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# **VALIDATION OPINION FOR REVISION OF REGISTERED MONITORING PLAN**


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**The Simbhaoli Sugar Mills Limited**

**SSML–Simbhaoli Biomass Power  
Project**

**UNFCCC Ref. No. 1112**

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<b>Organisation:</b> SGS United Kingdom Limited		<b>Client:</b> The Simbhaoli Sugar Mills Limited	
<b>Subject:</b> Validation Opinion for Revision of Registered Monitoring Plan			
<b>Validation Team:</b> Kaviraj Singh – Lead Assessor Ashok Kumar Gautam – Assessor (Trainee) Vivek Kumar Ahirwar – Local Assessor (Trainee)		<b>Distribution/Document Control</b>  <input checked="" type="checkbox"/> No Distribution (without permission from the Client or responsible organisational unit)	
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## Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
COP/MOP	Conference of parties serving as the meeting of parties to Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
GHG	Green House Gas(es)
MP	Monitoring Plan
NIR	New Information Request
PDD	Project Design Document
PP	Project Proponent
SSML	Simbhaoli Sugar Mills Limited
UNFCCC	United Nations Framework Convention on Climate Change

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## 1. Validation Opinion

Paragraph 57 of the modalities and procedures for the CDM allows project participants to revise monitoring plans in order to improve accuracy and/or completeness of information, subject to the revision being validated by a Designated Operational Entity.

SGS United Kingdom Ltd has been contracted by The Simbhaoli Sugar Mills Limited to perform such a validation of the revision of monitoring plan according to the procedure detailed in annex 34 to EB 26 meeting report; the original monitoring plan is part of the PDD of registered CDM project: SSML–Simbhaoli Biomass Power Project and UNFCCC No. 1112. The purpose of a validation is to have an independent third party assessment of the revision of monitoring plan. In particular, the level of accuracy and/or completeness in the proposed revision of the monitoring plan, and the conformity with approved monitoring methodology applicable to the project activity.

By applying the proposed revision of monitoring plan, the transparency in emission reduction calculations will improve. There should be no impact on the calculation of the emissions reduction achieved by this project activity because the revision in monitoring plan is aiming to address the clarity in the required data collection. The inserted parameters ( $BF_{k,y}$ ,  $Q_{\text{project plant},y}$ ,  $Q_{\text{total},y}$ , Moisture content of bagasse,  $NCV_k$ ) will not be used in the emission reduction calculations but shall be used for making the cross check by doing the energy balance in the project activity.

This revision improves the accuracy of information provided and consistency in the registered PDD and the monitoring plan.

Furthermore, we confirm that:

- (a) the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revisions;
- (b) the proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity.
- (c) the project activity is undergoing first verification.

**Signed on Behalf of the Validation Body by Authorized Signatory**

Signature: 

Name: Siddharth Yadav

Date: 14-01-2009

## 2. Introduction

### 2.1 Objective

Paragraph 57 of the modalities and procedures for the CDM allows project participants to revise monitoring plans in order to improve accuracy and/or completeness of information, subject to the revision being validated by a Designated Operational Entity.

SGS United Kingdom Ltd has been contracted by The Simbhaoli Sugar Mills Limited to perform such a validation of the revision of monitoring plan according to the procedure detailed in annex 34 to EB 26 meeting report; the original monitoring plan is part of the PDD of registered CDM project: SSML–Simbhaoli Biomass Power Project and UNFCCC no. 1112 The purpose of a validation is to have an independent third party assessment of the revision of monitoring plan. In particular, the level of accuracy or completeness in the proposed revision of the monitoring plan, and the conformity with the approved monitoring methodology applicable to the project activity.

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

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

### 2.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the Kyoto Protocol requirements, the 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/the project. However, SGS may issue requests for clarifications and/or corrective actions which may provide input for improvement of the project design.

### 2.3 GHG Project Description

As per <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> web page there is no change in the project activity description. The project was registered on 14<sup>th</sup> September 2007 under UNFCCC reference number 1112.

### 2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Kaviraj Singh	Lead Assessor	SGS IN
Ashok Kumar Gautam	Assessor (Trainee)	SGS IN
Vivek Kumar Ahirwar	Local Assessor (Trainee)	SGS IN

### 3. Methodology

#### 3.1 Review of CDM-PDD and Additional Documentation

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

A site visit is usually required to verify assumptions in the baseline.

#### 3.2 Use of the Validation Protocol

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

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

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

Checklist Question	Ref ID	Means of Verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). A Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

#### 3.3 Findings

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

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **Clarification Request (CL)** 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:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A Forward Action Request (FAR) is raised during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

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

Corrective Action Requests, Clarification Requests and Forward Action Requests are raised in the draft validation protocol and detailed in a separate form (Findings Overview). In this form, the Project Developer is given the opportunity to address and "close" outstanding CARs and respond to CLs and FARs.

### **3.4 Internal Quality Control**

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



## 4. Validation Findings

### 4.1 Participation Requirements

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

### 4.2 Project Design

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

### 4.3 Eligibility as a Small Scale Project

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

### 4.4 Baseline Selection and Additionality

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

### 4.5 Application of Baseline Methodology and Calculation of Emission Factors

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

### 4.6 Application of Monitoring Methodology and Monitoring Plan

SGS has performed a validation of the revision in monitoring plan for registered project "SSML–Simbhaoli Biomass Power Project" UNFCCC reference number 1112. The validation was performed on the basis of the UNFCCC criterion which is detailed in Annex 34 to EB 26 meeting report.

The monitoring plan of registered PDD was not found inline to the monitoring methodology ACM0006 version4; therefore for the completion of the monitoring plan following parameters has been inserted in the revised monitoring plan.

#### 1. Quantity of biomass residue type k combusted in the project plant during the year y ( $BF_{k,y}$ )

The quantity of bagasse (biomass) will be estimated (as defined in the ACM0006 V4 page 48 para 3) based on the RT8C records. The sugar mill must submit the 'RT8C form' to the government as a legal requirement every year and this documents include all about the total quantity of the cane crushed and percentage of bagasse generated out the total cane crushed. The values of bagasse generated mentioned in RT8C form can also be cross checked with 'RT7C form' which reports the values of bagasee generated on monthly basis.

#### 2. Net quantity of heat generated from firing biomass in the project plant ( $Q_{\text{project plant, y}}$ )

For calculating the net quantity of heat generated (project plant) the enthalpy of the steam generated, feed water and condensate return (if any) will be calculated. The difference of these two enthalpies will give the net heat generated. The flow, temperature and pressure will be monitored for calculating the respective enthalpies. Used meters (flow, temperature and pressure) will be calibrated annually to maintain the accuracy of the data collection systems.

#### 3. Net quantity of heat generated in all cogeneration units at the project site, generated from firing the same type(s) of biomass residues as in the project plant, including the cogeneration unit installed as part of the project activity and any previously existing units, during the year y ( $Q_{\text{total, y}}$ )

Net quantity of heat that will be generated in all cogeneration units after firing the bagasse at the project site including the cogeneration unit and any previously existing units, will be calculated based on

difference of the enthalpy of steam generated by cogeneration plant minus the enthalpy of feed water and condensate returns, if any. For the monitoring of corresponding enthalpies, steam flow, temperature and pressure will be measured. All the meters (flow, temperature & pressure) will be calibrated annually.

4. Moisture content of biomass residues (bagasse in this case)

The moisture content of bagasse will be estimated by difference in weight (before and after drying the biomass in oven) analysed in onsite laboratory. The estimated moisture content will be used to calculate the dry biomass and possible energy generation/energy balance after the combustion of biomass in the project activity. The weighting balance will be calibrated as per the national standards/annually or supplier specifications.

5. Net calorific value (NCV<sub>k</sub>) of biomass residue type *k*; NCV<sub>k</sub> (GJ/ton)

The dry biomass will be used to estimate the NCV<sub>k</sub>. The analysis will be done by reputed laboratory following the relevant international standards. After every six months, at least three samples will be sent to the external laboratory for estimation of NCV<sub>k</sub> in the bagasse. The values of NCV can be compared with the relevant data source and perilous year values. The values of NCV<sub>k</sub> will be used to determine the energy balance for other parameters.

Referring to the applied methodology ACM 006 version 04, the above mentioned parameters will not be used for emission reduction calculations but can be used for making the energy balance in the project activity. This revision in monitoring plan has been requested done inline to the guidance given in the report of EB33 paragraph 84.

Rest of the monitoring plan remains the same as mentioned in the registered PDD available at UNFCCC website <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> and revised monitoring plan is attached with the revised validation opinion.

There is no other change in the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage

<http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view>.

This revision improves the accuracy of information provided and consistency in registered PDD and the monitoring plan.

#### **4.7 Choice of the Crediting Period**

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

#### **4.8 Environmental Impacts**

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

#### **4.9 Local Stakeholder Comments**

As per the Validation Report by Bureau Veritas Certification, dated 14<sup>th</sup> August 2007 available on UNFCCC webpage <http://cdm.unfccc.int/Projects/DB/BVQI1178194108.53/view> . No changes have been made.

#### **4.10 Findings of Previous Verification Reports**

As this is the first verification of the project activity, no verification report exists at the moment.

## 5. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
01/08/2008	AP Singh	Plant Manager	Monitoring plan and data archiving
01/08/2008	Meher Sidhwa	Consultant	Monitoring plan

## 6. 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/ Revised Monitoring Plan dated 23<sup>rd</sup> December 2008

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):

/2/ Registered PDD version 04 dated 5<sup>th</sup> April 2007

/3/ Validation Report, 14<sup>th</sup> August 2007

/4/ ACM0006 version 04

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