methodology. This was accepted and hence NIR06 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR06 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
7	CAR	The discussion on additionality is not clear. Step 0:- start Date of project is not mentioned. Documentary evidence needs to be provided	3.2

		Step 3: - All The barriers mentioned in this step are not transparent and clear and not supported by documentary evidences. • How CDM will mitigate the risk of investment barrier, Technological barrier. • In Investment barrier any loan rejection and loan approval documents needs to be provided. • Provide proof for the Technological barrier • Proof of training needs to be provided. Step 4: - common practice analysis is not clear and supporting documentation is to be provided for 67 sponge iron industries.	

Date: 26-02-2007
[Comments: CLIENT]
1. Step 0: the starting date of the project activity is the date on which the work order has been issued to M/s.Cethar Vessels Pvt.Ltd. (CVPL)[1] for erection, supervision, commissioning of machinery and Equipment for one number of 52.5 TPH Waste heat recovery boilers. The proof of the document has been provided to the DOE.

2. Step 3: The PP has identified many hurdles and prohibitive barriers in terms of high capital cost, Cyclic nature of the primary industry, low penetration of such technology etc for the implementation of the project activity.

Required Equity for the project:

The foremost barrier identified by the board members at the time of the inception of the project is the required funds in terms of equity capital to invest in the project. By keeping in view of the penetration of such similar technology in the region and also the other related issues like the market condition, vagaries in the nature of the feed stock material in the DRI, required manpower etc has pushed the board members to decide for adopting grid power against WHR based CPP, however only after the consideration of the CDM through discussion with a suitable CER buyer and a term sheet agreement with the same has only motivated the project proponent to cope up with the risk in developing the project. (The communication between the buyers and the various board resolutions on deciding the project technology/type has been provided to the DOE during the site visit. with the proposed project activity).It could be concluded that without the CDM revenues the project wouldn't have happened.

Required Debt for the project.

The project also has its associated barriers in terms of availing the necessary funds[2] from the financial/lending institutions which has given a fear in the mind of the project participant to pursue further with the project however by considering the CDM revenues in mind the PP has gone ahead with the installation of the proposed project activity.

Technological and managerial barrier:

The report on "Survey of Indian Sponge Iron Industry" published by Joint Plant Committee (constituted by Govt of India) has demonstrated and identified that Indian sponge iron industry

[1] Annex –V & V.I

[2] Annex -VI

lacks in proper/quality raw material source, power, labor etc.As this report has covered almost all the units in the state and more over as this is published by Govt of India entity this would clearly demonstrate that the adaptation of such technology has a prohibitive barrier our argument. The copies of the concerned pages from the report are provided to the DOE. The executive summary on page number seven of the "survey of the Indian sponge iron industry" has accorded the claim by the pp that the sector lacks in technical expertise. Also the technical consultant[3] has indicated the reasons for such low penetration of the implementation of the technology and the other related operational and maintenance risk related to the project activity and the same also being provided to the DOE. Step:4 Common practice barrier analysis: The Joint Plant committee report has studied/conducted a survey in all the units in West Bengal and stated that none of the plants are having waste heat recovery/CPP systems installed. Page no: 30 of the report has been provided as proof to the DOE[4]. More over the client has contacted the Steel wire manufacturers association of India[5] and collected the list of all the sponge iron units available in the region (List appended to the DOE) and contacted them through email and telephone calls and confirmed that at the time when the board discussed this unit it is the first unit to employ such technology. The PP has also collected the similar BF fired boiler installations through the manufacturer[6] and that also comprehends the statement of low penetration of such technology. Step :5 Impact of registration: The PP has identified attributable and substantiate barriers in terms of the equity for the project which has been overcome by the CDM revenues in terms of term sheet provided by the buyers to buy the credits. The main benefits of CDM registration relate to the financial and investment impacts of the CDM revenue stream as highlighted in step 2. Furthermore, the inherent risks in undertaking the project are reduced through the increased return associated with registering the project under CDM, thereby specifically offering the plant greater leeway in its first two years of operation when the promoter is gaining experience of operating the plant efficiently and assisting the project in achieving financial closure. In addition, the registration of the project under the CDM would enhance RLUL profile as a company that is concerned about the environment that it operates under.
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The explanation provided by the project developer was accepted after reviewing the documents provided to the assessor during site visit. The same has been scanned and put in Audit trail. Hence CAR07 could be closed out.
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR07 closed.

[3] Annex VIII.1,VIII.2

[4] Annex – VII A,B,C

[5] Annex –VIII

[6] Annex IX

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
8	CAR	Monitoring of baseline emissions is not clear in the PDD.	4.2
Date: 15-02-2007 [Comments: CLIENT] The baseline scenario opted for the project is the replacement of power from the grid and the baseline emission estimation involves the amount of net electricity generated by the waste heat recovery sources. The revised PDD version 2 dated 5th Feb 2007 submitted has taken into account of the issue raised by the DOE.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The revised PDD submitted by The project developer was reviewed and found to be in order and mentions the monitoring of baseline emissions clearly. This was accepted and hence CAR08 could be closed.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK, CAR08 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
9	NIR	The PDD does not provide the quality control and quality assurance procedures as required in the monitoring methodology.	4.5
Date: 15-02-2007 [Comments: CLIENT] Based on the issue raised by the DOE the PDD has been revised and all the necessary QA &QC procedures are identified and tabled in the section B monitoring plan of the PDD also a separate monitoring procedure[7] and a draft monitoring plan[8] is annexed.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The documents provided were reviewed and found to be in order. This was accepted and hence NIR09 could be closed.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK, NIR09 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
10	NIR	The parameters on Authority and responsibility of project management, Registration, Monitoring, Measurement, Reporting, Training, Internal Audit, Emergency preparedness, Calibration, Maintenance, day to day record handling and corrective actions are missing in Annex 4 of PDD.	5.2
Date: 15-02-2007 [Comments: CLIENT] The parameters on Authority and responsibility of project management, Registration, Monitoring, Measurement, Reporting, Training, Internal Audit, Emergency preparedness, Calibration, Maintenance, day to day record handling and corrective actions are included in Annex 4 of revised PDD.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The revised PDD submitted mentions the parameters on Authority and			

[7] Annex A

[8] Annex B

responsibility of project management, Registration, Monitoring, Measurement, Reporting, Training, Internal Audit, Emergency preparedness, Calibration, Maintenance, day to day record handling and corrective actions are mentioned in Annex 4 of PDD. This was accepted and hence NIR10 could be closed.
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR10 closed.

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
11	NIR	EIA was carried out by project proponent to meet the statutory condition. The EIA was approved. The copy of EIA to be provided by the client	6.2
Date: 15-02-2007 [Comments: CLIENT] A Copy of EIA has been attached along with the Photos[9] and the paper notification[10] to the DOE.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] Copy of EIA Obtained and same was checked during site visit. This was found to be in order hence NIR11 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR11 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
12	NIR	The relevant stakeholders have been consulted as mentioned in PDD. Relevant clearances to be provided.	7.1
Date: 15-02-2007 [Comments: CLIENT] The identified stake holder clearances like the local panchayat[11], EIA[12], state pollution control board clearance[13] , water clearance from kharagpur municipality[14] respectively are attached as annexures.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The project proponent provided the relevant clearances and same were checked during site visit. This was accepted and hence NIR12 closed.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR12 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref

[9] Annex X

[10] Annex XI

[11] Annex XII

[12] Annex XIII

[13] Annex XIV

[14] Annex XV

13	NIR	Media used is not mentioned in PDD clearly.	7.2
Date: 15-02-2007 [Comments: CLIENT] The PP has already taken up a public consultation in line with their EIA requirements, however also to appraise the local stake holders with respect to CDM the village Panchayat head has been contacted to give a consent for the project. Based on the direction provided by the local elected representative of the Villagers were explained in-person and the meeting was carried out on 21/04/2006[15] and on behalf of the local people the elected local representative has accorded the project as a welcome initiative and provided the consent.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The project proponent provided the copy of newspaper cutting which was done for EIA and also during site visit the assessor met few local people and found that there is no negative feed back for the project activity. This was accepted and hence NIR13 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIr13 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
14	NIR	Stakeholder consultation process is not required as per law. The stakeholder consultation was carried out by project proponent for CDM process. MOM to be provided.	7.3
Date: 15-02-2007 [Comments: CLIENT] The minutes of meeting of the public hearing is enclosed as Annex - XVI			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] MOM provided was reviewed and during the site visit assessor met few local people which provided the positive feedback for the project activity. This was accepted and hence NIR14 could be closed out.			
Date:04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR14 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
15	NIR	Summary of stakeholder consultation is not provided in the PDD.	7.4
Date: 15-02-2007 [Comments: CLIENT] No negative comments received from the clients and the summary of the comments are provided in the revised PDD.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The revised PDD mentions the summary of comments correctly. This was accepted and hence NIR15 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIr15 closed.			

[15] Annex – XVI.1,2,3,4

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
16	NIR	Due account of stakeholder comments is not mentioned in PDD.	7.5
Date: 15-02-2007 [Comments:CLIENT] Project activity received no negative comment from any of the stakeholders consulted and therefore no measures to be taken as such and the same is rephrased in the PDD.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The revised PDD mentions the same. Hence NIR16 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR16 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
17	NIR	Technology Change is not clear in PDD. Proof to be submitted by the project proponent.	8.2.3
Date: 15-02-2007 [Comments:CLIENT] The project activity has installed one waste heat recovery system based on the DRI Kilns, one BF gas fired Boiler and a turbo generator of 20 MW affected by the CDM project. A letter of undertaking has been provided to the DOE by the project participant at the time of the site visit that the project technology will not be altered during the crediting period. The copy of the same is annexed as Annexure-XVII			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The letter from client confirming that technology will not be changed during the crediting period. This is taken as assurance and same was accepted hence NIR17 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR17 could be closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
18	NIR	Training requirement is not mentioned in PDD clearly for the technology employed. i.e. For maintenance and operation	8.2.4
Date: 15-02-2007 [Comments:CLIENT] Proposed training schedule and the letter related to provision of training by the equipment suppliers is being provided to DOE[16].			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] The documentary evidence provided was reviewed and found to be in line with the query raised. This was accepted and hence NIr18 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR18 closed.			

Date: 5-1-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref

[16] Annex XVIII

19	CAR	Project starting date is mentioned in PDD clearly but proof to be provided. The operational life time is mentioned clearly as 30 years.	8.3.1
Date: 15-02-2007 [Comments:CLIENT] The starting date of the project activity is the date on which the work order has been issued to M/s.Cethar Vessels Pvt.Ltd. (CVPL)[17] for erection, supervision, commissioning of machinery and Equipment for one number of 52.5 TPH Waste heat recovery boilers. The proof of the document has been provided to the DOE.			
Date: 30-04-2007 [Pankaj Mohan] [Comment assessor] Project starting date is mentioned clearly in revised PDD. This was accepted and hence CAR19 could be closed out.			
Date: 04-05-2007 [Sanjeev Kumar] [Acceptance and close out] OK, CAR19 closed.			

Observations:

[17] Similar to Annex V&V.1

Annex 4: Statement of Competence of the Validation Team

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

Name:Pankaj Mohan 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	☒
16. Chemical Industry	☐
17. Construction	☐
18. Transport	☐
19. Mining/Mineral Production	☐
20. Metal Production	☐
21. Fugitive Emissions from Fuels (solid,oil and gas)	☐
22. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
23. Solvent Use	☐
24. Waste Handling and Disposal	☐
25. Afforestation and Reforestation	☐
26. Agriculture	☐

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

Statement of Competence

Name:Martin Beckmann SGS Affiliate:Germany

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	☒
27. Chemical Industry	☒
28. Construction	☐
29. Transport	☐
30. Mining/Mineral Production	☐
31. Metal Production	☒
32. Fugitive Emissions from Fuels (solid,oil and gas)	☐
33. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☒
34. Solvent Use	☐
35. Waste Handling and Disposal	☐
36. Afforestation and Reforestation	☐
37. Agriculture	☐

Approved Member of Staff by Marc van der Linden Date: 24-07-2006

Statement of Competence

Name:Irma Lubrecht SGS Affiliate:Netherlands

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	☐
38. Chemical Industry	☐
39. Construction	☐
40. Transport	☐
41. Mining/Mineral Production	☐
42. Metal Production	☐
43. Fugitive Emissions from Fuels (solid,oil and gas)	☐
44. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
45. Solvent Use	☐
46. Waste Handling and Disposal	☒
47. Afforestation and Reforestation	☒
48. Agriculture	☐

Approved Member of Staff by Marc van der Linden Date: 16-03-2007