VALIDATION REPORT

Action Ispat & Power Limited

AIPL WHRB 1 & 2

SGS Climate Change Programme
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Project Title:	Organisational Unit:
AIPL WHRB 1& 2	SGS Climate Change Programme
Revision Number:	Client:
3	Action Ispat & Power Limited (AIPL)

Summary:

Action Ispat & Power Limited has commissioned SGS to perform the validation of the project: AIPL WHRB 1&2. 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 primary purpose of the proposed project is to recover the sensible heat content of the waste gases generated from DRI kilns using Waste Heat Recovery Boilers (WHRBs) to generate total 16 MW power. The generated power will meet the process electricity requirement of AIPL's steel plant, in the absence of the project activity; the equal amount of electricity would have procured from the carbon intensive grid system. The project activity involves the generation of electrical power through the installation of two numbers of waste heat recovery boilers of capacities 37.5 TPH & 38 TPH respectively, operating at 66 kg/cm2 and 485±5°C and two steam turbines. The estimated emission reductions are 882056 tCO2 for 10 years.

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 25 findings which include:

- 16 Corrective Action Requests;
- 09 New Information Requests; and

All findings have been closed out satisfactorily and if the project will be recommended to the EB with a request for registration.

Subject:		**Indexing Terms**
CDM validation		
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Abbreviations

ABC	After Burning Chamber
AFBC	Atmospheric Fluidized Bed Combustion
AIPL	Action Ispat & Power Pvt Limited
BOD	Biochemical Oxygen Demand
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CO_2	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
DRI	Direct Reduced Iron
EIA	Environment Impact Assessment
GHG	Green House Gas(es)
HRSG	Heat Recovery Steam Generator (WHRB)
HSD	High Speed Diesel
HT	High Tension
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
OSERC	Orissa State Electricity Regulatory Commission
OSPCB	Orissa State Pollution Control Board
PDD	Project Design Document
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention for Climate Change
WESCO	Western Electricity Supply Company Of Orissa Ltd.

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1. Introduction

1.1 Objective

Action Ispat & Power Limited has commissioned SGS to perform the validation of the project: "AIPL WHRB 1 & 2 " with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

1.2 Scope

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

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

1.3 GHG Project Description

The primary purpose of the proposed project is to recover the sensible heat content of the waste gases generated from DRI kilns using Waste Heat Recovery Boilers (WHRBs) to generate total 16 MW power. The generated power will meet the process electricity requirement of AIPL's steel plant, in the absence of the project activity; the equal amount of electricity would have procured from the carbon intensive grid system. The project activity involves the generation of electrical power through the installation of two numbers of waste heat recovery boilers of capacities 37.5 TPH & 38 TPH respectively, operating at 66 kg/cm^2 and 485±5°C and two steam turbines.

Baseline Scenario:

Under the baseline scenario, the DRI kiln waste gas would have been allowed to escape unutilized with a considerable amount of SPM load and the electricity demand of the plant would have been met from the Eastern regional grid which is predominantly generated from thermal (fossil fuel based) power plants.

With Project Scenario:

The project activity uses heat content of the DRI kiln waste gas as fuel for generation of power, which in turn contributes to conservation of fossil fuel, a non-renewable natural resource and also reduces GHG emissions.

Leakage:

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

Environmental & Social Impacts:

According to assessor, there is no negative environmental and social impact expected due to the project activity. This was checked during the site visit and also from the pollution control board consents.

1.4 The Names and Roles of the Validation Team Members

Name	*Role*	*Affiliate*
Pankaj Mohan	Lead Assessor	SGS India

2. Methodology

2.1 Review of CDM-PDD and Additional Documentation

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

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

2.2 Use of the Validation Protocol

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

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

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

Checklist Question	***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 2 to this report

2.3 Findings

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

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

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

is issued, where:

I. mistakes have been made with a direct influence on project results;

II. validation protocol requirements have not been met; or

III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

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

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

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

2.4 Internal Quality Control

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

3. Validation Findings

3.1 Participation Requirements

The host Party for this project is India. India has ratified the Kyoto protocol on 26th Aug 2002. A Letter of Approval from Host Country was missing so CAR01 was raised. A copy of the letter dated 30-07-2007; issued by the Indian DNA (reference number 4/7/2007 – CCC) has been provided by the client which was verified from the original copy. Hence CAR 01 was closed out.

No Annex I Party has been identified in the PDD and the same also has been verified by cross checking with the project proponent. It is observed that the CDM EB has agreed that the registration of a CDM project activity can take place without an Annex I Party being involved at the stage of registration although it should be noted that before CER can be transferred to an Annex I Party, a Letter of Approval will need to be submitted.

CAR2 was raised to get the modalities of communication. The PP provided the modalities of communication. The modalities of communication dated 30th October 2007 was received and checked. This was found to be appropriated and hence CAR2 was closed out.

3.2 Project Design

NIR3 was raised to get the emission reduction calculation sheet. The PP responded by providing the excel sheet. This was cross checked and found that it is not correct and there are errors in calculation formula and the values taken for the baseline emission is incorrect. The PP corrected the spreadsheet and provided it again which was rechecked and found that the calculations are now correct and as per methodology ACM0004 version 2. This was accepted and hence NIR3 was closed out.

NIR4 was raised to get the clarification on other fossil fuel usage in After Burning Chamber (ABC) which was not clearly mentioned in the PDD. The PP replied that there is no other fossil fuel usage in the after burning chamber and also mentioned this in the revised PDD. The revised PDD was checked and this was also checked during site visit that there is no other fossil fuel usage in after burning chamber. Hence this was accepted and NIR4 was closed out.

NIR5 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 from the purchase orders of the equipments. This was also checked by interviewing the management people during the site visit and it was also seen by the validator that only 8 MW is installed at present and other 8 MW is under construction. After getting the satisfactory replies to the queries this was accepted along with the letter and hence NIR5 was closed.

The PDD is not mentioning anything about the training and maintenance of the project activity hence CAR6 was raised. The PP replied by clarifying that senior and trained staff is recruited. This staff will provide the training to the new staff and also the on job training will also be provided by the equipment supplier during installation. The PP also provided the revised PDD mentioning the training & maintenance of the project activity. The PP also mentioned that a separate training register is already maintained at the site. The revised PDD received was checked and found to be in line with the query raised. This was also checked from the purchase orders of the equipments which mention that the supplier will provide the training during erection and commissioning of the project activity. This was also cross checked during the interview of operation personnel during the site visit. The training record was also cross checked which was maintained at site and found to be OK. The scanned copy of the same was also obtained. Hence this was accepted and CAR6 was closed out.

The PDD was not mentioning about the future training needs for the project activity. Hence CAR7 was raised. The PP told that the training schedule is provided in revised PDD and maintenance needs are taken care by the preventive maintenance of the system as well as essential spares are maintained at project site for immediate rectification of any problem. The revised PDD received was checked and found that it

mentions the training requirements. This was also cross checked during the site visit that the spares are kept on the site for the immediate replacement. This was accepted and hence CAR7 was closed out.

The PDD was not clearly mentioning the schedule for implementation and the reasons for delays were also not mentioned hence CAR8 was raised. The PP provided the justification that the project is implemented in phased manner first phase is already implemented and second phase will be implemented by September 2008. The revised PDD was also submitted by the PP. The PDD received was cross checked and found to be OK. The revised PDD is mentioning the implementation schedule and this was also checked during site visit and found that phase 1 of 8 MW is already implemented and running and phase 2 of 8 MW is under construction. Hence this was accepted and CAR8 was closed out.

CAR9 was raised to get the table of emission reductions in the PDD corrected. The PP responded by correcting the table in the revised PDD and this was cross checked and found to be correct and matching with the spreadsheet provided for the emission reduction calculations. Thus this was accepted and CAR9 was closed out.

NIR10 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 & financial institutions. The letter was checked by interviewing the personnel and the loan documents were also cross checked. There is no Annex 1 country involved at present. The justification was accepted and hence NIR10 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.

3.3 Baseline Selection and Additionality

The project is using baseline methodology ACM0004 version 2 dated 3rd March 2006. The project activity is using baseline as import of power from grid. The baseline selected is “import of power from eastern regional grid “ is the most economically attractive baseline and it is as per approved methodology ACM0004 which says that economically attractive baseline should be selected from all the alternatives.

The basis of the consideration of coal based captive power plant for the baseline scenario consideration was not clear, thus a CAR 11 was raised asking for the justification. The project proponent has identified two plausible alternatives for the baseline selection, such as, 1. Captive power plant with coal as fuel, 2. Power import from the grid. Among the identified baseline scenario options, the first option, i.e. coal based captive power generation was selected but as the PP was not able to prove this baseline so the PDD was revised and power import from the grid was selected as the most suitable and conservative baseline scenario for the project activity. The selection of grid electricity as the most plausible alternative to the project activity has been judged on the basis of initial investment cost, conservativeness and prevailing practice in the sponge iron sector of the Orissa State. The project proponent has configured the analysis of most plausible baseline alternative on the basis of the initial investment required for the project not based on the operation cost. During the project inception period, there were already existing sponge iron plants in the state which were operating through procurement of power from State Grid system. Thus, with reference to the prevailing practice the project proponent had highest level of confidence that the same would be applicable to AIPL project too. The prevailing practice of grid power procurement has been verified on the basis of Joint plant committee (JPC) report which clearly says that only 4 captive power plants are installed out of 33 surveyed in the region. The JPC report page number 38 shows this value. The assurance of power supply from the State Government as per the signed MoU with the project proponent and the sanction of minimum demand contract load of 2000 kVA from State Electricity Board as the reason behind the tendency and feasibility towards option of grid power at the baseline selection has also been cross checked and found satisfactory. The contract demand was later increased to 3000 kVA. The copy of agreement can be uploaded as proof of baseline selection. The copies of all the relevant documentary evidences have been obtained. More over that, keeping in view the CDM Modalities and Procedure the project proponent has settled for the baseline alternative which has comparatively lower carbon intensity, i.e. import from grid power rather than more carbon intensive options like other identified baseline options. All the documentary evidences were found

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satisfying along with the explanation from project proponent regarding conservative approach towards selection of power import from the grid as the most plausible baseline scenario for the project activity and Taking power from grid does not face any prohibitive barrier.

The project developer also provided all the reference with excel sheet to verify all data used for baseline emission reduction calculations. The information has been reviewed by the validator during the site visit and they were able to verify the data. Hence, the CAR 11 was closed out.

The additionality of the project is justified by using "Tool of demonstration and assessment of additionality" (version 4). It was applied the Investment analysis and Barrier analysis. In Investment analysis levelized cost comparison analysis is used along with the Project IRR comparison. The IRR calculations sheet along with the formula used and all the assumptions made were also checked from the documented evidences provided by the PP. The sensitivity analysis was also checked and the spreadsheet will be uploaded along with this report. The investment analysis, investment barrier and technological barrier proofs were also checked and found to be in order. These are explained below in closure of CAR15.

CAR15 was raised to get the justification on investment analysis, barrier analysis which is not transparently mentioned in PDD. The PDD mentioned that there are technological and financial risks. Evidences for the same were not provided. The PDD did not mention the barriers that prevent the implementation of the project activity. The PP replied by providing the revised PDD using the "Tool of demonstration and assessment of additionality" (version 4) and also revised the barrier analysis and provided evidences for the discussion. The barrier analysis was checked in the revised PDD and found that it is mentioned transparently now.

In investment analysis levelized cost and Project IRR comparison analysis were used. This is as per the Tool of demonstration and assessment of additionality version 4. The levelized cost of the coal based plant is Rs.1452.75 per MWh (Rs1.452 / kWh) where as the WHRB cost is Rs. 1832.55 per MWh (Rs. 1.832 /kWh). The project IRR of coal based power plant is 21.91 %. The project IRR of WHRB without CDM is 10.20 %. By comparing the levelized cost it can be seen that the cost of generation for coal based is less than the cost of generation for WHRB. The IRR calculated for the coal based power plant is higher than the project IRR of WHRB (without CDM) and it is more financially viable. The levelized cost analysis and the project IRR calculations provided were also checked and found to be in order. The levelized cost and project IRR calculations sheet with the formula used and all the assumptions made were also checked from the documented evidences provided by the PP. The assumptions were checked from the loan documents for the interest rate, cost of machinery was checked from the purchase orders of boiler and turbo-generator, among others.The assumptions for the depreciation were checked from rates of depreciation under companies act schedule XIV document.

The sensitivity analysis was carried out increasing the plant load factor (from 66% to 71% and 76%) and its effect on the levelized cost and the project IRR calculations were also checked. The spreadsheets with sensitivity analysis will be uploaded with this report as proof of additionality. It was confirmed on-site that the levelized cost and project IRR calculations are also certified by the Chartered Accountant (CA). The CA letter dated 18th January 2008 will be attached to this report.

The document provided by PP to support the investment barrier was checked. The State Bank of Bikaner and Jaipur Loan rejection letter dated 15-04-2005 was verified. It mentioned that "Kindly explore the possibility for seeking The CDM support for your project which will certainly help you to reduce the risk of your WHRB power project". This document will also be uploaded as attachment to this report.

The Joint Plant Committee report (JPC) "Survey of Indian Sponge Iron Industry 2005-06" was provided to support the technological barrier discussion. The JPC report page number 29 table7 clearly shows that in Orissa only 2 plants have either captive or leased iron ore mines (raw material for kiln) out of 33 plants surveyed. This is very less and shows that there is scarcity of raw material. The JPC report page 39 table 17 shows that Orissa face a constraint in Raw material in 14 units out of 33 surveyed, power crisis in 6 units out of 33 surveyed, finance in 1 unit, & labour in 3 units respectively. The barriers associated with operation of kiln are affecting the project activity operation. The document was checked during site visit. The JPC report Page 29 and page 39 will be uploaded as proof of technological barrier. This was accepted and hence CAR15 was closed out.

The project proponent has applied the "Tool for the demonstration and assessment of additionality", version 02, to establish project additionality. This was not the correct version so CAR13 was raised. The PP responded by revising the PDD and using the two tools i.e. combined tool version 2.1 to demonstrate the baseline and tool for the demonstration and assessment of additionality version 04 for demonstrating the additionality. This was cross checked from the revised PDD and found that the revised PDD is using version 4 of Tool for the demonstration and assessment of additionality and combined tool version 2.1 for selecting the baseline. The Tool of additionality version 4 allows the use of combined tool for baseline selection. This was checked from the Tool of additionality version 4. This was accepted and hence CAR13 was closed out.

NIR14 was raised to get the justification on start date of project activity. The PP responded by providing the proof of the start date of project activity. The board resolution dated 15-11-2004 provided by the project proponent was checked along with the board minutes and agenda of board meeting was also checked and obtained the copy of the same. The certified true copy was obtained. The management personnel (Director) was interviewed for the board minutes and resolution during the site visit. During the interview the Director clarified that the methodology for the WHRB was approved by CDM EB on 08/07/2005 as ACM0004 version 1. This was checked from UNFCCC websites by the validator. The PP also provided the permission to establish dated 07/10/2005 vide letter number 30852 by Orissa state pollution control board which is necessary to establish any plant. The PP also submitted. The IEM No. 6068 /SIA/IMO/2006 dated 12/12/2006, from Secretariat of Industrial Approvals, Government of India for 16 MW WHRB based power generation. These two necessary host country institutional legal requirements are essential to be met before applying for Letter of approval from the Indian DNA. The documents were checked and found that due to the legal delays the project got delayed. This was accepted after getting the satisfactory replies. Serious CDM consideration was observed by the validator along with the reasons for the delay. Hence NIR14 was closed out.

Chronological History for the Project activity

1.	Minutes of Meeting held with Mr. M.L. Pareek (an Independent consultant) regarding CDM consideration	01/11/2004
2.	Letter from Mr. M.L. Pareek to Mr. Naresh Agrawal- CDM consideration	03/11/2004
3.	Letter from Mr. Naresh Agrawal to Mr. M.L. Pareek- regarding CDM consideration	05/11/2004
4.	Letter from Cethar Vessel(Boiler Manufacturer) suggesting CDM support to set up WHRB	12/11/2004
5.	CDM Consideration – Board Minutes	15/11/2004
6.	MOU with Govt. of Orissa – for installing captive power plant & Steel plant.	27/11/2004
7.	Appointment of Consultant ITFC	10/12/2004
8.	Local Panchayat NOC applied on – Requirement for local stakeholder & DNA Approval	15/01/2005
9.	"Gram Sabha" meeting held on Marakota for discussion for providing NOC.- Requirement for stake holder.	08/02/2005
10	NOC issued on – Local stake holder requirement & DNA Approval	07/03/2005
11	LOI for WHRB Project activity	24/03/2005
12	Purchase order for turbine Project activity	16/05/2005
13	Consent to establishment 1x350 TPD and 8 MW power project received on -	07/10/2005
14	IEM thermal power	26/10/2005
15	Letter from ITFC ltd asking for the legal clearance for the remaining capacity of WHRB	02/11/2005
16	Letter from ITFC ltd expressing their inability to provide services due to personal problems	20/01/2006

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17	Other consultant- PWC	18/04/2006
18	Other consultant – Manglam Carbon Assests Pvt. Ltd	03/05/2006
19	Other consultant – Emergent Ventures India Pvt Ltd	22/05/2006
20	Restoration of the project services by ITFC ltd	10/07/2006
21	Preparation of draft PDD	25/08/2006
22	First 8 MW WHRB starting date i.e. operation started on	27/11/2006
23	IEM for 16 MW non conventional energy	12/12/2006
24	Offer for validation from SGS	27/12/2006
25	Appointment of Validator	25/01/2007
26	Letter from DNA for requiring the proof for Serious CDM consideration, and legal permissions	16/03/2007
27	Webhosting Of PDD For Validation	30/03/2007 - 28/04/2007
28	Submission of the Additional documents to DNA regarding the serious CDM consideration of the project activity	25/04/2007
29	Submission of the Additional documents to DNA regarding the additionality of the project activity	25/05/2007
30	HCA received from DNA	30/07/2007

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From the above chronology it was concluded that the total project was conceived in November 2004 and serious CDM consideration was observed at the time of investment decision. The letter dated 16-03-2007 from Indian DNA also mentions that proof (Board Resolution) to the effect that CDM was taken into consideration at the time of inception of the project. This shows that even DNA has taken the note of this that the CDM was considered in November 2004 and after going through these documents dated 25/04/2007 and 25/05/2007 submitted by PP. The host country approval was issued on 30-07-2007. These were checked by DOE and accepted by the validator.

NIR16 was raised to get the clarification on common practice analysis. The project proponent provided the joint plant committee report (JPC) report and UNFCCC website as proof and also mentioned the projects gone or going for CDM in revised PDD. The revised PDD along with JPC report page number 38 which shows that only 4 plants have captive power plant (CPP) out of 33 surveyed units. The UNFCCC website was also checked and found that all the plants installing the WHRB in the region are on the basis of CDM. The revised PDD mentions the projects already registered and in process of registration in appendix III. This was accepted and hence NIR16 was closed out.

3.4 Application of Baseline Methodology and Calculation of Emission Factors

The baseline methodology applied for the project activity is ACM0004 version 2. The methodology is applicable and checked against the applicability criteria of the methodology which states that "The methodology applies to electricity generation project activities that displaces electricity generation with fossil fuels in the electricity grid or displaces captive electricity generation from fossil fuels". The methodology also states that it covers both existing and new facilities. The project activity is a new facility so the methodology is applicable as mentioned in ACM0004 version 2, dated 3rd March 2006.

The project activity is using eastern regional grid emission factor as baseline emission factor. This is taken from CEA version 3 published on CEA website

(http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm).

The value applied is 1.01 tCO2 / MWh. This was checked from the website and found to be matching with the value used in the PDD hence this was accepted. The EF grid provided by CEA follows the ACM0002 version 7.

NIR17 was raised for getting the clarification on uncertainties in emission estimation. The project proponent replied by providing the justification that the emission estimation is calculated on the basis of nameplate data and the value is coming in DCS. Hence the uncertainties are taken care of for estimation. During the crediting period actual measurements will be taken and the calculation will be done on the actual measurements. This was accepted after checking the emission estimation excel sheet and going through the project implementation during the site visit. Hence NIR17 was closed out.

CAR18 was raised as the PDD is not mentioning the monitored and not monitored data correctly. The project participant provided the revised PDD mentioning the data need to be monitored and need not be monitored correctly which was checked and found to be correct. Hence CAR18 was closed out.

3.5 Application of Monitoring methodology and Monitoring Plan

The monitoring methodology applied for the project activity is ACM0004 version 2. The methodology is applicable and checked against the applicability criteria of the methodology which states that "The methodology applies to electricity generation project activities that displaces electricity generation with fossil fuels in the electricity grid or displaces captive electricity generation from fossil fuels". The methodology also states that it covers both existing and new facilities. The project activity is a new facility so the methodology is applicable as mentioned in ACM0004 version 2, 3rd March 2006.

CAR19 was raised to as formula mentioned in the PDD for the project emission calculation was not correct and did not comply with monitoring methodology ACM0004 version 2. The PP replied by providing the revised PDD by correcting the formula as per ACM0004 version 2. The revised PDD was cross checked and found that the project emissions are now calculated as per the methodology. This was accepted and hence CAR19 was closed out.

CAR20 was raised as uncertainty of each parameter is not mentioned in the PDD. The PP replied by revising the PDD and mentioning the uncertainty of each parameter in section B.7.1. The revised PDD was checked and found that it is mentioning the uncertainty of each parameter in section B.7.1. This was accepted and hence CAR20 was closed out.

CAR21 was raised as PDD was not mentioning the QA/QC procedures for the parameters to be monitored. The PP replied by providing the revised PDD mentioning the QA / QC procedures for each parameter. This was checked and found that the QA/ QC procedures are mentioned and this will be taken care by internal auditing as mentioned in the PDD and checked during the site visit and by interviewing the management personal. Hence this was accepted and hence CAR21 was closed out.

CAR22 was mentioning the Annex 3 incorrectly for the baseline emission factor data. The PP replied by providing the revised PDD mentioning the baseline emission factor data correctly and also mentioned the source of data. The revised PDD received was checked for Annex 3 and baseline data and found that it is being taken from CEA version 3 data published on CEA website and the link mentioned

(http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm)

is showing the data as mentioned in the PDD. Hence CAR22 was closed out.

3.6 Choice of the Crediting Period

The start date of crediting period was mentioned as 27-11-2006 and fixed crediting period of 10 years is mentioned in PDD which is wrongly mentioned hence CAR23 was raised. The PP replied by providing the revised PDD after changing the start date of crediting period. The PP was also questioned for start date of crediting period i.e. 27-11-2006 during the site visit for this which he told that it was a typo error it should have been written 27-11-2007. The revised PDD version 6 dated 26/02/2008 received was checked and found that the PDD is mentioning the start date of crediting period as 01/04/2008 or date of registration which ever is later. This was accepted and hence CAR23 was closed out.

3.7 Environmental Impacts

The project participant was mentioning the environmental impacts of the project activity transparently in the PDD. There is no negative environmental effect seen during the site visit. This was checked from the consent to establish and operate from state pollution control board.

NIR24 was raised to get the clarification on EIA is not required as per the host country legislation. The PP responded by providing the EIA notification from Ministry of Environment and Forest, Government of India. This was checked and found that the project cost is less than 100 crores so EIA is not required to be carried out for the project activity. Hence NIR24 was closed out.

3.8 Local Stakeholder Comments

The PDD was not mentioning the media used to invite local stake holder comments, summary and due account of stake holder comments was also not mentioned clearly so NIR25 was raised. The project proponent responded by mentioning that the local stake holder comments were invited through the newspaper advertisement in a local daily and the summary is also mentioned transparently in the revised PDD along with due account of comments received. The newspaper advertisement dated 05-04-2007 in The New Indian Express paper was seen and copy of same was also obtained. The revised PDD dated 30-11-2007 was also received and checked that summary and due account of comments received is mentioned transparently. This was also checked during the stake holder meeting during the site visit. No negative comments received. Hence this was accepted and NIR25 was closed out.

4. Comments by Parties, Stakeholders and NGOs

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

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

The Project Design Document for this project was made available on the SGS website http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=242 and was open for comments from 30-03-2007 until 28-04-2007. Comments were invited through the UNFCCC CDM homepage

4.2 Compilation of all Comments Received

No comment received

4.3 Explanation of how Comments Have Been Taken into Account

No comment received

5. Validation Opinion

SGS has performed a validation of the project: "AIPL WHRB 1 & 2" at Jharsuguda, Orissa, India by M/s Action Ispat & Power Limited. The Validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

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

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

By utilizing waste heat for generation of electricity, the project results in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change. A review of the investment analysis, investment barrier along with technological barriers demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. The project is yet to start its commercial operation and is likely to achieve the total estimated emission reductions of 882056 tCO_2e for the selected crediting period of 10 years.

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

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

6. List of Persons Interviewed

Date	***Name***	***Position***	***Short description of subject discussed***
27-06-2007	Mr. M L Pareek	Director	*CDM project discussion in general. CDM consideration questioned*
27-06-2007	Mr. Navneet Aggarwal	Director	*CDM project discussion in general. CDM consideration questioned*
27-06-2007	Mr. B K Bhutiani	President corporate Liaison	*Overall responsibility of the project so general discussion were done.*
27-06-2007	Mr. M R Parija	President Works	*Need of power plant was discussed*
27-06-2007	Mr. Rajesh Mishra	G M Power Plant	*Specification, monitoring, measurement, data recording, Project boundary discussion.*
27-06-2007	Mr. Gopal Bordia	consultant	*Baseline, Additionality, Monitoring Plan was discussed in detail.*

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 1 dated 03-02-2007

/2/ PDD version 2 dated 10-11-2007

/3/ PDD version 3 dated 30-11-2007

/4/ PDD version 4 dated 05-12-2007

/5/ PDD version 5 dated 09-02-2008

/6/ PDD version 6 dated 26-02-2008

/7/ Letter of Approval dated 30th July 2007

/8/ Modalities of communication dated 30th October 2007

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/ Board resolution dated 15-11-2004 as start date proof

/2/ Electricity bill as proof of baseline

/3/ Emission reduction calculation

/4/ Bank Loan rejection letter dated 15-04-2005 as proof of additionality

/5/ Consent to operate from pollution control board

/6/ Energy meter test certificate

/7/ Specifications of boiler & turbo-generator

/8/ Power supply agreement with the electricity board as proof of baseline selection

/9/ Stakeholder comments

/10/ The IEM No. 6068 /SIA/IMO/2006 dated 12/12/2006, from Secretariat of Industrial Approvals, Government of India .

/11/ Training register as proof of training provided for maintenance & operation

/12/ Purchase Orders as proof of investment and proof of training

/13/ Joint Plant Committee report as proof of technological barrier and common practice proof.

/14/ Levelized cost and Project IRR calculation sheets

/15/ Sensitivity analysis spread sheets

/16/ CA letter dated 18-01-2008 as proof of additionality

/17/ Permission to establish dated 07/10/2005 vide letter number 30852 by Orissa state pollution control board

/18/ Survey of The Indian Sponge Iron Industry - A Report 2005 – 2006 Joint plant Committee (JPC) constituted by Govt. of India.

/19/ Central Electricity Authority (CEA) Data version 3 from the CEA Website and following web link is mentioning the data as per ACM0002 version 7
http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm

/20/ Certified true copies of Notice of board meeting, CDM consideration resolution, minutes of Board meeting and Agenda.

A.1 Annex 1: Local Assessment Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Use of any Official Development Assistance (ODA)	SV	I/DR	The funding for the project is on term loan from Bank. No ODA is utilised	Y	Y
List of stakeholders consulted has to be checked	SV	I/DR	Reasonable as checked from the documents provided and interaction with the stakeholders during site visit.	Y	Y
Supporting documents for summary of comments provided. The project create any adverse environmental effects?	SV	I/DR	Reasonable as checked from the documents provided and interaction with the stakeholders during site visit. No negative environmental effect seen or reported during the site visit by the stakeholders.	Y	Y
Due Account for stakeholder comment taken	SV	I/DR	Reasonable as checked from the documents provided and interaction with the stakeholders during site visit. No negative comment reported or seen by the validator.	Y	Y
Project design and technical details	SV	SV	It was found that the installed turbine is of 8MW capacity. Another 8 MW is in construction. Total of 16MW will be installed as mentioned in PDD as well and checked during site visit.	Y	Y
Project Boundary & information provided in compliance with actual situation or planning?	SV	SV	The project boundary is in accordance as per PDD and the information provided in PDD is in compliance with actual situation and planning.	Y	Y
CDM Management structure	SV	I	The management structure is robust. It does ensure comprehensive QA/QC.	Y	Y
Monitoring parameters	SV	I/DR	It was found that the parameters to be monitored were in accordance to the monitoring methodology for stage 1 and stage 2 is under construction.	Y	Y

A.2 Annex 2: Validation Protocols

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

REQUIREMENT	REFERENCE	Comments	CONCLUSION
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 has ratified the Kyoto protocol and is allowed to participate.	Y
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	It will assist the parties included in Annex1 In this project No annex1 party is identified yet.	Y
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 (LoA) from Indian DNA is to be provided by the project proponent.	CAR1 Y CAR1 closed
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=242 Starting date and closing date 30-3-2007 to 28-04-2007 Number of comments received:0	Y

REQUIREMENT	REFERENCE	Comments	CONCLUSION
The project design document shall be in conformance with the UNFCCC CDM-PDD format	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	Yes the project correctly applies the most recent version of PDD template.	Y
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	MoC needs to be provided by the client.	CAR2 Y CAR2 closed
For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?		Not Applicable (NA) as this is not an 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 used is enabling to identify the unique CDM project activity. The title used is "AIPL WHRB 1 & 2"	Y	Y
A.1.2. Are there an indication of a revision number and the date of the revision?	PDD	DR	This is the first version of the PDD dated 3rd February 2007 and was web-hosted for international stake holder comments. Now version 6 dated 26-02-2008 is validated.	Y	Y
A.1.3. Is this in consistency with the time line of the project's history?	PDD	DR	Yes, it is consistent with the time line of the project history as it is an installed + future project.	Y	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
A.2. Description of the project activity					
A.2.1. Is the description delivering a transparent overview of the project activities?	PDD	DR	The PDD is providing the information on purpose of project activity, type of technology used and contribution of project activity to the sustainable development. The purpose of project activity is to provide better energy efficiency, achieve sustainable development, and to improve the working environment of the industry.. The technology used in the project activity is the generation of electricity using waste gas as the fuel.	Y	Y
A.2.2. Is all information provided in compliance with actual situation or planning?	PDD	DR	It is an installed + future project and it will be constructed in near future so the information provided according to the PDD is in compliance. The documents to be checked during site visit.	TBC	Y This was checked during site visit.
A.2.3. Is all information provided consistent with details provided in further chapters of the PDD?	PDD	DR	Pending CARs / NIRs	pending	Y
A.3. Project Participants					
A.3.1. Is the table required for the indication of project participants correctly applied?	PDD	DR	The table required for indication of project participant 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	All the information provided in table A.,3 of PDD is consistent with Annex 1 of PDD.	Y	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
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 information provided on the location of the project activity is clear and it is located at village Marakutra & Pandaripathar district Jharsuguda Orissa.	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	Yes the project participant possess ownership which allows the implementation of the project activity.	Y	Y
A.4.3. Is the category(ies) of the project activity correctly identified?	PDD	DR	The project correctly applies the category of the project activity as Scope 1 – Energy Industries (renewable / Non Renewable)	Y	Y
A.4.4. Does the project design engineering reflect current good practices?	PDD	DR	The project activity is using the environmentally safe technology and it reflects the 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 for the project activity is reducing the GHG emissions and this is consistent with the methodology applied and also with the sources included in the project boundary. NIR 3: The excel sheet for the GHG emission reduction needs to be provided by the project participant.	NIR3	NIR3 closed out Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
A.4.6. Is all information provided in compliance with actual situation or planning as available by the project participants?	PDD	DR	NIR 4: Information provided is not clear in the PDD. It is to be clarified whether any additional fuel is used / will be used in After Burning Chamber (ABC). If yes then project emission due to the additional fuel needs to be considered.	NIR4	Y NIR4 closed out
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 uses the technology in which waste head is used to generate electricity and provide better performance than the commonly used technologies which are of similar nature.	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 is not likely to be substituted by the project participant by more efficient technology. NIR 5: Proof from the project participant needs to be provided.	NIR5	Y NIR5 closed out
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	CAR 6: The initial training requirement for operation and maintenance is not mentioned in the PDD.	CAR6	Y CAR6 closed out
A.4.10. Does the project make provisions for meeting training and maintenance needs?	PDD	DR	CAR 7: Any provision for meeting training and maintenance needs is not mentioned in PDD	CAR7	Y CAR7 closed out
A.4.11. Is a schedule available on the implementation of the project and are there any risks for delays?	PDD	DR	CAR8: Implementation schedule is mentioned, but it is not clear at all. There is no risk or reasons for delays are mentioned	CAR8	Y CAR8 closed out

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
A.4.12. Is the table required for the indication of projected emission reductions correctly applied?	PDD	DR	CAR9: The table required for the indication of projected emission reductions is not correctly applied as ER is not calculated correctly.	CAR9	Y CAR9 closed out
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	There is no public funding involved in the project activity. NIR10: Proof in this regard needs to be provided by the project participant.	NIR10	Y NIR10 closed out
A.5.2. Is all information provided consist with details provided by further chapters of the PDD (in particular annex 2)?	PDD	DR	Pending NIR10	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 diversion of official development assistance	PDD	DR	There is no ODA from Annex 1 country involved in this project.	Pending	Y
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	Baseline methodology used is ACM0004 Version 2 Dated 3rd March 2006. It is approved by the CDM methodology panel. CAR 11: The baseline selected for the project activity is not correct.	CAR11	Y CAR11 closed out

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.1.2. Is the baseline methodology the one deemed most applicable for this project?	PDD	DR	The methodology is applicable but pending CAR11	Pending	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	Choice of methodology is justified but pending CAR 11	Pending	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 gases related to project scenario & Leakage is clearly identified and as per methodology but the baseline selected is not correct so the baseline emission identified are questionable. Pending CAR11.	pending	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	Relevant grid is correctly identified in accordance with EB guidance	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	CAR 12: The project boundary is not mentioned in the PDD clearly.	CAR12	Y CAR12 closed out
B.3. Identification of the Baseline Scenario					

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
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 methodology and the discussion and determination of the chosen baseline transparent?	PDD	DR	Baseline scenario selected from the most plausible scenarios is neither correct and nor conservative. Pending CAR11	Pending	Y
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	The PDD considers all Plausible and credible baseline scenarios taking into account relevant national & sectoral policies. Pending CAR11	Pending	Y
B.3.3. Is the choice of the baseline compatible with the available data?	PDD	DR	Pending CAR11	Pending	Y
B.3.4. Is conservativeness addressed in the way of identifying the baseline?	PDD	DR	Pending CAR11	Pending	Y
B.3.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD	DR	Pending CAR11	Pending	Y
B.4. Additionality					

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
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	CAR13: The PDD does not mention the additionality according to the methodology and not following correct version of tools for demonstration of additionally.	CAR13	Y CAR13 closed out
B.4.2. In case of using the additionality tool: Are all steps followed in a transparent manner?	PDD	DR	The additionality tool used in this project activity is version 2 and not the latest version 3 as per EB29. Pending CAR13	Pending	Y
B.4.3. Is the discussion on additionality and the evidence provided consistent with the starting date of the project	PDD	DR	The starting date mentioned in the PDD is 15-11-2004. NIR 14: The evidence starting date to be provided by the project proponent along with the fact that the CDM was considered to go ahead with the project activity before or on the starting date of project activity. The project activity is the installed + future activity.	NIR14	Y NIR14 closed out
B.4.4. Is the discussion on additionality consistent with the identification all potential realistic and credible baseline scenarios	PDD	DR	The project scenario is not the likely baseline scenario as discussed in the PDD clearly as well. The discussion on additionality is not consistent with all the possible baseline scenarios. Pending CAR11 & CAR13	Pending	CAR 11 and CAR 13 closed out Y
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	The investment analysis is considered to prove the additionality for this project as per the PDD. Documentary evidences to be provided.	CAR15	Y CAR15 closed out

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
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	CAR 15: The barrier analysis shown is not transparent. The PDD mentions that the project activity will face Technological and financial risks as the cost of technology is high so financial risk are also there. The PDD does not mention the barriers that prevent the implementation of project activity and does not prevent the selected baseline scenario. The proof for the technological barrier needs to be provided.	CAR15	Y CAR15 closed out
B.4.7. Has it been shown that the project is not common practice?	PDD	DR	The project activity is not the common practice as discussed in PDD. NIR 16: Proof for the same needs to be provided by the project proponent.	NIR16	Y NIR16 closed out
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 project proponent has applied the baseline methodology correctly but the baseline selected is incorrect so the baseline emissions are also incorrect. The steps mentioned in the methodology are not followed correctly. The calculation needs to be checked in the excel sheet which needs to be provided by the project proponent. Pending NIR3	pending	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.5.2. Has the approved methodology been applied correctly for determining **project emissions**?	PDD	DR	The project proponent has applied the baseline methodology correctly to determine the project emissions. The steps and formulas mentioned in the methodology are followed correctly in the PDD. Pending NIR3	Pending	Y
B.5.3. Has the approved methodology been applied correctly for determining **leakage**?	PDD	DR	In this methodology leakage is not required to be accounted for so the leakage is taken as 0.	Y	Y
B.5.4. Where applicable, has the approved methodology been applied correctly for the **direct calculation of emission reductions**	PDD	DR	The excel calculation sheet needs to be provided by the project proponent to check for the calculations of emission reductions. Pending NIR3	Pending	Y
B.5.5. Have all the methodological choices been explained, have they been properly justified and are they correct	PDD	DR	The PDD explains all the methodological choices clearly. The steps and formulas mentioned in methodology are used correctly in the PDD. The PDD is using the plant data as mentioned in the PDD. Pending NIR3.	Pending	Y
B.5.6. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	PDD	DR	NIR 17: The uncertainties in the emission estimation are not mentioned in the PDD.	NIR17	Y NIR17 closed
B.6. Ex-ante data and parameters used					
B.6.1. Are the data provided in compliance with the methodology?	PDD	DR	The parameters /data mentioned in the PDD are not in accordance with the methodology as the baseline selected is incorrect. Pending CAR11	pending	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.6.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	PDD	DR	CAR 18: The data mentioned in the PDD that need not be monitored are from Plant and not correct. This cannot be traced back. The parameters that need to be monitored for the project activity are not mentioned correctly.	CAR18	Y CAR18 closed
B.6.3. Is the vintage of the baseline data correct?	PDD	DR	The data assumed in the PDD is not conservative for the data needs to be monitored. Plant data is used for data need not be monitored and available during validation. Needs to be checked during site visit. Pending CAR18	Pending	Y
B.7. Calculation of Emissions Reductions					
B.7.1. Has the approved methodology been applied correctly for determining **emission reductions**?	PDD	DR	The baseline selected is not correct and the excel sheet needs to be checked during site visit. Pending NIR3	Pending	Y
B.7.2. Are the emission reduction calculations documented in a complete and transparent manner?	PDD	DR	The PDD has provided the formulas and the calculations in a transparent manner. The calculations are incorrect as baseline selected is not correct and excel sheet needs to be checked. Pending NIR3	Pending	Y
B.7.3. Have conservative assumptions been used to calculate emission reductions?	PDD	DR	Pending NIR3	Pending	Y
B.7.4. Is the projection based on provable input parameter?	PDD	DR	Projections are not based on parameters which are conservative. Pending NIR3	Pending	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.7.5. Is the projection based on same procedures as used for later monitoring or acceptable alternative models?	PDD	DR	Later monitoring of parameters mentioned is not correct and excel sheet needs to be checked. Pending NIR3	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	The project will result in fewer GHG emissions than the baseline scenario. Pending NIR3 & CAR11	Pending	Y
B.8.2. Is the form/table required for the indication of projected emission reductions correctly applied?	PDD	DR	Yes the table is correctly applied.	Y	Y
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	The projection is not in line with the indicated crediting period as the baseline selected is incorrect and time schedule for project implementation is not mentioned. Pending NIR3 & CAR10	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 plan is mentioned section B.7.2.	Y	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
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 monitoring methodology is correctly applied in the PDD. Monitoring of parameters are mentioned in sections B.6.2 & B.7.1. The monitoring parameters are not correct. Pending CARs / NIRs	Pending	Y
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	The monitoring parameters mentioned in PDD will be collected and achieved for the emission reduction calculations as mentioned in Annex 4 but in section B.7.1 it is not mentioned at all. 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	The project GHG indicators are reasonable and according to approved methodology. Pending NIR3 & CAR10	pending	Y
B.10.3. Will it be possible to determine the specified project GHG indicators?	PDD	DR	The monitoring data mentioned in the PDD is Plant data and for the project related data at present it is assumed but actual data will be recorded as per the monitoring parameters which are not correctly mentioned. Pending CARs / NIRs.	Pending	Y
B.10.4. Will the indicators enable comparison of project data and performance over time?	PDD	DR	The project data indicators enable comparison of the performance of data over a time period as mentioned in Annex 4.	Y	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
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 information provided in the PDD for monitoring of the parameters is not sufficient to ensure the verification of the monitoring plan. Pending CARs / NIRs	pending	Y
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 data quality for the parameters that can be checked during validation is unpredictable as plant data is used. The parameters to be measured for project activity are also not mentioned correctly in section B.7.1. pending CARs / NIRs	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 of data will be done accurately with proper instrumentation as mentioned by the project proponent in the PDD but will be checked during verification.	Y	Y
B.10.8. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	PDD	DR	CAR 19: The PDD is not mentioning the correct formulas to determine project emissions which are in compliance with the monitoring methodology.	CAR19	Y CAR19 closed out
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	The selection of data undergoing quality control and quality assurance procedures is not complete in section B.6.2 & B.7.1. Pending CARs / NIRs	pending	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.11.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?	PDD	DR	CAR 20: Uncertainty of data is not mentioned under each parameter.	CAR20	Y CAR20 closed out
B.11.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	PDD	DR	CAR 21: QA / QC procedures are not mentioned.	CAR21	Y CAR21 closed out
B.11.4. Is it ensured that data will be bound to national or internal reference standards?	PDD	DR	The monitoring of data will be done by the instruments which will be traceable to national standards as mentioned in Annex 4.	Y	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	The data will be monitored as per the monitoring plan (Annex 4) and will be free from conflicts of interests which may result in overestimating emission reductions.	Y	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 clearly described in PDD section B.7.2. & Annex 4	Y	Y
B.12.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR	This is a installed + future project so all these are setup during the course of project registration as mentioned in the PDD.	Y	Y
B.12.3. Are procedures identified for training of monitoring personnel?	PDD	DR	Training needs and carrying out training programs is mentioned in PDD.	Y	Y

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	This is mentioned in Annex 4 of PDD.	Y	Y
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	This is mentioned in Annex 4 of PDD.	Y	Y
B.13.3. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	PDD	DR	This is mentioned in Annex 4 of PDD.	Y	Y
B.13.4. Are procedures identified for calibration of monitoring equipment?	PDD	DR	This is mentioned in Annex 4 of PDD.	Y	Y
B.13.5. Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	This is mentioned in Annex 4 of PDD.	Y	Y
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	This is mentioned in Annex 4 of PDD.	Y	Y

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
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	This is mentioned in Annex 4 of PDD.	Y	Y
B.13.8. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD	DR	This is mentioned in Annex 4 of PDD.	Y	Y
B.13.9. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD	DR	This is mentioned in Annex 4 of PDD.	Y	Y
Baseline details					
B.13.10. Is there any indication of a date when determine the baseline?	PDD	DR	The baseline was determined on 10-02-2007	Y	Y
B.13.11. Is this in consistency with the time line of the PDD history?	PDD	DR	Yes it is consistent with the PDD	Y	Y
B.13.12. Is all data required provided in a complete manner by annex 3 of the PDD?	PDD	DR	CAR 22: Annex 3 of PDD mentions the data wrongly as baseline is incorrect.	CAR22	Y CAR22 closed out
Duration of the Project / Crediting Period					

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.13.13. Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD	DR	The starting date of project activity is 15-11-2004. the operational lifetime is clearly defined as 15 years. Proof for starting date needs to be provided by the project proponent. Pending NIR14	Pending	Y
B.13.14. 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	CAR 23: The assumed crediting period is fixed for 10 years and expected start date of crediting period is 27-11-2006 which is incorrect as the starting date of crediting period should be from the date of registration as per EB guidelines.	CAR23	Y CAR23 closed out
B.13.15. Does the project's operational lifetime exceed the crediting period	PDD	DR	The operational lifetime 15 years exceeds the crediting period 10 years.	Y	Y
C. Environmental Impacts					
C.1.1. Does the project comply with environmental legislation in the host country?	PDD	DR	The project comply with the environment legislation of the host country.	Y	Y
C.1.2. Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	The environmental impacts of the project activity has been sufficiently described.	Y	Y
C.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 country legislation. NIR 24: Proof to be provided.	NIR24	Y NIR24 closed out

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
C.1.4. Will the project create any adverse environmental effects?	PDD	DR	There will be negligible adverse environmental effects as described in PDD and will be checked during site visit.	TBC	Y This was checked during site visit.
C.1.5. Are transboundary environmental impacts considered in the analysis?	PDD	DR	Yes.	Y	Y
C.1.6. Have identified environmental impacts been addressed in the project design?	PDD	DR	Yes	Y	Y
D. Stakeholder Comments					
D.1.1. Have relevant stakeholders been consulted?	PDD	DR	The relevant stakeholders have been consulted.	Y	Y
D.1.2. Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	NIR 25: The media used to invite comments from local stakeholder is not described by the project participant. The documentary evidence needs to be provided by the project proponent.	NIR25	Y NIR25 closed out
D.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	It is not required by law but conducted as per CDM requirements. MOM needs to be provided.	NIR25	Y NIR25 closed out
D.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?	PDD	DR	The stakeholder process described is not complete and transparent.	NIR25	Y NIR25 closed out

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
D.1.5. Is a summary of the stakeholder comments received provided?	PDD	DR	Summary of stakeholder consultation is not mentioned in PDD clearly.	NIR25	Y NIR25 closed out
D.1.6. Has due account been taken of any stakeholder comments received?	PDD	DR	The query answered during the stakeholder meeting is not described in PDD.	NIR25	Y NIR25 closed out

A.3 Annex 3: Findings Overview

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
1	CAR	Letter of Approval (LoA) needs to be provided by the client.	1.3
Date: 05-12-2007 [Comments] Host Country letter no 4/7/2007-CCC dated 30.07.2007 is obtained and provided, enclosed herewith.			
Date: 10-12-2007 [Pankaj Mohan] Letter of approval dated 30-07-2007 having reference number No. 4/7/2007 – CCC. This was verified with original one and same is attached with the report. [Acceptance and close out] OK CAR01 closed.			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
2	CAR	Modalities of communication (MoC) needs to be provided by the client	1.6
Date: 05-12-2007 [Comments] Modalities of Communication letter dated 30.10.2007 is enclosed herewith & Provided.			
Date: 10-12-2007 [Pankaj Mohan] Modalities of communication was provided. This was checked and accepted. [Acceptance and close out] OK CAR02 closed.			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
3	NIR	The excel sheet for the GHG emission reduction needs to be provided by the project participant.	A4.5
Date: 05-12-2007 GHG calculation Excel sheet based on the revised & conservative baseline taking Eastern regional grid is enclosed& provided herewith [Comments] Excel sheet Provided.			
Date: 10-12-2007 [Pankaj Mohan] The excel sheet provided was checked and found that it is OK and hence this was accepted. [Acceptance and close out] OK NIR3 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
4	NIR	Information provided is not clear in the PDD. It is to be clarified whether any additional fuel is used / will be used in ABC. If yes then project emission due to the additional fuel needs to be considered.	A4.6
Date: 05-12-2007 [Comments] No additional or any other fuel will be used in ABC, hence there is no need to consider Project emission due to additional fuel			
Date: 10-12-2007 [Pankaj Mohan] The additional fuel will not be used as mentioned by the project proponent and it was checked during site visit that there is no additional fuel is used in the project activity. Hence this was accepted. [Acceptance and close out] OK NIR04 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
5	NIR	The project technology is not likely to be substituted by the project participant by more efficient technology. Proof from the project participant needs to be provided.	A4.8

Date: 05-12-2007 [Comments] Undertaking in this regard is submitted by the project proponent that the project technology is not likely to be substituted by more efficient technology during the entire crediting period.
Date: 10-12-2007 [Pankaj Mohan] The project proponent provided the letter which states that the PP will not change the technology with the more efficient technology during the crediting period. This was also checked from the purchase order of the equipments and also by interviewing the PP during the site visit. Also the project activity is a new installation in the premises. Hence this was accepted. [Acceptance and close out] OK NIR05 closed.

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
6	CAR	The initial training requirement for operation and maintenance is not mentioned in the PDD.	A4.9
Date: 05-12-2007 [Comments] Senior & trained staffs are recruited in the plant who provide & will provide necessary on the job training to the fresh staff. In addition, Initial training on operation and maintenance will also be provided by the equipment manufacturer supplier relevant training, data recording will be done in a separate register maintained for training provided and to be provided.			
Date: 10-12-2007 [Pankaj Mohan] As the project activity is being installed at present and the purchase order clarifies that the training for the operation and maintenance will be provided by the manufacturer / supplier. This was accepted and will also be verified during verification as well. Hence this was accepted. [Acceptance and close out] OK CAR06 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
7	CAR	Any provision for meeting training and maintenance needs for future is not mentioned in PDD	A4.10
Date: 05-12-2007 [Comments] Training schedule is provided in revised PDD and maintenance needs are taken care by the preventive maintenance of the system as well as essential spares are maintained at project site for immediate rectification of any problem.			
Date: 10-12-2007 [Pankaj Mohan] The revised PDD received was checked and found that it is mentioning about the training schedule. Hence this was accepted. [Acceptance and close out] OK CAR07 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
8	CAR	Implementation schedule is mentioned, but it is not clear at all. There is no risk or reasons for delays are mentioned	A4.11
Date: 05-12-2007 [Comments] The project activity first phase is already implemented, and the second phase is likely to be completed by September 2008, accordingly expected CERs have been calculated.			
Date: 10-12-2007 [Pankaj Mohan] The revised PDD and calculation sheet is mentioning the phase wise implementation and also the calculations as per the plan. Hence this was accepted. [Acceptance and close out] OK CAR08 closed.			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
9	CAR	The table required for the indication of projected emission reductions is not correctly applied as ER is not calculated correctly.	A4.12

Date: 05-12-2007
[Comments]
We have revised the baseline scenario in accordance to the Combined Tool for Assessment of Baseline & demonstration of Additionality and in accordance to the Additionality Tool Version.4 and have selected the conservative baseline for lowest emission factor taking into consideration Eastern Regional Grid as baseline. Please refer to revised PDD, and emission reduction calculation is revised.

Date: 10-12-2007 [Pankaj Mohan]
The revised PDD and emission reduction calculation is checked and was found to be correct and hence CAR09 could be closed.
[Acceptance and close out] OK CAR09 closed

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
10	NIR	There is no public funding involved in the project activity. Proof in this regard needs to be provided by the project participant.	A5.1

Date: 05-12-2007
[Comments]
A declaration regarding this is provided and the loan documents were also provided.

Date: 10-12-2007 [Pankaj Mohan]
The PP provided the letter that there is no ODA involvement and at present there is no annex 1 party involved and also the loan documents were also checked so this was accepted and hence NIR10 could be closed.
[Acceptance and close out] OK NIR10 closed.

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
11	CAR	Baseline methodology used is ACM0004 Version 2 Dated 3rd March 2006. It is approved by the CDM methodology panel. The baseline selected for the project activity is not correct.	B1.1

Date: 05-12-2007
[Comments] We have revised the baseline scenario in accordance to the “Combined Tool for Assessment of Baseline & demonstration of Additionality” and in accordance to the Additionality Tool Version.4 and have selected the conservative baseline for lowest emission factor taking into consideration Eastern Regional Grid as baseline. Please refer to revised PDD, in which emission reduction calculation is revised. Baseline is changed and revised PDD is provided.

Date: 10-12-2007 [Pankaj Mohan]
The baseline selected by the project proponent was coal based but as the project proponent has got the grid connection and they are operating with grid electricity since its inception and the coal based power generation was only thought about but it has not been implemented at present and the PP also told that they were thinking of grid as baseline based on initial investment cost and also on the basis of conservativeness of emission factor. The proof provided by the PP was the power supply agreement with the Electricity board. The Revised PDD is providing the justification of baseline as well. This was also checked and hence accepted.
[Acceptance and close out] OK CAR11 closed.

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
12	CAR	The project boundary is not mentioned in the PDD clearly.	B2.3

Date: 05-12-2007
[Comments]
The project boundary is clearly defined including the source of flue gases i.e. ABC and the same is

provided in revised PDD.
Date: 10-12-2007 [Pankaj Mohan] The revised PDD provided was checked and found that it is correctly shown now in the PDD. Hence this was accepted and CAR12 could be closed out. [Acceptance and close out] OK CAR12 closed.

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
13	CAR	The PDD does not mention the additionality according to the methodology and not following Correct version of tools for demonstration of additionally.	B4.1
Date: 05-12-2007 [Comments] We have used the additionality tool version.4 and have carried out the investment analysis as per option II, in which we have preferred to compare the levelized unit cost of service which is most suitable financial indicator for a captive power plant project proponent and have come to conclusion that the cost of power from WHRB without CDM support is higher than Coal based captive power. In addition to this the project IRR also has been calculated assuming the best rate at which project proponent could have been possibly negotiated, to export the power to the Grid, and have come to conclusion that the WHRB power plant (without CDM support) IRR is less attractive than the Coal based power plant. The detailed calculations & outcome of the same is provided in the revised PDD.			
Date: 10-12-2007 [Pankaj Mohan] The project proponent provided the revised PDD mentioning the tool of additionality version 4 is being used now. This was accepted and hence CAR13 could be closed. [Acceptance and close out] OK CAR13 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
14	NIR	The starting date mentioned in the PDD is 15-11-2004. The evidence starting date to be provided by the project proponent along with the fact that the CDM was considered to go ahead with the project activity before or on the starting date of project activity.	B4.3
Date: 05-12-2007 [Comments] Extract of board meeting is provided in which the project was conceived due to CDM support and CDM was considered.			
Date: 10-12-2007 [Pankaj Mohan] The board meeting extract dated 15-11-2004 provided were checked and found that the CDM was seriously considered before going ahead with the project activity. The board minutes along with the Agenda and Notice for the board meeting was also checked. This was also verified that the project got delayed due to the legal requirement which needs to be fulfilled. It took two years for PP to get the Permission to establish from Orissa State Pollution control board and from Secretariat of Industrial Approvals, Government of India for 16 MW WHRB based power generation. The documents were checked. This was accepted at starting date of project activity and hence NIR14 could be closed out. [Acceptance and close out] OK NIR14 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
15	CAR	The barrier analysis shown is not transparent. The PDD mentions that the project activity will face Technological and financial risks as the cost of technology is high so financial risk are also there. The PDD does not mention the barriers that prevent the implementation of project activity and does not prevent the selected baseline scenario. The proof for the technological barrier needs to be provided.	B4.6
Date: 05-12-2007 [Comments] The Additionality tool version 4 requires first to carry out the Investment Analysis and then barrier analysis, whereas the “Combined tool for assessment of baseline & demonstration of additionality” requires first to carry out Barrier Analysis & then carry out the investment analysis. For the sake of better			

credibility we have adopted both the provisions under section B.5 & B.4 of the revised PDD, in which the technology barriers being faced by the project activity are transparently addressed. The proof for investment barrier and technological barrier was also provided to the DoE. Please refer to revised PDD, barriers analysis is revised as per latest tools of additionality.
Date: 10-12-2007 [Pankaj Mohan] The revised PDD received was checked and found to be using Combined tool for assessment of baseline & demonstration of additionality version 2.1 and Tool of demonstration of assessment of additionality version 4. Combined tool V2.1 was used to demonstrate baseline and Tool of demonstration of assessment of additionality version 4 is used to demonstrate additionality. The Investment barrier proof i.e. Loan rejection letter and JPC report provided for technological barrier was also checked and found to be OK. Hence CAR15 could be closed. [Acceptance and close out] OK CAR15 closed

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
16	NIR	The project activity is not the common practice as discussed in PDD. Proof for the same needs to be provided by the project proponent.	B4.7
Date: 05-12-2007 [Comments] Please refer to revised PDD, the project is not the common practice as there are no plant in the State of Orissa which have gone ahead with implementation of 16 MW WHRB power project without CDM consideration. Documentary evidences based on the JPC report & UNFCCC-CDM website is provided as Annexure to the revised PDD.			
Date: 10-12-2007 [Pankaj Mohan] The documentary evidence provided was the JPC report & UNFCCC website which was checked and accepted. [Acceptance and close out] OK NIR16 closed out			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
17	NIR	The uncertainties in the emission estimation are not mentioned in the PDD.	B5.6
Date: 05-12-2007 [Comments] There is not likely to be any uncertainty in emission reduction estimation, as the same is calculated on the basis of recorded data from DCS, hence the uncertainties is already taken care of. The emission reduction during the crediting period will be calculated based on actual measurement. The ex-ante baseline has already been considered on most conservative basis using official data source of CEA and adopting a conservative approach to select the lowest baseline emission option. The calculation sheet is provided with the revised PDD.			
Date: 10-12-2007 [Pankaj Mohan] The justification was accepted after checking the calculation sheet and the project implementation during the site visit. [Acceptance and close out] OK NIR17 closed.			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
18	CAR	The data mentioned in the PDD that need not be monitored are from Plant and not correct. This cannot be traced back. The parameters that needs to be monitored for the project activity are not mentioned correctly.	B6.2
Date: 05-12-2007 [Comments] All the data which are required to be monitored as per latest version of ACM0004 have been provided in the revised PDD. The data which need not to be monitored from plant are baseline data and accordingly the details about these data are provided in the revised PDD from official source of CEA. This point is taken care in revised PDD.			
Date: 10-12-2007 [Pankaj Mohan]			

The revised PDD provided was checked and found that the data need not be monitored is mentioned correctly and hence accepted. [Acceptance and close out] OK CAR18 closed.

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
19	CAR	The PDD is not mentioning the correct formulas to determine project emissions which are in compliance with the monitoring methodology.	B10.8
Date: 05-12-2007 [Comments] There is not going to be any emission from the project activity due to any additional firing of fossil fuel, since only the hot gases coming out of ABC will be used to generate power. The proportionate calorific value of Heat provided by the Hot Flue gases will be calculated as per the formulae provided in the methodology. The correct and applicable formulas have accordingly been provided in the revised PDD. This point is taken care in revised PDD.			
Date: 10-12-2007 [Pankaj Mohan] The revised PDD submitted was checked and found to be in line with the monitoring methodology ACM0004 version 2. [Acceptance and close out] OK CAR19 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
20	CAR	Uncertainty of data is not mentioned under each parameter.	B11.2
Date: 05-12-2007 [Comments] The procedures for addressing to the uncertainty of Data has been taken care in revised PDD.			
Date: 10-12-2007 [Pankaj Mohan] The revised PDD is mentioning the uncertainty of each parameter correctly. [Acceptance and close out] OK CAR20 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
21	CAR	QA / QC procedures are not mentioned.	B.11.3
Date: 05-12-2007 [Comments] QA/ QC procedures are provided in the revised PDD.			
Date: 10-12-2007 [Pankaj Mohan] The revised PDD submitted is mentioning the QA/QC procedures for each parameter. [Acceptance and close out] OK CAR21 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
22	CAR	Annex 3 of PDD mentions the data wrongly as baseline is incorrect.	B.13.12
Date: 05-12-2007 [Comments] Baseline is changed in revised PDD considering Eastern Regional Grid as baseline as a conservative approach and Annex 3 is revised.			
Date: 10-12-2007 [Pankaj Mohan] The revised PDD mentions the baseline correctly and hence the annex 3 is also correctly mentioned. [Acceptance and close out] OK CAR22 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
23	CAR	The assumed crediting period is fixed for 10 years and expected start date of crediting period is 27-11-2006 which is incorrect as the starting date of crediting	B.13.14

		period should be from the date of registration as per EB guidelines.	
Date: 05-12-2007 [Comments] Starting date of crediting period is changed in revised PDD as per EB guidelines & the date of registration will be considered as start date of crediting period.			
Date: 10-12-2007 [Pankaj Mohan] The revised PDD is mentioning the start date of crediting period as 01-02-2008 or date of registration which ever is later. [Acceptance and close out] OK CAR23 closed			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
24	NIR	EIA is not required as per host country legislation. Proof to be provided.	C.1.3
Date: 05-12-2007 [Comments] A copy of EIA notification is provided.			
Date: 10-12-2007 [Pankaj Mohan] The EIA notification is provided and checked. This was found to be OK. [Acceptance and close out] OK NIR24 closed out			

Date: 23-06-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
25	NIR	The PDD is not mentioning the media used to invite the comments and also needs to provide the documentary evidence for the same. The project proponent needs to provide the local stakeholder Minutes of Meeting. The PDD is not providing the summary of stakeholder comments. The PDD is also not mentioning the query answered during the stakeholder meeting.	D.1.2 TO D.1.6
Date: 05-12-2007 [Comments] Comments from local stakeholders are invited through advertisement in newspaper, a local stake holders, minutes of meeting of local stake holder is provided. The revised PDD is mentioning the summary of stakeholders meeting and also how the queries were answered.			
Date: 10-12-2007 [Pankaj Mohan] The copy of newspaper advertisement along with minutes of meeting copy was provided which was checked and found to be OK. The revised PDD submitted was also checked and found to be mentioning the summary correctly. This was also checked during local stakeholder consultation by the validator during the site visit. [Acceptance and close out] OK NIR25 closed.			

Observations:

A.4 Annex 4: Statements of Comptency

Statement of Competence

Name: Pankaj Mohan SGS Affiliate: SGS India Pvt. Ltd.

Status

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

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	☒
2. Energy Distribution	☒
3. Energy Demand	☒
4. Manufacturing	☒
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

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