

Mr. R. K. Sethi  
Chair, CDM Executive Board  
UNFCCC Secretariat  
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28 July 2008

Re: Request for review of the request for registration for the CDM project activity "2.5 MW Rice husk based cogeneration plant at Hanuman Agro Industries Limited" (Ref. no.1667).

Dear Mr. Sethi,

SGS has been informed that the request for registration for the CDM project activity "2.5 MW Rice husk based cogeneration plant at Hanuman Agro Industries Limited" (Ref. no. 1667) is under consideration for request for review because three requests for review have been received from members of the Board.

The requests for review are based on the reasons outlined below. SGS would like to provide a response to the issue raised by the requests for review:

Request for Review 1

*The DOE is requested to provide further details regarding how it has been validated that the reported start date of the project activity complies with the .Glossary of CDM terms.*

SGS' Response: The purchase order for the major project equipments i.e. boiler and steam turbine has been placed by the project proponent on 08/02/2005, the purchase orders placed for 22 TPH boiler to Cheema Boilers Ltd (Ref. HAIL/KOL/1033/FEB./2004-2005 dated 8 Feb 2005)<sup>Annex 1.a</sup> and 2.5 MW Steam Turbine to Pentagon Turbines (P) Ltd. (Ref. HAIL/KOL/1035/FEB./2004-2005 dated 8 Feb 2005)<sup>Annex 1.b</sup> has been checked and found appropriate.

In accordance with Glossary of CDM terms (Version 03) "*The starting date of a CDM programme activity is the earliest date at which either the implementation or construction or real action of a programme activity begins.*" Thus for the start date for the project activity under consideration configured on the basis of date of Placement of Purchase Order for 22TPH boiler and 2.5 MW steam turbine i.e. 8<sup>th</sup> February 2005 is the earliest date at which real action of the project activity began, thus the project start date is validated as 08/02/2005.

The anomaly in the project start date description is now rectified in the PDD version 04, page 28 and Validation Report, rev. 2 page 13 attached with this response.

### Request for Review 2

The DOE is requested to describe how the prior consideration of the CDM for this project activity has been validated in light of; the actual start date, the evidence provided and the gap between this start date and the commencement of validation. In doing so the DOE should provide a detailed timeline of the project development and the consideration of the CDM.

SGS' Response: The entire project mile stone activities starting from early project conception stage to submission for validation of the project activity has been reviewed with reference to the proper documentary evidences obtained from the project proponent. The detail description on the same has been summarised in the table below -

Timeline	Milestone activity	Documentary Evidence
October 2004	Pre-feasibility study of 2.5 MW Biomass based Co-generation Plant including CDM revenue.	Pre-feasibility study report of 2.5 MW Biomass based Co-generation Plant. <i>(Annex 2.a)</i>
18/11/2004	Hanuman Agro Industries Limited Management Board resolution towards CDM revenue consideration for the project activity.	Certified true copy of Board resolution note of Hanuman Agro Industries Limited dated 18th Nov 2004.
16/03/2005	Hanuman Agro Industries Limited Management Board resolution towards involvement of additional funding for rice husk based power project.	Certified true copy of Board resolution note of Hanuman Agro Industries Limited dated 16th March 2005
March, 2005	Chhattisgarh Renewable Energy Development Authority (CREDA) appraisal regarding benefits including CDM benefits associated with biomass based cogeneration plant.	CREDA letter (Ref. No. 5214/CREDA/RG/08, dated 11.02.2008 and Ref. No. CREDA/CO-GEN/2007/3148, dated 18.10.2007)
08/02/2005	Placement of Purchase Order for 22 TPH boiler to Cheema Boilers Ltd	Purchase Order for 22 TPH Boiler (Ref. HAIL/KOL/1033/FEB./2004-2005 dated 8 Feb 2005)
08/02/2005	Purchase order for 2.5 MW Steam Turbine to Pentagon Turbines (P) Ltd.	Purchase Order for 2.5 MW Steam Turbine (Ref. HAIL/KOL/1035/FEB./2004-2005 dated 8 Feb 2005)
16/03/2005	Term loan sanctioned by State Bank of India, Industrial Finance Branch.	Term loan sanction letter from State Bank of India, (Ref. IFB/ADB/12/1387, dated 16.03.05)
18/03/2005	Letter from Hanuman Agro Industries Ltd. towards invitation of comments from the local stakeholder regarding the project activity.	Letter from Hanuman Agro Industries Ltd. (Ref. HAIL/RPR/06-07 dated 18-03-2005)
23/05/2005	No Objection Certificate obtained from local village authority	Minutes of the local village authority meeting dated 23/05/2005.
15/09/2005	Consent to Establish for the proposed 2.5 MW Co-Generation Captive Power Plant from Chhattishgarh Environment Conservation Board.	Consent to Establish issued by Chhattishgarh Environment Conservation Board. (Ref. No. 4374/TS/CECB/2005, dated 15/09/2005). <i>(Annex 2.b)</i>
17/04/2006	Consent to Operate obtained from Chhattishgarh Environment Conservation Board.	Consent to Operate under Water Act and Air Act issued by Chhattishgarh Environment Conservation Board, Govt. of Chhattisgarh (Ref. no. 1918/TS/CECB/2006, dated 17/04/2006 and Ref. no. 1920/TS/CECB/2006, dated 17/04/2006). <i>(Annex 2.c)</i>
28/09/2006	No Objection Certificate obtained from Chhattisgarh Renewable Energy Development Authority (CREDA).	NOC issued by Chhattisgarh Renewable Energy Development Authority (CREDA) ref. no. 2924/CREDA/BM/RSB/2006 dated 28.09.06 <i>(Annex 2.d)</i>
22/01/2007	Application for Host Country Approval from Indian DNA.	Application letter for Host Country Approval (Ref. HAIL/RPR/2006-07/439; dated 22/01/2007) <i>(Annex 2.e)</i>



02/04/2007	Host Country Approval obtained from Indian DNA.	Letter of Approval from Indian DNA (F.No. 4/02/2007-CCC dated: 02-April-2007)
04/04/2007	Signing of CDM Validation contract agreement with SGS	CDM Validation contract agreement (Ref. CDM.Val1052 rev.1 dated 29/03/2007)
23/05/2007	Web-hosting of PDD for International Stakeholder Consultation Procedure.	UNFCCC website reference <a href="http://cdm.unfccc.int/Projects/Validation/DB/0N96JQ4WGNMTW7LI7OSSCZ3MLILAW9/view.html">http://cdm.unfccc.int/Projects/Validation/DB/0N96JQ4WGNMTW7LI7OSSCZ3MLILAW9/view.html</a>

As described under reply of question no. 01 above, the project start date has been validated as 08/02/2004 and the during the early stage of project conception the concept towards installation of 2.5 MW coal based cogeneration plant has been conceived by Hanuman Agro Industries Ltd. to meet the internal heat & electricity requirements of the facility but afterwards through internal discussions based on the pre-feasibility study report of 2.5 MW Biomass based Co-generation Plant including CDM revenue prepared by S.R. Corporate Consultant (P) Ltd. and subsequent receiving the appraisal for utilisation of renewable biomass residue as boiler fuel and Carbon Credit revenue from Chattishgarh Renewable Energy Generation Authority (CREDA), Department Of Energy, Government of Chattishgarh, the project proponent has taken up the decision towards implementation of biomass (rice husk) fired 2.5 MW cogeneration plant.

The early consideration of CDM modalities towards the project activity has been validated with reference to the Pre-feasibility study of 2.5 MW Biomass based Co-generation Plant including CDM revenue prepared by S.R. Corporate Consultant (P) Ltd.; dated October 2004, CREDA letter (Ref. No. 5214/CREDA/RG/08, dated 11.02.2008 and Ref. No. CREDA/CO-GEN/2007/3148, dated 18.10.2007), certified true copy of the Board resolution of Hanuman Agro Industries Ltd. dated 18th Nov 2004 & 16th March 2005 and term loan sanction letter from State Bank of India (dated 16.03.05) for INR 8 million.

The documents were found justified towards the acceptance of the fact that the CDM modalities have been considered for the project activity prior to the start date of the project activity.

The project milestone activities as validated with reference with the proper substantiation as described above are self explanatory regarding the gap between this start date and the commencement of validation, beside that it has been verified during site visit that the project proponent was also with the opinion that the project activity can be submitted for validation procedure only after receipt of Host Country Approval from Indian DNA, thus the project proponent has entered into the contract agreement with SGS for project validation after they have received the HCA for the project activity from Indian DNA on 2<sup>nd</sup> April 2007. *(Annex 2.f)*

**Request for Review 3**

*The DOE is requested to clarify how it has validated the efficiency of the baseline coal-fired boiler to be in line with the paragraph 13 of the methodology AMS-I.C (version10).*

**SGS' Response:** The project activity i.e. implementation of 2.5 MW cogeneration plant containing 22 TPH biomass fired boiler replaces the coal fired 12 TPH boiler used for thermal energy generation and grid electricity from the pre project scenario, thus the conservative baseline emission reduction calculation has been configured on the basis of pre project scenario as per paragraph 13 (a).

The baseline emission calculation for "On site Carbon Emission Reduction due to avoidance of use of fossil fuel" has been calculated considering boiler efficiency (76.7%) of the old 12 TPH boiler, i.e. the baseline coal fired boiler and the efficiency of the old 12 TPH boiler has been configured as the maximum among the six years (2001 to 2006) boiler efficiency data which has been calculated on the basis of actual plant data applying the following formula –

$$\text{Formula} = \text{Boiler Efficiency } (\eta) = \frac{\text{Steam Quantity} \times (\text{Steam Enthalpy} - \text{Feed Water Temperature})}{\text{Coal Consumption Quantity} \times \text{Calorific Value of Coal}}$$

The efficiency of the old 12 TPH boiler has been cross checked with the "Baseline 12 TPH coal fired FBC boiler efficiency calculation"*Annex 3.a.* document provided by the project proponent and the yearly coal consumption values used towards the boiler efficiency calculation has been cross checked with the yearly audited Director's report for the period 2001 -2006 *Annex 3.b.* and found justified.



Therefore, determination of efficiency for baseline coal fired boiler on the basis of actual measured plant data for the period 2001 – 2006 is found satisfactory and in accordance with the requirement of AMS –I.C version 10 paragraph 13 (a).

We apologize if the initial validation report has been unclear and hope that this letter and the attached information with corrected documents address the concerns of the members of the Board.

Pankaj Mohan (0091 9871794671) will be the contact person for the review process and is available to address questions from the Board during the consideration of the review in case the Executive Board wishes.

Yours sincerely

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Annex 1.a. - Purchase order for Boiler  
Annex 1.a. - Purchase order for Turbine

Annex 2.a. - Pre-feasibility study report of 2.5 MW Biomass based Co-generation Plant  
Annex 2.b. - Consent to Establish issued by CECB  
Annex 2.c. - Consent to Operate issued by CECB  
Annex 2.d. - No Objection Certificate obtained from CREDA  
Annex 2.e. - Application for Host Country Approval from Indian DNA  
Annex 2.f. - Explanation from PP regarding delay in validation process

Annex 3.a. - Baseline 12 TPH coal fired FBC boiler efficiency calculation  
Annex 3.b. - Coal Consumption data 2001- 2006