VALIDATION REPORT

Electrotherm India Ltd

Electrotherm 30MW combined waste heat recovery and coal based captive power plant at kutch

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

Date of Issue:	**Project Number:**
11-06-2008	CDM.VAL1005 IN02
Project Title:	
Electrotherm 30MW combined waste heat recovery and coal based captive power plant at Kutch	
Organisation:	**Client:**
SGS United Kingdom Limited	Electrotherm India Ltd.
Publication of PDD for Stakeholders Consultation	
Commenting Period:	16-10-2007 to 14-11-2007
First PDD Version and Date:	01, 01-10-2007
Final PDD Version and Date:	03, 20-05-2008

Summary:

Electrotherm India Ltd has commissioned SGS to perform the validation of the project: Electrotherm 30MW combined waste heat recovery and coal based captive power plant at Kutch.

Methodology Used: ACM0012

Version and Date: Version 1, dated 6th July 2007 valid till 1st November 2007.

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 report is based on the findings of document reviews, the stakeholder consultation process and responses from the project participants to the findings raised in this report.

The report and the annexed validation describes a total of 34 findings which include:

- 15 Corrective Action Requests;
- 19 New Information Requests; and

All findings have been closed out satisfactorily and the project Will be recommended to the CDM Executive Board with a request for registration after the completion of Technical Review (TR).

Subject:			
CDM Validation			
Validation Team:			
Pankaj Mohan – Lead Assessor			☒ No Distribution (without permission from the Client or responsible organisational unit)
Technical Review:	**Trainee Technical Reviewer:**		
Date: 27-06-2008 & 29-06-2008 Name: Irma Lubrecht	Name: N/A		☐ Limited Distribution
Authorised Signatory:			
Name: Siddharth Yadav Date: 7th November 2008			☐ Unrestricted Distribution
Revision Number:	**Date:**	**Number of Pages:**	
0	11-06-2008	55	
1	28-06-2008	55	
2	06-11-2008	52	

Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CO2	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
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 Tonne
NIR	New Information Request
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change

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Annexes:

1. Validation Opinion

SGS United Kingdom Ltd has been contracted by Electrotherm India Ltd to perform a validation of the project: Electrotherm 30MW combined waste heat recovery and coal based captive power plant at Kutch in India.

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM) and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

SGS reviewed of the project design documentation, using a risk based approach and conducted follow-up interviews.

By installing two waste heat recovery boilers with a capacity of 28.5 TPH and 36 TPH respectively in order to generate power from the hot flue gases from the sponge iron kilns. The Project is a waste heat recovery power generation project using waste flue gas from two sponge iron kilns in the direct reduction iron plant of the Electrotherm steel facility, with a total installed capacity of 30 MW. It is expected that 86,606 MWh will be generated from the waste heat energy content of the flue gases generated in the two DRI kilns. The project activity will result in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project correctly applies methodology ACM0012 version 01. It is demonstrated that the project 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 total emission reductions from the project are estimated to be 613868 t of CO2e over a 10 year crediting period, averaging 61386 t of CO2e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

The project will hence be recommended by SGS for registration with the UNFCCC.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Date: 7th November 2008

2. Introduction

2.1 Objective

Electrotherm India Ltd has commissioned SGS to perform the validation of the project: Electrotherm 30MW combined waste heat recovery and coal based captive power plant at Kutch 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.

2.2 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.

2.3 GHG Project Description

By installing two waste heat recovery boilers with a capacity of 28.5 TPH and 36 TPH respectively in order to generate power from the hot flue gases from the sponge iron kilns. The Project is a waste heat recovery power generation project using waste flue gas from two sponge iron kilns in the direct reduction iron plant of the Electrotherm steel facility, with a total installed capacity of 30 MW. It is expected that 86,606 MWh will be generated from the waste heat energy content of the flue gases generated in the two DRI kilns. The project activity will result in reductions of greenhouse gas emissions.

2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Pankaj Mohan	Lead Assessor	SGS India

3. Methodology

3.1 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.

A site visit was performed by Lead Assessor Pankaj Mohan on 19th and 20th November 2007and the results are summarized in Annex 1.

3.2 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	Ref ID	Means of Verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	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 A.1 to this report

3.3 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 A.2). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

3.4 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.

4. Validation Findings

4.1 Participation Requirements

The host Party for this project is India. India has ratified the Kyoto protocol on 26th Aug 2002. A Letter of Approval from Host Country was missing so CAR02 was raised. A copy of the letter dated 17th March 2008; issued by the Indian DNA (reference number 4/20/2007 – CCC) has been provided by the client which was verified from the original copy. Hence CAR02 was closed out.

Annex I Party has been identified in the PDD and the same has been checked with the project proponent. A Letter of Approval need to be submitted from Annex 1 party so CAR01 was raised. The PP submitted the Letter of Approval from Annex 1 Party dated 8th May 2008 having reference number ESG/17/2008. This was checked and found to be OK hence CAR01 was closed.

CAR03 was raised to get the modalities of communication. The PP provided the modalities of communication. The modalities of communication dated 13th October 2006 was received and checked. This was found to be OK and hence CAR03 was closed out.

4.2 Project Design

The project is a waste heat recovery power generation project using waste flue gas from two sponge iron kilns in the direct reduction iron plant of the Electrotherm steel facility. The project is under implementation as per the schedule mentioned in the PDD. The documentary evidences of the project design were checked during the site visit by the validator along with the proposed schedule.

NIR04 was raised to get the documentary evidences for the design details of the plant mentioned in the PDD. The PP responded by providing the Purchase orders to Cethar vessels for WHRB boilers of 28.5 TPH and 36 TPH dated 15th May 2006. The PP also provided the work order to Ishwar Construction Company dated 10th October 2006. These were cross checked with original copies of PO and found that the purchase order numbers PP/02-B & PP/02-C dated 15th May 2006 and work order number ETK/PP/06-07/357 dated 3rd October 2006 were found to be correct and obtained the copies for the same. This was accepted and hence NIR04 was closed out.

NIR05 was raised for getting the clarification on the ownership of the project activity. The PP provided the land agreement for the project activity. This was checked and found that the land agreement dated 3/1/2005 is in regional language and the English translation is approved by the Notary Government of India on 12/04/2008. This was accepted and hence NIR05 was closed.

CAR06 was raised to get the project scope corrected in PDD. The PP provided the revised PDD correcting the scope of project activity. This was checked from the revised PDD and found to be satisfactory and in line with the scopes mentioned on UNFCCC website. This was accepted and hence CAR06 was closed.

The project will reduce the GHG emissions were not clearly described in PDD so CAR07 was raised. The PP provided the revised PDD mentioning the technology and how it reduces the GHG emission reductions clearly. The PDD was revised and checked by the lead assessor. This was found to be OK and hence CAR07 was closed.

NIR08 was raised for getting the clarification that there will be no change in technology during the entire crediting period with more efficient technology. The PP replied by providing the letter that there will be no change in technology during the entire crediting period. This was checked by interviewing the management people during the site visit. After getting the satisfactory replies to the queries this was accepted along with the letter dated 30th May 2008 and hence NIR08 was closed.

The PDD is mentioning about the training and maintenance of the project activity but the documentary evidence for the same was not provided hence NIR09 was raised. The PP replied by providing the training letters from Cethar vessels and Yokogawa India limited. The PP also provided the revised PDD mentioning the training and maintenance of the project activity. The revised PDD received was checked and found to be in line with the query raised. This was also checked from the letters from the suppliers dated 4th December 2007 and 4th May 2007 which mention that the supplier will provide the training during establishment and commissioning of the project activity. This was cross checked during the interview of operations personnel

during the site visit. The scanned copy of the training requirements were o obtained. Hence this was accepted and NIR09 was closed out.

The PDD was mentioning the schedule for implementation but the schedule was not followed as checked during the site visit so the reasons for delays were asked hence NIR10 was raised. The PP provided the justification that the project was delayed due to delay in providing the equipments from supplier side. The revised PDD was submitted. The PDD received was cross checked and found to be OK. The revised PDD is mentioning the revised implementation schedule and this was checked during site visit and found that the project is under implementation as checked during the site visit. Hence this was accepted and NIR10 was closed out.

NIR11 was raised for getting the clarification on no public funding involved in the project activity. The PP responded by providing the letter that there is no public funding involved and they have taken loans from the banks and financial institutions. The letter was checked by interviewing the personnel and the loan documents were also cross checked. The justification was accepted and hence NIR11 was closed out.

CAR12 was raised as the project boundary was not mentioned transparently. The PP provided the revised PDD mentioning the project boundary clearly and transparently. The project boundary was checked during site visit physically by the validator. The revised PDD received was checked and found that the project boundary is mentioned transparently and as checked during the site visit. Hence this was accepted and CAR12 was closed.

NIR14 was raised as the start date of project activity and CDM consideration documents were not provided by the PP. The PP replied by providing the proof of start date as work order for construction starting and also provided the CDM consideration proof and discussion with other CDM consultants before awarding the order to the consultant. They also provided the copy of ERPA signed for the project activity. This was accepted and hence NIR14 was closed.

4.3 Baseline Selection and Additionality

The project is using baseline methodology ACM0012 version 1. The project has selected the grid as baseline. SGS has validated that this approach is the correct one by checking initial investment cost through the loan documents, electricity bill and Joint Plant Committee report. The project activity is using grid as baseline as in the absence of project activity PP was also operating its integrated steel plant by importing power from grid. The baseline selected is “import of power from grid “ is the most economically attractive baseline and it is as per approved methodology ACM0012 which says that economically attractive baseline should be selected from all the alternatives.

The alternatives reviewed for the baseline scenarios were (a) waste heat use (b) power generation in the absence of the project activity and (c) steam/heat generation are not applicable within the project context since the project activity does not co-generate steam. It has found that the most likely scenarios would be the (a) release of waste heat into the atmosphere without any productive use and (b) import of electricity from the grid to meet the internal energy demands.

a) Use of Waste Heat

With regard to (a), the options to directly release the waste heat to the atmosphere(W1), to release waste heat after incineration (W2), export of waste heat as energy source to a third party (W3) or the use of waste heat for meeting internal thermal energy demands (W4). It was found that waste heat cannot be incinerated due to a lack of hydrogen and methane and because there are no legal requirements to incinerate waste heat. An energy export of process steam seems also not economic since there is no suitable consumer located close to the project site. Lack of infrastructure would impose barriers to the economic use of waste heat as energy source. As regards the use of waste heat for internal thermal applications, there is currently no demand within the sponge iron or the steel plant other than to feed the boilers and generate electricity, which corresponds to the project activity and is not viable in absence of CDM as demonstrated in the barriers analysis. Out of all realistic and credible baseline alternatives for the use of waste heat, the only reasonable option is the direct release of waste heat into the atmosphere without incineration or any productive use.

b) Power Generation

Regarding options for (b) the supply of electricity in the absence of carbon funding, the DOE has undertaken a very careful review of the current business practice of supplying power to a sponge iron plant (common

practice analysis) in the region in which the project activity is located. As evidenced under 1) barrier analysis, the common practice of supplying electricity is a mix of thermal captive power and grid electricity. In section B.4. of the PDD, the DOE investigated several options for electricity supply to a sponge iron plant. Among those, it has estimated the likelihood of the implementation of the project activity without having access to carbon funding (P1), the generation of electricity in an existing or newly built fossil fuel fired captive power plant (P4), the generation of electricity in an existing or newly built renewable energy captive power plant (P5), the generation of electricity in the grid (P6) and the generation of electricity in a captive waste heat recovery power plant of lower efficiency than the proposed project activity (P7). Alternatives P2, P3 and P8 relate to cogeneration of heat and electricity and are therefore not applicable to the project activity.

P1: With regard to the alternative of installing the project activity without CDM funds, This has been validated thorough common practice and barrier test as discussed under 1) barrier analysis and found that the project activity faces prohibitive barriers due to the business as usual scenario in the sponge iron industry in the region, where no waste heat recovery power plants exist and considerable barriers due to technological characteristics of such a type of project activity that increase the risk involved in waste heat recovery and discourage investment. The DOE has therefore eliminated this alternative as potential baseline scenario.

P4: In order to evaluate the probability of generating electricity from an existing or new captive thermal power plant as baseline alternative, the DOE has referred to its observations during the common practice analysis, in which it has found that most of the existing sponge iron plants in the region in which the project activity is located supply electricity through import of electricity from the grid. It has further checked the current power supply arrangements for the project proponent since 2005 existing sponge iron plant. It found that the existing sponge iron and steel plant are drawing power from the grid. The plant is able to reliably supply almost the entire electricity needs of the sponge iron and steel plant. The DOE has validated the actual electricity supply situation since 2005 for the existing plant through an on-site inspection during validation. The copies of electricity bills were checked during validation. This option was eliminated on the basis of initial investment cost and common practice in the region. This was also ruled out on the basis of conservativeness of emission factor.

P5: Another baseline alternative is the generation of electricity from renewable sources. This was eliminated on the basis of economic unattractiveness of the renewable electricity generation.

P6: In order to evaluate the probability of generating electricity in grid connected power plants and importing it to the sponge iron and steel plant as baseline alternative. This was accepted as baseline alternative on the basis of common practice in the region as checked during the site visit. This was also validated on the basis of existing practice by the project proponent for the old plant i.e. import of electricity from the grid and meeting all its demands for sponge Iron and steel manufacturing. This was also checked from the existing electricity bills as well. This was also accepted on the basis of conservativeness of emission factor. Hence this was accepted as Baseline scenario.

P7: An alternative of lower efficiency would even be less attractive to the project developer than the proposed project activity since the waste heat recovery boilers would have a lower output (the amount of waste heat available being fixed by the amount of iron ore produced) and so lower revenues, while the investment cost of an inefficient system would not be very different from that of an efficient system. The DOE has therefore eliminated this option on the same grounds as it has eliminated the proposed project activity from the list of potential baseline alternatives.

The discussion above demonstrates that the only remaining credible and realistic baseline alternatives (potential baseline alternatives) are (a) the continuation of release of waste heat into the atmosphere without incineration and (b) the import of power from the grid.

The PDD was mentioning all the plausible baseline scenarios. The baseline scenario selected in the original PDD was coal based power plant but it was not clear why coal was selected as baseline instead of grid which is more conservative than coal and also presently the PP was importing the power to meet the needs of the existing sponge iron and steel plant. So CAR13 was raised. The PP provided the revised PDD mentioning grid as the likely baseline due to current practice in the region and also followed by PP in the absence of project activity and conservativeness of emission factor. The PP also provided the electricity bill and The Joint plant committee report (JPC) “Survey of Indian Sponge Iron Industry 2005-06” was also provided to prove the common practice in the region. The electricity bill and JPC report along with the revised PDD was verified and found that the documents provided are correct and grid was accepted as the baseline option. The baseline option was judged on the basis of initial investment cost, electricity bill and JPC report page 38

which clearly shows import of power from grid is the common practice in the region, which is also followed by PP presently for the old sponge iron and steel plant and it is conservative as well. We have reached the conclusion that the grid is the most applicable baseline scenario. So this was accepted and CAR13 was closed out.

CAR15 was raised as the Step 1 of section B.5 was not clear with the identified potential realistic baseline scenarios mentioned in section B.4 of the PDD. The PP provided the justification that the baseline scenario has been revised and the only attractive alternative to the PP is to continue importing power from the grid. Both grid import and coal based captive generation is in compliance with the host country regulation. These were checked from the revised PDD page 19. The host country regulation allows both grid import and coal based captive power plant as checked from MoEF guidelines as well. This was accepted and hence CAR15 was closed.

CAR16 was raised as step 3a & step 3b of barrier analysis was not transparently described. The proofs for technological barrier, common practice barrier and other barriers were not provided by the PP. The hard copies of documents / websites mentioned in PDD page 18 to 22 needs to be provided by PP. The PP clarified by providing the revised PDD and hard copies of documents mentioned in PDD page 18 to 22. The PP also referenced the statements clearly in the revised PDD. The following documents were verified to check the barriers mentioned in the PDD.

i) Steelworld.com – Steal Research Papers: Coal : The most critical raw material for sponge iron making, http://www.steelworld.com/coalcri.htm 30.08.2007.
ii) Ministry of Coal, Government of India: The Expert Committee on Road Map for Coal Sector Reforms, New Delhi, December 2005, page 58
iii) P.R.K. Raju: Sponge Iron Industry – An overview of problems and solutions; published in: Steelworld, July 2005;p. 20 ; http://www.steelworld.com/technology7.pdf, 30.08.2007
iv) Joint Plant Commitee: “Survey of Indian Sponge Iron Industry 2005-06 – Highlights and findings, 2005-06”, page 6
v) http://www.rimbach.com/scripts/Article/PEN/Number.idc?Number=12 which states that the three most common problems with this solution are: 1. For effluent air streams with particulate or sticky matter entrained, the effluent clogs the heat exchanger requiring frequent cleanings which means down time and additional cost.
vi) Patel M.R., Navin Nath - Improve Steam Turbine Efficiency, http://www.iffco.nic.in/applications/Brihaspat.nsf/d111b7bb8d3d76bbe525656f00324885/fddd5567e90ccfbde52569160021d1c8/$FILE/turbine.pdf , 30.08.2007, page 3-6
vii) Ban on ore prices gain momentum; published in Steel world, January 2006, page 8 http://www.steelworld.com/analysis0106.pdf

The project has selected technical barriers to proof additionality. SGS has validated that the technological barrier is real and relevant and preventing the project from being implemented after verifying all these publically available documents mentioned above for the barriers faced in the project activity. This was concluded that the barriers are there in the project activity and the hard copies were also obtained and hence CAR16 was closed.

CAR17 was raised as Step 4a and 4b (common practice) were not transparently addressed in the PDD. The PP provided the revised PDD and also provided the hard copies of documents from external and professional bodies which came to the conclusion that WHR is not present in the state of Gujarat. The documents checked and obtained the hard copies are as

a) CEA: Report on Tapping of Surplus Power from Captive Power Plants
b) Joint Plant Commitee: “Survey of Indian Sponge Iron Industry 2005-06 – Highlights and findings, 2005-06”, page 7
c) Joint Plant Commitee: “Survey of Indian Sponge Iron Industry 2005-06, 2005-06”, page 38
d) Captive Power Plants: Case Study of Gujarat, India, p. 11, 13, 16, 23-31,
e) Industries Commissionerate, Government of Gujarat.
f) letter from Kutch Iron and Steel Association stating that they are the first in the region of kutch but there are 2 to 3 plants which have applied WHRB plants but on the basis of CDM only.

These documents were accepted for the common practice in the region and hence CAR17 was closed.

4.4 Application of Baseline Methodology and Calculation of Emission Factors

The project is based on Baseline methodology ACM0012 version 1 EB3206 July 2007 valid up to 01 November 2007. . The methodology is applicable to the project activity as the project meets the applicability criteria of the methodology as checked during site visit and review of the PDD. The emission factor taken at present is western regional grid emission factor from data base provide by CEA version 03. This was validated from http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm and found that the value used is 0.79tCO2/MWh and is fixed ex-ante.

The baseline calculations were not clearly mentioned and the three years historic data was also not available for the project activity as checked from the methodology ACM0012 version 1 EB32. CAR18 was raised. The PP and DOE sought the clarification from UNFCCC. The AM_CLA_0071 was provided by UNFCCC which states that the most relevant manufacture's data for normal operating conditions should be used. In case of new facilities or where data is not available the manufacture's data for normal operating conditions shall be used. Since the project is a new facility and data for three years prior to the project implementation is not available the approach for new facilities is used. This was as per AM_CLA_0071 so this was accepted and hence CAR18 was closed.

NIR19 was raised as the page 29 of PDD does not show any calculation to be reproduced in transparent manner. The PP clarified that the revised PDD is mentioning the formulas and data in section B.6.1, B.6.2, B.7.1 and Annex 3 respectively. Based on formulas and data provided the ER estimation can be reproduced transparently. The revised PDD was checked and found to be OK and hence NIR19 was closed.

CAR20 was raised as section B.6.1 of PDD was not mentioning anything on leakage. There is no calculation as well. The PP clarified that no leakage is applicable as per ACM0012 version 01 EB32 page 20. The methodology was checked and found to be in order and hence CAR20 was closed.

CAR21 was raised to get the emission reduction calculation sheet along with the uncertainty calculation. The PP clarified that the ER calculation sheet was provided and uncertainty calculation is not required as per methodology. This was checked from the methodology. The spreadsheet provided was also checked and found to be in order and as per methodology. This was accepted and CAR21 was closed.

CAR22 was raised for the data provided in section B.6.2 of PDD is not as per methodology for Q BL Product, Qwg Product, EFCO2 EL y & QWG,BL. The Plant efficiency also needs to be substantiated with documentary evidences. The PP clarified that as the baseline has got changed from coal to grid so the EFCO2 EL y and

Plant efficiency are not applicable. The revised PDD and methodology was checked and found that the justification is accepted and other parameters are mentioned as per methodology and AM_CLA_0071. These were accepted and hence CAR22 was closed.

CAR23 was raised as the PDD is not mentioning the ER calculations transparently in section B.6.3 of PDD. The PP provided the revised PDD and also mentioned the data in section B.6.1, B.6.2, B.7.1 and Annex 3. The section B.6.3 can be reproduced transparently on the basis of data mentioned in these sections. The Revised PDD was checked and the calculations were also checked and found to be in order. Hence CAR23 was closed out.

NIR24 was raised as the table needs to be corrected as per baseline emission also need to be checked further. The PP provided the baseline emission according to clarification provided by UNFCCC i.e. AM_CLA_0071. The baseline emission were checked and found to be in accordance with the AM_CLA_0071. This was found to be OK and hence NIR24 was closed.

4.5 Application of Monitoring Methodology and Monitoring Plan

The monitoring methodology applied is ACM0012 version 1 EB32 06 July 2007 valid up to 01 November 2007. The applicability criteria of monitoring methodology was checked and found that the monitoring plan is in accordance with the monitoring methodology and clarification accepted from UNFCCC AM_CLA_0071.

NIR25 was raised for the waste gas monitoring required for the project activity which is not installed at present on the site. PP clarified that the flow meter is under installation at present for the parameter QWGy. This was verified from the PO provided by the PP and also clarified from the management personnel during site visit. This will be checked during verification. This was accepted and hence NIR 25 was closed.

NIR26 was raised to get the clarification that the meters mentioned in PDD will be installed at site. The PP clarified that the meters are currently being installed and evidence that the meters are installed will be checked during verification. The PP also provided the meter specifications and PO copies of the contract. This was checked and found to be in order and hence NIR26 was closed.

NIR27 was raised for getting the clarification that the PDD is not mentioning the data uncertainty in section B.7.1. The PP clarified that the data will be measured with suitable meters which will be calibrated as per manufacturers specifications and this is mentioned in revised PDD page 38/39 and Annex 4. As the project activity is future project activity so the procedures will be developed after installation of project activity. This was accepted after verifying the revised PDD and by interviewing the management personnel during site visit. Hence NIR27 was closed.

QA/QC procedures were not sufficiently described in PDD for ensuring high quality data so NIR28 was raised. The PP clarified that the revised PDD contains the schematic diagram of the proposed monitoring staff as well as draft roles and responsibilities of the monitoring staff. Procedures are currently under development as the project activity is the future project activity. The revised PDD was checked and found that it is mentioning the schematic of monitoring staff and also mentioned the roles and responsibilities of monitoring staff. This was accepted and hence NIR28 was closed.

NIR29 was raised as the roles and responsibility for registration and reporting is not mentioned in the PDD. The PP provided the revised PDD by mentioning the role and responsibility for registration and reporting. This was checked from the revised PDD and hence NIR29 was closed.

NIR30 was raised as the PDD was not clear on unique feature of CDM project activity, Monitoring, Monitoring equipments, Measurement, Reporting, Internal Audit, Emergency preparedness, Calibration, Maintenance, day to day record handling and project performance reviews in Annex 4. The PP clarified by providing the revised PDD and mentioning that the equipment and method of measurement is provided in section B.7.1 and the procedures are mentioned in Annex 4 of PDD. The revised PDD was checked and found to be in order and hence NIR30 was closed.

4.6 Choice of the Crediting Period

The project start date mentioned in PDD is 16th May 2006 but the operational life time was not mentioned clearly in the PDD so NIR31 was raised. The PP clarified that the start date of project activity is 3rd October 2006 when the contact for civil work was provided to the civil contractor and this has been rephrased in the revised PDD. The PP also mentioned the operational life time of project activity clearly. The work order copy and revised PDD was checked and hence NIR31 was closed.

NIR32 was raised to get the clarification that the PDD is mentioning 10 years as crediting period but the ER was calculated for 7 years only. The PP corrected the ER's and calculated them for 10 years. This was checked in the revised PDD and the fixed crediting period of 10 years is chosen. This was accepted and hence NIR32 was closed.

4.7 Environmental Impacts

NIR33 was raised as the Environment impact analysis (EIA) is not sufficiently described in PDD. The PP clarified by mentioning the environmental impacts more transparently in the revised PDD. The revised PDD was checked and found to be in order and hence NIR33 was closed.

There was no negative environmental impact seen or reported during the site visit.

4.8 Local Stakeholder Comments

NIR34 was raised to get the documentary evidences for local stake holder consultation, minutes of meeting, media used to invite comments. The PP provided the documentary evidences for stakeholder consultation process, invitation letters, and comments from stake holders and replies to the comments. The documents provided were checked and found that the local stake holder consultation was carried out transparently and mentioned in revised PDD as well. This was accepted based on local stake holder consultation during site visit. Hence NIR34 was closed.

5. 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.

5.1 Description of How and When the PDD was Made Publicly Available

The Project Design Document for this project was made available on the SGS website http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=364 and was open for comments from 16-10-2007 until 14-11-2007. Comments were invited through the UNFCCC CDM homepage

5.2 Compilation of all Comments Received

Comment Number	Date Received	Submitter	Comment
1	08-11-2007	Hiral	1. As mentioned in part D.1, it is not true that Environmental Impact Assessment is not required for establishment of power plant. It is required as per S.O.1533 dated 14 September 2006. 2. As mentioned on page no. 7 there is no regulation on use of fossil fuel but there is regulation on air emission from plant through Consent under Air Act and Environmental Clearance. 3. At page 7 it is written that project activity takes place at completely newly installed facility. Please check as Electrotherm India Ltd. is existed at this place for sponge iron manufacturing. 4. Environmental Impact Assessment for expansion of Electrotherm plant was carried out in year 2006 including cogen coal based power plant. It has mention of impacts of project on environmental parameters mainly air, noise, water and ecology. Please check as per the guideline in same report whether Environment Management Plan is operative? 5. Is there any national or international guideline from concern authority for monitoring of CDM project? Please explain. 6. Whether local villagers would be beneficiary of CDM revenue earned by company? Any plan has been develop to earmark certain fund from CDM revenue for community welfare?

5.3 Explanation of How Comments Have Been Taken into Account

PP Response 1. The project is not expected to create severe environmental impacts, and an EIA is not required for the establishment of the power plant since the total investment cost is below INR 1,000,000,000. However, an EIA was carried out by the project developer because the sponge iron plant and the power plant

were planned and implemented almost simultaneously and the investment cost for both projects exceeds the above mentioned threshold. The EIA did not identify any adverse impacts resulting from the project activity.

DoE Response:- This was checked from the EIA notification from Ministry of Environment and forests (MoEF) web site but the PP got the EIA done for both the Kiln and power plant. This was verified from EIA report during the site visit. There were no negative impacts from the Project activity as mentioned in the EIA. This was found to be OK so this comment is closed out.

PP Response 2. As mentioned in the PDD, the plant will have an electrostatic precipitator which will limit particle emissions to less than 150mg/Nm3. Particle emissions will therefore meet the regulations governing air pollution (Air Prevention and Control of Pollution Act, 1981). There is no water pollution associated with the plant as water will only be used for indirect cooling and steam generation.

DoE Response:- During the site visit PO was checked which clearly states that the ESP will be installed and this will limit the particle emissions less than the prescribed limit of 150mg/Nm3. This will meet the regulations and this will be checked from consent to operate from State pollution control board during verifications as well. This was accepted and the comment was closed out.

PP Response 3. The project activity is implemented at a newly installed sponge iron plant which is located within the premises of the existing steel factory of Electrotherm India Ltd.

DoE Response:- This was checked during the site visit that the project activity is implemented at a newly installed sponge iron plant which is located within the premises of the existing steel factory of Electrotherm India Ltd. This was checked and comment was closed out.

PP Response 4. The review of an Environmental Management Plan is not subject to a CDM validation in cases where no significant environmental impacts are identified during an EIA. As the EIA did not discover significant environmental impacts due to the installation of a waste heat recovery power plant, the investigation of an operational Environmental Management Plan is not subject to the CDM validation.

DoE Response: - EIA report was checked and found that there are no significant environmental impacts due to installation of project activity. This was accepted after interviewing the local people as well during the site visit. Hence the comment was closed out.

PP Response 5. Yes, the UNFCCC prescribes a monitoring scheme related to a specific baseline methodology. This monitoring plan is under implementation as is subject to the CDM validation. The web-link http://cdm.unfccc.int provides all the details.

DoE Response:- United Nations Frame work Convention of Climate Change (UNFCCC) secretariat along with the CDM EB is responsible for monitoring of CDM projects. The web-link http://cdm.unfccc.int was checked and found to be OK. Hence comment was closed out.

PP Response 6. Yes, the CDM as a multilateral financing instrument for CO2-reduction projects promotes the implementation of such type of projects that adopt clean technologies to reduce CO2 emissions below the baseline CO2 levels and which would not have happened without the CDM financing. Such projects are required to be in line with the national guidelines of ‘sustainable development’ and therefore carry along benefits related to the improvement of the livelihood of local communities. The Electrotherm CDM project creates additional jobs and enables unskilled labor to build skills in operating such new and clean technology. Apart from that, no CDM fund as such has been provided for community welfare.

DoE Response:- This was checked from the records for new employment and during local stake holder consultation from the local people that the project activity has created lot of job opportunities for unskilled labors as well. The project is in line with sustainable development of the host country was checked from the Host country approval issued by the Indian DNA. Hence this was accepted and comment was closed.

6. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
19-11-2007	Naveen Nakara	Director	CDM consideration
19-11-2007	Henning Thiel	Consultant	PDD baseline, additionality, Monitoring plan, local stake holder consultation etc.

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/ PDD version 01 dated 01-10-2007
/2/ PDD version 02 dated 18-01-2008
/3/ PDD version 03 dated 25-05-2008
/4/ Letter of Approval (Host country) dated 17-03-2008 having No.4/20/2007-CCC
/5/ Letter of Approval (Annex 1) dated 08-05-2008 having reference number ESG/17/2008
/6/ Modalities of Communication dated 13-10-2006

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/ Loan Agreement of 24-02-2006
/2/ Purchase orders of 28.5TPH & 36TPH WHR Boilers dated 15-05-2006
/3/ Civil construction works order dated 03-10-2006
/4/ ER purchase agreement (ERPA) dated 13-10-2006
/5/ 9 weeks training letter from Boiler supplier (Cethar vessels) dater 04-12-2007
/6/ 12 days Training letter for DCS training dated 04-05-2007 from DCS supplier (Yokogawa)
/7/ Exhaust Gas specifications from Industrial Technical consultant dated 06-12-2007
/8/ Project report No. EIL-HIQ-4020-PCP-01 of August 2006
/9/ Land agreement dated 03-01-2005 certified by Notary (a GOI authorized) on 27-02-2008
/10 Stake holder consultation invitation letters
/11/ Additionality documentary evidences from Steel world .com,
/12/ EIA report
/13/ Baseline proofs as electricity bill and letter from Kutch association dated 26-05-2008
/14/ Start date of crediting period letter dated 30-05-2008
/15/ Letter from Kutch association dated 26-05-2008 for additionality proof as well.
/16/ http://www.steelworld.com/technology7.pdf for additionality proof
/17/ http://www.steelworld.com/coalcri.htm for additionality proof
/18/ Signed ERPA dated 13-10-2006
/19/ CEA version 3 for Emission factor of Western Regional grid.
/20/ Joint Plant Committee: “Survey of Indian Sponge Iron Industry 2005-06 page 7, 38
/21/ http://www.steelworld.com/analysis0106.pdf for additionality proof

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A.1 Annex 1: Local Assessment

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document for Electrotherm 30MW combined waste heat recovery and coal based captive power plant at kutch.

It serves as a "**reality check**" on the project that is completed by a lead assessor from SGS India Pvt. Ltd

Issue	**Findings**	**Source/Means of Verification**	**Further Action / Clarification / Information Required?**
Environmental impact	Discussion with management and site visit was done for physical verification.	Observation and Document Review (DR)	The PP provided the information on Environmental impacts through the document EIA.
Social impact	It was also observed that local community was also part as a working in the existing project activity.	Observation and interview	This was checked by physical verification during site visit and by interviewing the local people during site visit.
Stakeholders consultation	Discussion with the worker and management at the existing project activity, local government, community and NGO was undertaken. It was confirmed that positive response concerning the project.	Observation and interview	This was reviewed by minutes of meeting and interview during site visit.
Project boundary	Site visit and physical verification	Observation	This was checked by physical verification during site visit

Issue	Findings	Source/Means of Verification	Further Action / Clarification / Information Required?
Monitoring Plan	Discussion with Management	Observation, DR and Interview	This was discussed with PP and checked with methodology monitoring plan and found to be in accordance with methodology.

A.2 Annex 2: Validation Protocol

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

REQUIREMENT	REFERENCE	Comments	CONCLUSION
1. All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	Marrakech Accords, CDM Modalities §30	India ratified the Kyoto protocol	Y
2. 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.	Marrakech Accords, CDM Modalities §29 and §30	The project will assist the Annex 1 parties namely UK & Northern Ireland. Letter of Approval to be submitted.	CAR01 Y CAR01 closed
3. 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	Marrakech Accords, CDM Modalities §29 and §30 Kyoto Protocol Art. 12.2, Marrakech Accords, CDM Modalities §40a	Letter of approval to be submitted from Host country.	CAR02 Y CAR02 closed
4. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	Provide information on the global stakeholder process: website: http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=364 Starting date and closing date: 16-10-2007 to 14-11-2007. Number of comments received: 1	Y
5. The project design document shall be in conformance with the	Marrakech Accords,	The PDD is in conformance with UNFCCC	Y

REQUIREMENT	REFERENCE	Comments	CONCLUSION
UNFCCC CDM-PDD format	CDM Modalities, Appendix B, EB Decisions	CDM-PDD format.	
6. The project participants shall submit a letter on the modalities of communication (MoC) before submitting a request for registration	EB-09 F_CDM_REG form	Modalities of communication to be submitted by the PP.	CAR03 Y CAR03 closed
7. 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?		This is not a AR project.	Y

Table 2 PDD

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of Project Activity					
A.1. Project Title					
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	PDD	DR	The project title "Electrotherm 30MW combined waste heat recovery and coal based captive power plant at kutch" enables to identify the CDM project activity.	Y	Y
A.1.2. Are there an indication of a revision number and the date of the revision?	PDD	DR	The version number mentioned is version 01 dated 01-10-2007.	Y	Y
A.1.3. Is this in consistency with the time line of the project's history?	PDD	DR	This is consistent with the time line of the projects history.	Y	Y
A.2. Description of the project activity					
A.2.1. Is the description delivering a transparent overview of the project activities?	PDD	DR	The project activity is described transparently in the PDD. The technology used is combined waste heat recovery and coal based power generation using WHRB, FBC and a turbo-generator. The project contributes to sustainable development by creating employment opportunities in the region.	Y	Y
A.2.2. Is all information provided in compliance with actual situation or planning?	PDD	DR	All the information provided in the PDD is in compliance with actual situation / Planning. The design data details mentioned in the PDD needs to be supported by documentary evidences.	NIR04	Y NIR04 closed
A.2.3. Is all information provided consistent with details provided in further chapters of the PDD?	PDD	DR	Pending CARs / NIRs	pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
A.3. Project Participants					
A.3.1. Is the table required for the indication of project participants correctly applied?	PDD	DR	The table is correctly applied.	Y	Y
A.3.2. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	PDD	DR	Pending CARs / NIRs	pending	Y
A.4. Technical description of the project activity					
A.4.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	PDD	DR	The project location mentioned in PDD is Samikhiyali Village, Bhachau Taluk, Kutch District, Gujarat State, India. The geographical location is 23o 18' 17.34 North latitude, longitude 70o 28' 37.25 East	Y	Y
A.4.2. Do the project participants possess ownership or licenses which will allow the implementation of the project at that site / those sites?	PDD	DR	Ownership of the project activity & facility to be proved by the project participant.	NIR05	Y NIR05 closed
A.4.3. Is the category(ies) of the project activity correctly identified?	PDD	DR	The project category mentioned in PDD is scope 1&4 but scope 4 is mentioned as waste handling and disposal which is not in accordance with the scopes mentioned on UNFCCC we4bsite. Please clarify.	CAR06	Y CAR06 closed
A.4.4. Does the project design engineering reflect current good practices?	PDD	DR	The project design engineering reflects current good practices.	Y	Y
A.4.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance and is the explanation how the project will reduce greenhouse gas emission transparent and suitable?	PDD	DR	The technology applied in the project activity is described clearly and transparently. How the project will reduce the GHG emissions is not clear from the PDD.	CAR07	Y CAR07 closed
A.4.6. Is all information provided in compliance with actual situation or planning as available by the project	PDD	DR	The information provided in the PDD is in compliance with the actual situation / planning.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
participants?			This was checked during site visit.		
A.4.7. 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 is using the technology that will provide better performance than the commonly used technologies.	Y	Y
A.4.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	The project technology will be substituted or not is not mentioned in the PDD. Proof to be provided.	NIR08	Y NIR08 closed
A.4.9. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR	The project requires training and mentioned in PDD page 5 . This will be provided by six external engineers for a period of one year after installation of First WHR boiler. Proof for the same needs to be submitted.	NIR09	Y NIR09 closed
A.4.10. Does the project make provisions for meeting training and maintenance needs?	PDD	DR	This is mentioned in PDD page 5. pending NIR09	pending	Y
A.4.11. Is a schedule available on the implementation of the project and are there any risks for delays?	PDD	DR	The schedule is mentioned in PDD page 5. the schedule is not followed as checked during site visit. Please provide reasons for delay.	NIR10	Y NIR10 closed
A.4.12. Is the table required for the indication of projected emission reductions correctly applied?	PDD	DR	The table required for the indication of projected emission reductions correctly applied	Y	Y
A.5. Public Funding					
A.5.1. Does the information on public funding provided conform with the actual situation or planning as presented by the project participants?	PDD	DR	Provide documentary evidence for public funding is not used in the project activity.	NIR11	Y NIR11 closed
A.5.2. Is all information provided consist with details provided by further chapters of the PDD (in particular annex 2)?	PDD	DR	Pending NIR11	pending	Y
A.5.3. In case of public funding from Annex I Parties is it confirmed that such funding does not result in a	PDD	DR	Declaration from Annex 1 needs to be provided. Pending CAR01.	pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
diversion of official development assistance					
B. Baseline and Monitoring Methodology					
B.1. Choice and Applicability					
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	PDD	DR	The project is using ACM0012 version 1 EB32. The methodology is approved by CDMEB.	Y	Y
B.1.2. Is the baseline methodology the one deemed most applicable for this project?	PDD	DR	This is the only methodology applicable for this project activity.	Y	Y
B.1.3. Is the choice of the methodology correctly justified by the PDD and is the project in conformance with all applicability criteria of the applied methodology?	PDD	DR	The methodology ACM0012 version 1 is applicable for the project activity. The applicability conditions were checked from the methodology.	Y	Y
B.2. Project boundary					
B.2.1. Are all emission sources and gasses related to the baseline scenario, project scenario and leakage clearly identified and described in a complete manner?	PDD	DR	The emission sources and gasses related to the baseline scenario, project scenario and leakage clearly identified and described in the PDD section B.3.	Y	Y
B.2.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with EB guidance and the underlying methodology?	PDD	DR	The correct grid is identified in the PDD.	Y	Y
B.2.3. Are the project's spatial boundaries (geographical) and the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	PDD	DR	The project boundary is not clearly defined in the PDD.	CAR12	Y CAR12 closed
B.3. Identification of the Baseline Scenario					
B.3.1. Does the PDD discuss the identification of the most likely baseline scenario? Does the PDD follow the steps to determine the baseline scenario required by the methodology and is the application of the	PDD	DR	The PDD mentions the most likely and all the plausible baseline scenarios. The baseline scenario selected is coal based power plant but it is not clear why this is selected instead of grid	CAR13	Y CAR13 closed

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
methodology and the discussion and determination of the chosen baseline transparent?			which is more conservative than coal. Please justify.		
B.3.2. Does the application consider all potential realistic and credible baseline scenarios in the discussion taking into account relevant national and/or sectoral policies, macro-economic trends and political aspirations??	PDD	DR	All the potential baseline scenarios are discussed in the PDD considering national/ sectoral policies. Pending CAR13	pending	Y
B.3.3. Is the choice of the baseline compatible with the available data?	PDD	DR	The baseline selected is coal based power plant but there was no data available to prove the baseline selected. The documentary evidences for selection of coal as a baseline needs to be provided by the PP. The coal based power plant was not operational during the site visit and PP was still going with grid. Pending CAR13.	pending	Y
B.3.4. Is conservativeness addressed in the way of identifying the baseline?	PDD	DR	The baseline selected is not conservative. Please provide justification with documentary evidences. Pending CAR13.	pending	Y
B.3.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD	DR	Pending CAR13	pending	Y
B.4. Additionality					
B.4.1. Does the PDD clearly demonstrate the additionality using the approach as given by the methodology and by following all the required steps?	PDD	DR	The project is using tool for demonstration and assessment of additionality version 3. The PDD is following the steps required to be followed by tool of additionality.	Y	Y
B.4.2. In case of using the additionality tool: Are all steps followed in a transparent manner?	PDD	DR	All the steps are followed in the transparent manner.	Y	Y
B.4.3. Is the discussion on additionality and the evidence provided consistent with the starting date of the project	PDD	DR	Section C.1.1 mentions start date as 16th May 2006. Please provide the proof of the start date of project activity. Please provide the CDM	NIR14	Y NIR14 closed

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			consideration proof as well.		
B.4.4. Is the discussion on additionality consistent with the identification all potential realistic and credible baseline scenarios	PDD	DR	Step 1 is not clear and additionality is not consistent with the identified potential realistic baseline scenarios mentioned in section B.4 of PDD.	CAR15	Y CAR15 closed
B.4.5. If an investment analysis has been used, has it been shown that the proposed project activity is economically or financially less attractive than at least one other alternative without the revenue from the sale of CERs?	PDD	DR	No investment analysis is carried out for the project activity.	Y	Y
B.4.6. If a barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	PDD	DR	Step3a & 3b barrier analysis is not transparently described the proofs for technological barrier, Common Practice barrier & other barriers needs to be provided by the PP. The documents / website mentioned in PDD Page 18 to 22 hard copies to be provided by the PP.	CAR16	Y CAR16 closed
B.4.7. Has it been shown that the project is not common practice?	PDD	DR	Step4 common practice is not transparently described. The documentary proof for the data mentioned in substep 4a needs to be provided by PP. sub step 4b is also not clear as this is not mentioning about the similar activities operating in the state of Gujarat.	CAR17	Y CAR17 closed
B.4.8. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	PDD	DR	Pending CARs / NIRs	pending	Y
B.5. Application of the baseline methodology					
B.5.1. Has the approved methodology been applied correctly for determining **baseline emissions**?	PDD	DR	The approved methodology ACM0012 version 1 EB32 has been applied correctly but the baseline calculations needs clarifications as the three years historic data is not available for the project activity. This was checked during site visit.	CAR18	Y CAR18 closed

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			Please clarify. Also pending CAR13		
B.5.2. Has the approved methodology been applied correctly for determining **project emissions**?	PDD	DR	The approved methodology ACM0012 version 1 EB32 has been applied correctly but the formulas mentioned on page 29 of PDD but no calculation is shown to be reproduced in the transparent manner.	NIR19	Y NIR19 closed
B.5.3. Has the approved methodology been applied correctly for determining **leakage**?	PDD	DR	Section B.6.1 of PDD is not mentioning anything on leakage. There is no calculation as well.	CAR20	Y CAR20 closed
B.5.4. Where applicable, has the approved methodology been applied correctly for the **direct calculation of emission reductions**	PDD	DR	The methodology is applied correctly in this project activity.	Y	Y
B.5.5. Have all the methodological choices been explained, have they been properly justified and are they correct	PDD	DR	Pending CARs / NIRs	pending	Y
B.5.6. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	PDD	DR	The Excel sheet for emission reduction to be provided along with the uncertainty calculations.	CAR21	Y CAR21 closed
B.6. Ex-ante data and parameters used					
B.6.1. Are the data provided in compliance with the methodology?	PDD	DR	The data provided in section B.6.2 of PDD is not as per methodology for Q BL Product, Qwg Product, EFCO2 EL y & QWG,BL. The Plant efficiency needs to be substantiated with documentary evidences.	CAR22	Y CAR22 closed
B.6.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	PDD	DR	Pending CAR22	pending	Y
B.6.3. Is the vintage of the baseline data correct?	PDD	DR	Pending CAR22	Pending	Y
B.7. Calculation of Emissions Reductions					
B.7.1. Has the approved methodology been applied correctly for determining **emission reductions**?	PDD	DR	Pending CAR21	pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.7.2. Are the emission reduction calculations documented in a complete and transparent manner?	PDD	DR	The PDD is not mentioning the emission reduction calculations in section 6.3 transparently.	CAR23	Y CAR23 closed
B.7.3. Have conservative assumptions been used to calculate emission reductions?	PDD	DR	Pending CARs / NIRs	pending	Y
B.7.4. Is the projection based on provable input parameter?	PDD	DR	The input for baseline needs to be provided by PP along with documentary evidences. Pending CARs / NIRs	pending	Y
B.7.5. Is the projection based on same procedures as used for later monitoring or acceptable alternative models?	PDD	DR	Pending CARs / NIRs	pending	Y
B.7.6. Is the calculation of the emission reduction correct?	PDD	DR	Pending CARs / NIRs	pending	Y
B.8. Emission Reductions					
B.8.1. Will the project result in fewer GHG emissions than the baseline scenario?	PDD	DR	Pending CARs / NIRs	pending	Y
B.8.2. Is the form/table required for the indication of projected emission reductions correctly applied?	PDD	DR	The table needs to be corrected as Baseline emissions need to be checked further. Pending CARs / NIRs	NIR24	Y NIR24 closed
B.8.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	PDD	DR	Pending CAR / NIR	pending	Y
B.9. Monitoring Methodology					
B.9.1. Does the monitoring methodology provide a consistent approach in the context of all parameter to be monitored and further information provided by the PDD?	PDD	DR	The monitoring parameters are mentioned as per methodology ACM0012 version 1 EB32. pending CARs / NIRs	Y / Pending	Y
B.9.2. Does the monitoring methodology apply consistently the choice of the option selected for monitoring both of project and baseline emissions?	PDD	DR	The project & baseline parameters needs to be checked as baseline selected needs to be justified. Pending CARs / NIRs	pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.10. Data and parameters monitored					
B.10.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	PDD	DR	Pending CARs /NIRs	pending	Y
B.10.2. Are the choices of project GHG indicators reasonable and in conformance with the requirements set by the approved methodology applied?	PDD	DR	Project GHG indicators are reasonable and according to methodology ACM0012 version1. pending CARs / NIRs for baseline.	pending	Y
B.10.3. Will it be possible to determine the specified project GHG indicators?	PDD	DR	The waste gas monitoring required for the project activity needs to be carried out which is not installed at present. Please justify. Rest of the parameters are in accordance.	NIR25	Y NIR25 closed
B.10.4. Will the indicators enable comparison of project data and performance over time?	PDD	DR	Yes the indicators will enable the comparison over a period of time.	Y	Y
B.10.5. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the monitoring plan?	PDD	DR	The project is a future activity and presently in construction stage. The meters mentioned in parameters to be measured will be installed. Documentary evidence needs to be provided.	NIR26	Y NIR26 closed
B.10.6. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	PDD	DR	The monitoring plan presented in PDD does ensures the good quality of data but it will be depending on the installation of necessary metering. Pending NIR25.	pending	Y
B.10.7. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	PDD	DR	The monitoring approach is in line with the current good practices but it is pending NIR25.	pending	Y
B.10.8. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	PDD	DR	The formulae used are in compliance with monitoring methodology but the data cannot be reproduced in the verifiable manner. Pending	pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			CARs / NIRs		
B.11. Quality Control (QC) and Quality Assurance (QA) Procedures					
B.11.1. Is the selection of data undergoing quality control and quality assurance procedures complete?	PDD	DR	QA / QC procedures mentioned in Section B.7.1 , B.7.2 & Annex 4 are in accordance with methodology.	Y	Y
B.11.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?	PDD	DR	Data uncertainty is not mentioned in section B.7.1 of PDD.	NIR27	Y NIR27 closed
B.11.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	PDD	DR	QA/QC procedures are not sufficiently described for ensuring high quality data.	NIR28	Y NIR28 closed
B.11.4. Is it ensured that data will be bound to national or internal reference standards?	PDD	DR	The monitoring data will be reproducible & comparable and it will be matching the national reference standards. Pending CARs / NIRs	pending	Y
B.11.5. Is it ensured that data provisions will be free of potential conflicts of interests resulting in a tendency of overestimating emission reductions?	PDD	DR	Pending CARs / NIRs	pending	Y
B.12. Operational and management structure					
B.12.1. Is the authority and responsibility of project management clearly described?	PDD	DR	The authority and responsibility of project management is provided to CDM manager as mentioned in section B.7.2 of PDD.	Y	Y
B.12.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR	The authority and responsibility for registration and reporting is not mentioned in PDD.	NIR29	Y NIR29 closed
B.12.3. Are procedures identified for training of monitoring personnel?	PDD	DR	Staff training for monitoring is mentioned in section B.7.2 of PDD.	Y	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.13. Monitoring Plan (Annex 4)					
B.13.1. Is the monitoring plan developed in a project specific manner clearly addressing the unique features of the CDM activity?	PDD	DR	Missing in Annex 4	NIR30	Y NIR30 closed
B.13.2. Does the monitoring plan completely describes all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	PDD	DR	Missing in Annex 4	NIR30	Y NIR30 closed
B.13.3. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	PDD	DR	Missing in Annex 4	NIR30	Y NIR30 closed
B.13.4. Are procedures identified for calibration of monitoring equipment?	PDD	DR	Calibration procedure and frequency of each meter is missing in Annex 4	NIR30	Y NIR30 closed
B.13.5. Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	Maintenance procedure is missing in Annex 4	NIR30	Y NIR30 closed
B.13.6. 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	Record handling procedure is missing in Annex 4 of PDd.	NIR30	Y NIR30 closed
B.13.7. Are procedures identified for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems??	PDD	DR	Monitoring data adjustment and missing data is not mentioned in Annex 4 of PDD.	NIR30	Y NIR30 closed
B.13.8. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD	DR	Internal Audit procedure is missing in Annex 4 of PDD.	NIR30	Y NIR30 closed
B.13.9. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD	DR	Missing in Annex 4	NIR30	Y NIR30 closed

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.14. Baseline details					
B.14.1. Is there any indication of a date when determine the baseline?	PDD	DR	Yes, 01-10-2007	Y	Y
B.14.2. Is this in consistency with the time line of the PDD history?	PDD	DR	The time line is consistent with PDD history.	Y	Y
B.14.3. Is all data required provided in a complete manner by annex 3 of the PDD?	PDD	DR	Annex 3 mentions the baseline information. Pending CARs / NIRs	pending	Y
C. Duration of the Project / Crediting Period					
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD	DR	Section C.1.1 of PDD mentions 16th May 2006 as start date. Please justify with documentary evidences. Operational lifetime is not mentioned clearly.	NIR31	Y NIR31 closed
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	PDD	DR	PDD mentions fixed crediting period of 10 years but the emission reductions have been calculated for 7 years. Please clarify.	NIR32	Y NIR32 closed
C.1.3. Does the project's operational lifetime exceed the crediting period	PDD	DR	Pending NIR30	pending	Y
D. Environmental Impacts					
D.1.1. Does the project comply with environmental legislation in the host country?	PDD	DR	The project comply with the environmental legislations of the host country.	Y	Y
D.1.2. Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	Environmental impact analysis is not sufficiently described in PDD.	NIR33	Y NIR33 closed
D.1.3. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD	DR	EIA is not required as per host party.	Y	Y
D.1.4. Will the project create any adverse environmental	PDD	DR	Pending NIR32	pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
effects?					
D.1.5. Are transboundary environmental impacts considered in the analysis?	PDD	DR	Pending NIR32	Pending	Y
D.1.6. Have identified environmental impacts been addressed in the project design?	PDD	DR	Pending NIR32	Pending	Y
E. Stakeholder Comments					
E.1.1. Have relevant stakeholders been consulted?	PDD	DR	Stake holders have been consulted. documentary evidences needs to be submitted by PP.	NIR34	Y NIR34 closed
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	Media used is local newspapers. Documentary evidence needs to be provided by PP.	NIR34	Y NIR34 closed
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD	DR	Stakeholder consultation process for CDM has been carried out by PP. Documentary evidence needs to be submitted.	NIR34	Y NIR34 closed
E.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?	PDD	DR	Stakeholder consultation process is defined in transparent manner.	Y	Y
E.1.5. Is a summary of the stakeholder comments received provided?	PDD	DR	Summary is mentioned in the PDD. Documentary evidence needs to be provided. pending NIR34	pending	Y
E.1.6. Has due account been taken of any stakeholder comments received?	PDD	DR	Pending NIR34.	pending	Y

* MoV = Means of Verification, DR= Document Review, I= Interview

A.3 Annex 3: Overview of Findings

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	01	Type:	CAR	Issue:	Letter of Approval from Annex 1	Ref.:	1.2
Lead Assessor Comment					Date: 24/12/2007		
Letter of Approval from Annex 1 DNA (UK, Northern Ireland) is to be provided by the project proponent.							
Project Participant Response:					Date: 07/01/2008		
Will be provided after receipt of HNA							
Acceptance and Close out by Lead Assessor:					Date: 12/02/2008		
Information Provided: No information provided Information Verified: No information provided						Verified Document Reference: No information provided	
Reasoning for not acceptance or acceptance and close out: Pending CAR01 Open.							
Project Participant Response:					Date: 25-05-2008		
The Letter of Approval from Annex 1 DNA of the country 'United Kingdom of Great Britain and Northern Ireland' has been sent by email to the DOE on 20/05/2008. The file name is 'Electrotherm LoA.pdf'.							
Acceptance and Close out by Lead Assessor:					Date: 10/06/2008		
Information Provided: Letter of Approval from Annex 1 DNA Information Verified: Letter of Approval from Annex 1 DNA						Verified Document Reference: Letter of Approval from Annex 1 DNA	
Reasoning for not acceptance or acceptance and close out: CAR01 closed based on Letter of Approval from Annex 1 DNA							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	02	Type:	CAR	Issue:	Letter of Approval from Indian DNA	Ref.:	1.3
Lead Assessor Comment					Date: 24/12/2007		
Letter of Approval from Indian DNA is to be provided by the project proponent.							
Project Participant Response:					Date: 07-01-2008		
Will be provided after receipt of HNA							
Acceptance and Close out by Lead Assessor:					Date: 12-02-2008		
Information Provided: No information provided Information Verified: No information provided						Verified Document Reference: No information provided	
Reasoning for not acceptance or acceptance and close out: Pending CAR02 Open.							
Project Participant Response:					Date: 25-05-2008		
The Letter of Approval from the Indian DNA has been sent by email to the DOE on 20/05/2008. The file name is 'HNA Approval.pdf'.							
Acceptance and Close out by Lead Assessor:					Date: 10/06/2008		
Information Provided: Letter of approval from Indian DNA Information Verified: Letter of Approval from Indian DNA						Verified Document Reference: Letter of Approval from Indian DNA	
Reasoning for not acceptance or acceptance and close out: CAR02 closed based on Letter of Approval from Indian DNA.							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	03	Type:	CAR	Issue:	MOC	Ref.:	1.6
Lead Assessor Comment					Date: 24/12/2007		
Modalities of Communication need to be provided by the client.							
Project Participant Response:					Date: 07-01-2008		
Sent along with other documentary evidence to SGS.							
Acceptance and Close out by Lead Assessor:					Date: 12-02-2008		
Information Provided: MOC Information Verified: Modalities of communication copy dated 13th October 2006						Verified Document Reference: MOC dated 13th October 2006	
Reasoning for not acceptance or acceptance and close out: Modalities of communication copy dated 13th October 2006 have been received. This is accepted. CAR03 closed.							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	04	Type:	NIR	Issue:	Design data details	Ref.:	A.2.2.
Lead Assessor Comment					Date: 24/12/2007		
All the information provided in the PDD is in compliance with actual situation / Planning. The design data details mentioned in the PDD needs to be supported by documentary evidences.							
Project Participant Response:					Date: 07-01-2008		
Project report and equipment orders incl. technical specifications sent along with other documentary evidence to SGS							
Acceptance and Close out by Lead Assessor:					Date: 12-02-2008		
Information Provided: Project report of August 2006, Equipment orders Information Verified: Project report of August 2006, Equipment orders						Verified Document Reference: Project report of August 2006 Equipment orders	
Reasoning for not acceptance or acceptance and close out: Project report of August 2006 has been received from the PP and checked that it is mentioning the Technical specifications as well. Equipment orders were also received from the PP and checked. NIR04 closed.							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	05	Type:	NIR	Issue:	Ownership of the project activity	Ref.:	A.4.2.
Lead Assessor Comment					Date: 24/12/2007		
Ownership of the project activity & facility to be proved by the project participant							
Project Participant Response:					Date: 07-01-2008		
Ownership evidence sent along with other documentary evidence to SGS							
Acceptance and Close out by Lead Assessor:					Date: 12-02-2008		
Information Provided: Land agreement Information Verified: Land agreement						Verified Document Reference: Land agreement	
Reasoning for not acceptance or acceptance and close out: Land agreement provided is in regional language. Please submit the certified Translated version. NIR Open							
Project Participant Response:					Date: 25-05-2008		
The certified translation of the document was sent by email on 20/05/2008 to the DOE. The file name is 'land ownership.pdf'.							
Acceptance and Close out by Lead Assessor:					Date: 10/06/2008		
Information Provided: Land ownership document Information Verified: Land ownership verified by Notary						Verified Document Reference: Land ownership verified by Notary	

Reasoning for not acceptance or acceptance and close out: NIR05 closed based on Land ownership verified by Notary.

Date:	24/12/2007			Raised by:	Pankaj Mohan			
No.:	06	Type:	CAR	Issue:	Project category		Ref.:	A.4.3.
Lead Assessor Comment						Date: 24/12/2007		
The project category mentioned in PDD is scope 1&4 but scope 4 is mentioned as waste handling and disposal which is not in accordance with the scopes mentioned on UNFCCC we4bsite. Please clarify.								
Project Participant Response:						Date: 07-01-2008		
Corrected to 'manufacturing industries' in revised PDD								
Acceptance and Close out by Lead Assessor:						Date: 12-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD							Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: The revised PDD received is mentioning the scope correctly. This is accepted. CAR06 closed								

Date:	24/12/2007			Raised by:	Pankaj Mohan			
No.:	07	Type:	CAR	Issue:	Technology applied		Ref.:	A.4.5.
Lead Assessor Comment						Date: 24/12/2007		
The technology applied in the project activity is described clearly and transparently. How the project will reduce the GHG emissions is not clear from the PDD.								
Project Participant Response:						Date: 07-01-2008		
The updated version 2 of the PDD mentions: In A 2: 'Till date, the Project Developer has been drawing electricity from the grid to supply power to its integrated steel plant. The electricity generated by the WHR boilers would in the absence of the CDM be generated by the grid or by the coal fired captive power plant which is under installation, both technologies with higher carbon intensity.' In A 4.3: 'The project activity will generate about 79,571MWh of electricity from waste flue gases and therefore does not emit any greenhouse gases. In the absence of the project activity, the same amount of electricity would have been imported from the grid or produced by a coal based captive power plant.' In B 4: 'This scenario represents a likely option for the project developer. Presently, the steel plant is drawing its entire energy supply from the grid. The project developer has the option to install a 30 MW thermal captive power plant. In fact, two 65 TPH FBC boilers are being installed at the project site anyway, which are able to produce 30MW of power. This scenario represents the current practice at the project site. Grid electricity is used for power supply in the steel plant of the project developer. There is no additional investment required for the continuation of this practice. Continuing to use the power from the grid does not expose the project developer to any risks and does not require any resources. This option is a viable option for the project developer. After the consideration of different baseline alternatives for power generation and alternative uses of waste gas, as well as the identification of the most plausible choice of the baseline fuel, it can be concluded that the baseline is either the supply of electricity from the grid or the generation of an equivalent amount of electricity by a coal based captive power plant. In order to maintain conservativeness, grid electricity is selected as baseline scenario.'								
Acceptance and Close out by Lead Assessor:						Date: 12-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD							Verified Document Reference: Revised PDD	

Reasoning for not acceptance or acceptance and close out: The revised PDD mentions the technology used and how the project activity reduces the GHG emissions is mentioned. CAR07 closed

Date:	24/12/2007			Raised by:	Pankaj Mohan			
No.:	08	Type:	NIR	Issue:	No technology substitution		Ref.:	A.4.8.
Lead Assessor Comment						Date: 24/12/2007		
The project technology will be substituted or not is not mentioned in the PDD. Proof to be provided								
Project Participant Response:						Date: 07-01-2008		
The updated version 2 of the PDD mentions in section A 4.3: 'During the crediting period, the project equipment is not expected to be substituted by other or more efficient technologies.'								
Acceptance and Close out by Lead Assessor:						Date: 12-02-2008		
Information Provided: Undertaking letter for no technology substitution Information Verified: Undertaking letter for no technology substitution							Verified Document Reference: Undertaking letter for no technology substitution	
Reasoning for not acceptance or acceptance and close out: The revised PDD and letter from PP dated 28-11-2007 is provided but this letter could not be accepted as it is addressed to a specific person and it mentions start date of crediting period as 1st March 2007. NIR08 open								
Project Participant Response:						Date: 4-06-2008		
Letter stating a revised start of the crediting period and addressed to whom it may concern sent by email on 4.June 2008, the file name is 'crediting period EIL letter'.								
Acceptance and Close out by Lead Assessor:						Date:		
Information Provided: Undertaking letter for no technology substitution and start date of crediting period as well Information Verified: Undertaking letter for no technology substitution and start date of crediting period as well							Verified Document Reference: Undertaking letter for no technology substitution start date of crediting period as well	
Reasoning for not acceptance or acceptance and close out: NIR8 closed based on Letter from the PP.								

Date:	24/12/2007			Raised by:	Pankaj Mohan			
No.:	09	Type:	NIR	Issue:	Training & Monitoring		Ref.:	A.4.9.
Lead Assessor Comment						Date: 24/12/2007		
The project requires training and mentioned in PDD page 5 . This will be provided by six external engineers for a period of one year after installation of First WHR boiler. Proof for the same needs to be submitted.								
Project Participant Response:						Date: 07-01-2008		
The updated version 2 of the PDD mentions in section A 4.3: 'Additional training for those employees is required and will be provided for a period of about two to three months by Cethar Vessels Ltd., which is the boiler supplier.' Proof sent along with other documentary evidence to SGS.								
Acceptance and Close out by Lead Assessor:						Date: 15-02-2008		
Information Provided: Training letters and mail dated 4th May 2007 Information Verified: Training letters and mail dated 4th May 2007							Verified Document Reference: Training letters and mail dated 4th May 2007	
Reasoning for not acceptance or acceptance and close out: Training letters from Cethar Vessels (P) Ltd. Dated December 4,2007 and mail from yokogawa India Limited dated 4th May 2007 were provided and checked during site visit. The revised PDD was also checked and found correct. NIR09 closed								

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	10	Type:	NIR	Issue:	Site Visit Issue	Ref.:	A.4.11.
Lead Assessor Comment					Date: 24/12/2007		
The schedule is mentioned in PDD page 5. The schedule is not followed as checked during site visit. Please provide reasons for delay.							
Project Participant Response:					Date: 07-01-2008		
The updated version 2 of the PDD mentions in section A 4.3 the updated implementation schedule. Delay has occurred due to the delay of WHR boiler delivery. Boiler suppliers are currently over challenged and cannot meet delivery schedules.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: The revised PDD is providing the updated implementation schedule and the delay was due to delayed delivery of WHR boiler. This was also checked during site visit. NIR10 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	11	Type:	NIR	Issue:	Public funding	Ref.:	A.5.1.
Lead Assessor Comment					Date: 24/12/2007		
Provide documentary evidence for public funding is not used in the project activity.							
Project Participant Response:					Date: 07-01-2008		
Loan agreements sent along with other documentary evidence to SGS.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: loan agreements Information Verified: loan agreements						Verified Document Reference: loan agreements	
Reasoning for not acceptance or acceptance and close out: The copies of loan agreements received were checked and found that it is in order . NIR11 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	12	Type:	CAR	Issue:	Project boundary	Ref.:	B.2.3.
Lead Assessor Comment					Date: 24/12/2007		
The project boundary is not clearly defined in the PDD.							
Project Participant Response:					Date: 07-01-2008		
The updated version 2 of the PDD clearly defines the boundary in section B 3							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: The revised PDD is mentioning the project boundary correctly and as checked during site visit. CAR12 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	13	Type:	CAR	Issue:	Baseline scenarios	Ref.:	B.3.1.
Lead Assessor Comment					Date: 24/12/2007		
The PDD mentions the most likely and all the plausible baseline scenarios. The baseline scenario selected is coal based power plant but it is not clear why this is selected instead of grid which is more conservative than coal. Please justify.							

Project Participant Response:	Date: 07-01-2008
The updated version 2 of the PDD identifies both; a coal based captive power plant as well as grid electricity import as most likely baseline alternatives. However, only grid electricity import is selected as baseline due to current practice as well as conservativeness: 'Taking into account that the project developer has been importing power from the grid prior to the CDM project activity and for the reason to maintain conservativeness, option P6 (grid electricity) is taken as baseline for this project.'(page 17)	
Acceptance and Close out by Lead Assessor:	Date: 15-02-2008
Information Provided: Revised PDD Information Verified: Revised PDD	Verified Document Reference: Revised PDD
Reasoning for not acceptance or acceptance and close out: The revised PDD is mentioning the baseline as grid. Grid was selected as baseline due to initial investment cost, Conservativeness of emission factor and also common practice in the region. This was accepted. CAR13 closed	

Date:	24/12/2007		Raised by:	Pankaj Mohan		
No.:	14	Type:	NIR	Issue:	Start date	Ref.: B.4.3.
Lead Assessor Comment					Date: 24/12/2007	
Section C.1.1 mentions start date as 16th May 2006. Please provide the proof of the start date of project activity. Please provide the CDM consideration proof as well						
Project Participant Response:					Date: 07-01-2008	
The project start date has been corrected in the updated version 2 of the PDD and proof was sent to SGS along with CDM consideration evidence as well as other documentary evidence.						
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008	
Information Provided: Work order & revised PDD Information Verified: Work order & revised PDD					Verified Document Reference: Work order & revised PDD	
Reasoning for not acceptance or acceptance and close out: The revised PDD is mentioning the start date as 03-10-2006 and provided the work order copy for civil construction as proof of start date. This was accepted. NIR14 closed						

Date:	24/12/2007		Raised by:	Pankaj Mohan		
No.:	15	Type:	CAR	Issue:	Additionality	Ref.: B.4.4.
Lead Assessor Comment					Date: 24/12/2007	
Step 1 is not clear and additionality is not consistent with the identified potential realistic baseline scenarios mentioned in section B.4 of PDD.						
Project Participant Response:					Date: 07-01-2008	
The baseline has been clarified in the updated version 2 of the PDD: 'In view of the above, the only attractive alternatives to the Project Developer are to continue importing grid electricity or to build a coal fired captive power plant. Using grid electricity and generating captive power using coal is in compliance with Host Country regulation. Taking into account that the project developer has been importing power from the grid prior to the CDM project activity and for the reason to maintain conservativeness, option P6 (grid electricity) is taken as baseline for this project.'(page 17)						
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008	
Information Provided: Revised PDD Information Verified: Revised PDD					Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: Please clarify for Step 1 in additionality section B.5. CAR Open.						
Project Participant Response:					Date: 25-05-2008	

Step 1 of section B.5. of the updated version 3 of the PDD states: '….the baseline scenario is either the supply of electricity from the grid or the generation of electricity by a captive power plant using coal as a fuel. Therefore the three following alternatives to the project scenario are considered: Alternative 1. The proposed project activity not undertaken as a CDM project activity, and Alternative 2. On-site existing coal based captive power plant Alternative 3: Import of electricity from the grid' (page 19)	
Acceptance and Close out by Lead Assessor:	Date: 10/06/2008
Information Provided: Revised PDD Information Verified: Revised PDD	Verified Document Reference: Revised PDD
Reasoning for not acceptance or acceptance and close out: CAR15 closed based on revised PDD	

Date:	24/12/2007			Raised by:	Pankaj Mohan			
No.:	16	Type:	CAR	Issue:	Additionality	Ref.:	B.4.6.	
Lead Assessor Comment					Date: 24/12/2007			
Step3a & 3b barrier analysis is not transparently described the proofs for technological barrier, Common Practice barrier & other barriers needs to be provided by the PP. The documents / website mentioned in PDD Page 18 to 22 hard copies to be provided by the PP.								
Project Participant Response:					Date: 07-01-2008			
Step 3a & 3b is transparent in the updated version 2 of the PDD since all statements are referenced. It clearly structures the different technological challenges the project faces and mainly external evidence for each of the barriers claimed. Proof sent along with other documentary evidence to SGS								
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008			
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD		
Reasoning for not acceptance or acceptance and close out: The revised PDD is received and checked. Could you please clarify which page number of the documents are specific to this CAR reply. I am not able to find them. CAR Open								
Project Participant Response:					Date: 25-05-2008			
Updated in PDD version 3: a) Steelworld.com – Steal Research Papers: Coal : The most critical raw material for sponge iron making, http://www.steelworld.com/coalcri.htm, 30.08.2007, b) Steelworld.com – Steal Research Papers: Coal : The most critical raw material for sponge iron making, http://www.steelworld.com/coalcri.htm, 30.08.2007 c) Ministry of Coal, Government of India: The Expert Committee on Road Map for Coal Sector Reforms, New Delhi, December 2005, page 58 d) P.R.K. Raju: Sponge Iron Industry – An overview of problems and solutions; published in: Steelworld, July 2005;p. 20 ; http://www.steelworld.com/technology7.pdf, 30.08.2007 e) P.R.K. Raju: Sponge Iron Industry – An overview of problems and solutions; published in: Steelworld, July 2005;p. 20 ; http://www.steelworld.com/technology7.pdf; f) Joint Plant Commitee: "Survey of Indian Sponge Iron Industry 2005-06 – Highlights and findings, 2005-06", page 6								

g) http://www.rimbach.com/scripts/Article/PEN/Number.idc?Number=12: ('…The three most common problems with this solution are: 1. For effluent air streams with particulate or sticky matter entrained, the effluent clogs the heat exchanger requiring frequent cleanings which means down time and additional cost…') h) Patel M.R., Navin Nath - Improve Steam Turbine Efficiency, http://www.iffco.nic.in/applications/Brihaspat.nsf/6dca49b7264f71ce65256a81003ad1cb/fddd5567e90ccfbde52569160021d1c8/$FILE/turbine.pdf, 30.08.2007, page 3-6 i) P.R.K. Raju: Sponge Iron Industry – An overview of problems and solutions; published in: Steelworld, July 2005;page 20 ; http://www.steelworld.com/technology7.pdf, 30.08.2007 i) Ban on ore prices gain momentum; published in Steelworld, January 2006, page 8 http://www.steelworld.com/analysis0106.pdf k) http://www.rimbach.com/scripts/Article/PEN/Number.idc?Number=12: ('…The three most common problems with this solution are: 1. For effluent air streams with particulate or sticky matter entrained, the effluent clogs the heat exchanger requiring frequent cleanings which means down time and additional cost…')	
Acceptance and Close out by Lead Assessor:	Date: 10/06/2008
Information Provided: Revised PDD along with all the docs mentioned above Information Verified: Revised PDD and all the docs mentioned above	Verified Document Reference: Revised PDD and all the documents mentioned above.
Reasoning for not acceptance or acceptance and close out: CAR16 closed based on revised PDD and documentary evidences provided by PP and verified by validator.	

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	17	Type:	CAR	Issue:	Additionality	Ref.:	B.4.7.
Lead Assessor Comment					Date: 24/12/2007		
Step4 common practice is not transparently described. The documentary proof for the data mentioned in substep 4a needs to be provided by PP. sub step 4b is also not clear as this is not mentioning about the similar activities operating in the state of Gujarat							
Project Participant Response:					Date: 07-01-2008		
Step 4 is transparent in the updated version 2 of the PDD. It clearly structures the information from several external and professional studies from acknowledged institutions (Stanford University, CEA, JPC, Government of Gujarat) which consistently come to the same conclusion that WHR is not present in the state of Gujarat / is implemented as CDM projects. Step 4 b has been updated in version 2 of the PDD and now includes a discussion about other similar activities happening in the state of Gujarat.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD					Verified Document Reference: Revised PDD		
Reasoning for not acceptance or acceptance and close out: The revised PDD is received and checked. Could you please clarify which page number of the documents are specific to this CAR reply. I am not able to find them. CAR17 Open.							
Project Participant Response:					Date: 25-05-2008		

Updated in PDD version 3: a) CEA: Report on Tapping of Surplus Power from Captive Power Plants b) Joint Plant Commitee: "Survey of Indian Sponge Iron Industry 2005-06 – Highlights and findings, 2005-06", page 7 c) Joint Plant Commitee: "Survey of Indian Sponge Iron Industry 2005-06, 2005-06", page 38 d) Captive Power Plants: Case Study of Gujarat, India, p. 11, 13, 16, 23-31, e) Industries Commissionerate, Government of Gujarat: excel file provided to DOE f) Namely: Mono Steel India Ltd, Welspun India Ltd and SAL Steel Ltd.: Hardcopies already provided g) Kutch Iron and Steel Association: Hardcopies already provided	
Acceptance and Close out by Lead Assessor:	Date: 10/06/2008
Information Provided: Common practice documents Information Verified: All documentary evidences	Verified Document Reference: JPC report Captive Power Plants: Case Study of Gujarat Kutch Iron and Steel Association letter
Reasoning for not acceptance or acceptance and close out: CAR17 closed based on documentary evidences for common practice.	

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	18	Type:	CAR	Issue:	Baseline calculations	Ref.:	B.5.1
Lead Assessor Comment					Date: 24/12/2007		
The approved methodology ACM0012 version 1 EB32 has been applied correctly but the baseline calculations needs clarifications as the three years historic data is not available for the project activity. This was checked during site visit. Please clarify. Also pending CAR13							
Project Participant Response:					Date: 07-01-2008		
Awaiting EB clarification related to non availability of historic data							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: No information Information Verified: No information					Verified Document Reference: No information		
Reasoning for not acceptance or acceptance and close out: Awaiting EB clarification Open CAR							
Project Participant Response:					Date: 25-05-2008		
As per clarification AM_CLA_0071: the most relevant manufacture's data for normal operating conditions. In case of new facilities or where data is not available the manufacture's data for normal operating conditions shall be used. Since the project is a new facility and data for three years prior to the project implementation is not available the approach for new facilities is used. Manufacturer/ technical consultant statement provided to DOE by email on 20.05.2008, file name is 'normal operating conditions'							
Acceptance and Close out by Lead Assessor:					Date: 10/06/2008		
Information Provided: Revised PDD and Manufacturer/ technical consultant statement along with AM_CLA_0071 Information Verified: Revised PDD and Manufacturer/ technical consultant statement along with AM_CLA_0071					Verified Document Reference: Revised PDD Manufacturer/ technical consultant statement AM_CLA_0071		

Reasoning for not acceptance or acceptance and close out: CAR18 closed based on UNFCCC clarification, Revised PDD and Manufacturer/ technical consultant statement.

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	19	Type:	NIR	Issue:		Ref.:	B.5.2.
Lead Assessor Comment					Date: 24/12/2007		
The approved methodology ACM0012 version 1 EB32 has been applied correctly but the formulas mentioned on page 29 of PDD but no calculation is shown to be reproduced in the transparent manner.							
Project Participant Response:					Date: 07-01-2008		
Since formulas as well as data used to estimate emission reductions and are provided in section B 6-1, B 6-2, B 7-1 and Annex 3, no additional calculations are required. Based on formulas and data provided in the PDD, the ER estimation can be reproduced transparently.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: The sections B.6.1, B.6.2, B.7.1 and Annex 3 were checked and found to be in order. Hence NIR19 could be closed. NIR19 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	20	Type:	CAR	Issue:	Leakage	Ref.:	B.5.3.
Lead Assessor Comment					Date: 24/12/2007		
Section B.6.1 of PDD is not mentioning anything on leakage. There is no calculation as well.							
Project Participant Response:					Date: 07-01-2008		
There is no leakage applicable under ACM12 (page 20), therefore, leakage has not been discussed in the PDD.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: ACM0012 version 1 Information Verified: ACM0012 version 1						Verified Document Reference: ACM0012 version 1	
Reasoning for not acceptance or acceptance and close out: As per methodology ACM0012 version 1 page 20 there is no leakage applicable. This was checked and found to be in order. [Acceptance and close out] OK CAR20 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	21	Type:	CAR	Issue:	Emission reduction	Ref.:	B.5.6.
Lead Assessor Comment					Date: 24/12/2007		
The Excel sheet for emission reduction to be provided along with the uncertainty calculations.							
Project Participant Response:					Date: 07-01-2008		
The calculation sheet for the ER PDD estimates will be provided. Please note that ACM12 doesn't require any uncertainty calculation							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Emission reduction calculation sheet Information Verified: Emission reduction calculation sheet						Verified Document Reference: Emission reduction calculation sheet	
Reasoning for not acceptance or acceptance and close out: ER sheet received but pending baseline capping. CAR open.							
Project Participant Response:					Date: 25-05-2008		

ER spreadsheet sent by email on 20.05.2008, file name is 'CER calculation_SGS_v6'	
Acceptance and Close out by Lead Assessor:	Date: 10/06/2008
Information Provided: Emission reduction calculation sheet Information Verified: Emission reduction calculation sheet	Verified Document Reference: Emission reduction calculation sheet
Reasoning for not acceptance or acceptance and close out: CAR21 closed based on Emission reduction calculation sheet	

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	22	Type:	CAR	Issue:	Parameter available at Validation	Ref.:	B.6.1.
Lead Assessor Comment					Date: 24/12/2007		
The data provided in section B.6.2 of PDD is not as per methodology for Q BL Product, Qwg Product, EFCO2 EL y & QWG,BL. The Plant efficiency needs to be substantiated with documentary evidences.							
Project Participant Response:					Date: 07-01-2008		
EFCO2 EL y and plant efficiency are not applicable in the updated version 2 of the PDD (as a different baseline is used).							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: No information Information Verified: No information						Verified Document Reference: No information	
Reasoning for not acceptance or acceptance and close out: Pending clarification CAR open							
Project Participant Response:					Date: 25-05-2008		
Q BL Product, Q wg Product, Q WG,BL established according to clarification AM_CLA_0071							
Acceptance and Close out by Lead Assessor:					Date: 10/06/2008		
Information Provided: Q BL Product, Q wg Product, Q WG,BL established according to clarification AM_CLA_0071 Information Verified: Q BL Product, Q wg Product, Q WG,BL established according to clarification AM_CLA_0071						Verified Document Reference: Revised PDD, AM_CLA_0071	
Reasoning for not acceptance or acceptance and close out: CAR22 closed based on AM_CLA_0071							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	23	Type:	CAR	Issue:	PDD accordance with guideline	Ref.:	B.7.2.
Lead Assessor Comment					Date: 24/12/2007		
The PDD is not mentioning the emission reduction calculations in section 6.3 transparently.							
Project Participant Response:					Date: 07-01-2008		
Formulas as well as data used to estimate emission reductions are provided in section B 6-1, B 6-2, B 7-1 and Annex 3; no additional calculations are required. On the basis of the formulas and data provided in the PDD, the ER estimation can be reproduced transparently.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: The sections B.6.1, B.6.2, B.7.1 and Annex 3 were checked and found to be in order. CAR23 closed.							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	24	Type:	NIR	Issue:	PDD accordance with guideline	Ref.:	B.8.2.
Lead Assessor Comment					Date: 24/12/2007		
The table needs to be corrected as Baseline emissions need to be checked further. Pending CARs / NIRs							
Project Participant Response:					Date: 07-01-2008		
ER tables finalised after baseline clarification.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: No information Information Verified: No information					Verified Document Reference: No information		
Reasoning for not acceptance or acceptance and close out: Pending clarification NIR open							
Project Participant Response:					Date: 25-05-2008		
Baseline emissions updated according to clarification AM_CLA_0071							
Acceptance and Close out by Lead Assessor:					Date: 10/06/2008		
Information Provided: Revised baseline calculation sheet based on AM_CLA_0071 Information Verified: Baseline calculation based on AM_CLA_0071					Verified Document Reference: Revised baseline calculation sheet and AM_CLA_0071		
Reasoning for not acceptance or acceptance and close out: NIR24 closed based on revised baseline calculation.							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	25	Type:	NIR	Issue:	Monitoring Parameters	Ref.:	B.10.3.
Lead Assessor Comment					Date: 24/12/2007		
The waste gas monitoring required for the project activity needs to be carried out which is not installed at present. Please justify. Rest of the parameters are in accordance.							
Project Participant Response:					Date: 07-01-2008		
Flow meter for Q WG, y measurement is currently under installation							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD					Verified Document Reference: Revised PDD		
Reasoning for not acceptance or acceptance and close out: Flow meter will be installed as told during site visit. This will be checked during verification. NIR25 closed.							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	26	Type:	NIR	Issue:	Monitoring Equipment	Ref.:	B.10.5.
Lead Assessor Comment					Date: 24/12/2007		
The project is a future activity and presently in construction stage. The meters mentioned in parameters to be measured will be installed. Documentary evidence needs to be provided.							
Project Participant Response:					Date: 07-01-2008		
Meter used to establish ER's are currently being installed, evidence for installation can be checked during verification; Q wg y meter specs provided							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: No information provided Information Verified: No information provided					Verified Document Reference: No information provided		
Reasoning for not acceptance or acceptance and close out: Please provide documentary evidence for validating that this will be installed. NIR Open							

Project Participant Response:	Date: 20-05-2008
PO copies provided	
Acceptance and Close out by Lead Assessor:	Date:
Information Provided: PO copies provided Information Verified: PO copies	Verified Document Reference: PO copies
Reasoning for not acceptance or acceptance and close out: NIR26 closed based on PO copies.	

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	27	Type:	NIR	Issue:	PDD accordance with guideline	Ref.:	B.11.2
Lead Assessor Comment					Date: 24/12/2007		
Data uncertainty is not mentioned in section B.7.1 of PDD							
Project Participant Response:					Date: 07-01-2008		
Data will be measured with suitable meters which are calibrated according to manufacturer specification							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD					Verified Document Reference: Revised PDD		
Reasoning for not acceptance or acceptance and close out: Procedures will be developed. Revised PDD does not mention about the procedures. Open							
Project Participant Response:					Date: 25-05-2008		
The revised PDD mentions that equipment maintenance and calibration procedures will be developed (page 38/39 and annex 4). Since the equipment is not available yet, it is not possible to determine final procedures, calibration frequency and an uncertainty range of the equipment.							
Acceptance and Close out by Lead Assessor:					Date: 10/06/2008		
Information Provided: Revised PDD Information Verified: Revised PDD					Verified Document Reference: Revised PDD		
Reasoning for not acceptance or acceptance and close out: NIR27 closed after verifying the revised PDD.							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	28	Type:	NIR	Issue:	QA/QC procedures	Ref.:	B.11.3.
Lead Assessor Comment					Date: 24/12/2007		
QA/QC procedures are not sufficiently described for ensuring high quality data.							
Project Participant Response:					Date: 07-01-2008		
The updated version 2 of the PDD contains a schematic diagram of the proposed monitoring organisation as well as draft roles and responsibilities of the monitoring staff. Procedures are currently under development.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD					Verified Document Reference: Revised PDD		
Reasoning for not acceptance or acceptance and close out: This is the future activity so the PDD provided was checked and found that the PDD is mentioning the roles and responsibilities of monitoring staff. NIR28 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	29	Type:	NIR	Issue:	Authority and responsibility	Ref.:	B.12.2.
Lead Assessor Comment					Date: 24/12/2007		
The authority and responsibility for registration and reporting is not mentioned in PDD							
Project Participant Response:					Date: 07-01-2008		
The updated version 2 of the PDD contains a schematic diagram of the proposed monitoring organisation as well as draft roles and responsibilities of the monitoring staff.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: Revised PDD is mentioning the roles and responsibilities of the staff. NIR29 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	30	Type:	NIR	Issue:	PDD accordance with guidlines	Ref.:	B.13.1 to B.13.9
Lead Assessor Comment					Date: 24/12/2007		
1. The PDD is not addressing the unique feature of CDM project activity. 2. It is also not mentioning the measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality. 3. Monitoring plan does not provide any information on monitoring equipment and respective positioning in order to safeguard a proper installation 4. This is mentioned in responsibilities in Annex 4 of PDD but there is no procedure for the calibration. 5. There is no procedure identified for maintenance of monitoring equipment. 6. Day to day record handling is not mentioned in PDD Annex 4. 7. procedures are not identified to deal with possible data adjustments and missing data. 8. There is no internal audit procedure mentioned in PDD annex 4. 9. There is no procedures identified for project performance reviews before data is submitted for verification, internally or externally.							
Project Participant Response:					Date: 07-01-2008		
The equipment and method for measuring each parameter is detailed in section B.7.1 of the PDD. As the project activity is not yet fully implemented the site is still in the process of installing measurement equipment as well as developing procedures. The monitoring plan has been updated in Version 2 of the PDD to include all procedures as outlined above.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: The revised PDD is mentioning the monitoring plan which includes all the procedures. NIR30 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	31	Type:	NIR	Issue:	Start date	Ref.:	C.1.1.
Lead Assessor Comment					Date: 24/12/2007		
Section C.1.1 of PDD mentions 16th May 2006 as start date. Please justify with documentary evidences. Operational lifetime is not mentioned clearly.							
Project Participant Response:					Date: 07-01-2008		
The project start date has been corrected in the updated version 2 of the PDD and evidence was sent to SGS							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		

Information Provided: revised PDD Information Verified: revised PDD	Verified Document Reference: revised PDD
Reasoning for not acceptance or acceptance and close out: The revised PDD is mentioning the start date as 03-10-2006 with the evidence. This was checked and found to be correct. NIR31 closed	

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	32	Type:	NIR	Issue:	Crediting period	Ref.:	C.1.2.
Lead Assessor Comment					Date: 24/12/2007		
PDD mentions fixed crediting period of 10 years but the emission reductions have been calculated for 7 years. Please clarify							
Project Participant Response:					Date: 07-01-2008		
This has been corrected in the updated version 2 of the PDD							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: The revised PDD is mentioning the ER for 10 years and mentions fixed crediting period of 10 years. NIR32 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	33	Type:	NIR	Issue:	Environmental impact analysis	Ref.:	D.1.2.
Lead Assessor Comment					Date: 24/12/2007		
Environmental impact analysis is not sufficiently described in PDD							
Project Participant Response:					Date: 07-01-2008		
The updated version 2 of the PDD includes a more detailed description of environmental impacts							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Revised PDD Information Verified: Revised PDD						Verified Document Reference: Revised PDD	
Reasoning for not acceptance or acceptance and close out: Environmental impacts are mentioned more transparently. This was checked with consent to establish as well. NIR33 closed							

Date:	24/12/2007			Raised by:	Pankaj Mohan		
No.:	34	Type:	NIR	Issue:	Stake holder consultation	Ref.:	E.1.1 to E.1.3
Lead Assessor Comment					Date: 24/12/2007		
Documentary evidences for stake holder consultation, Minutes of meeting, media used to invite comments needs to be provided by PP							
Project Participant Response:					Date: 07-01-2008		
Documentary evidence about the stakeholder consultation process, invitations, comments and replies to comments have been handed over to SGS during the validation site visit.							
Acceptance and Close out by Lead Assessor:					Date: 15-02-2008		
Information Provided: Proof for local stake holder consultation. Information Verified: Proof for local stake holder consultation.						Verified Document Reference: Proof for local stake holder consultation.	

Reasoning for not acceptance or acceptance and close out: PP has provided the documentary evidences for local stake holder consultation. This was accepted after cross verifying with the local stake holders during the site visit. NIR34 closed.

A.4 Annex 4: Team Members Statements of Competency

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	☒
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 Marco van der Linden Date: 03-04-07