VALIDATION OPINION FOR REVISION OF REGISTERED MONITORING PLAN

Chemplast Sanmar Limited

Destruction of HFC-23 at refrigerant (HCFC-22) manufacturing facility of Chemplast Sanmar Ltd

UNFCCC Ref. No. 0499

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Date of Issue:			**Project Number:**
08/04/2008			CDM.VER0201
Project Title:			
Destruction of HFC-23 at refrigerant (HCFC-22) manufacturing facility of Chemplast Sanmar Ltd			
Organisation:			**Client:**
SGS United Kingdom Limited			Chemplast Sanmar Limited
Subject:			
Validation opinion for revision of Registered Monitoring Plan			
Validation Team:			
Shivananda Shetty – Lead Assessor Sathis Kumar – Local Assessor			☒ No Distribution (without permission from the Client or responsible organisational unit)
Technical Review:	**Trainee Technical Reviewer:**		
Date: 02/06/2008 Name: Sanjeev Kumar	Name: N/A		☐ Limited Distribution
Authorised Signatory:			
Name: Siddharth Yadav Date: 02/06/2008			☐ Unrestricted Distribution
Revision Number:	**Date:**	**Number of Pages:**	
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1	02/06/08	11	
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1. Validation Opinion

Paragraph 57 of the modalities and procedures for the CDM allow 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 Chemplast Sanmar 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 Revised Monitoring Plan during first verification after EB-35 which was approved on 1st February 2008 of registered CDM project: Destruction of HFC-23 at refrigerant (HCFC-22) manufacturing facility of Chemplast Sanmar Ltd UNFCCC reference number 0499. 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 approved monitoring methodology applicable to the project activity.

By applying the proposed revision of monitoring plan, the ambiguity in the data type of some of the parameters and the also the description of one of the parameter that are monitored as part of the registered monitoring plan will be removed. The other monitoring parameters in the original monitoring plan remain unchanged. This revision improves the accuracy of information.

Theoretically, there should be no impact on the calculation of the emissions reduction achieved by this project activity because the revision is aiming to address the ambiguity in the data type and in the description of parameter.

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) This is the third verification for the said project activity. During first and second verification; emission reductions were calculated using the same approach mentioned in revised MP and it was accepted by DOE since it did not have any impact on the emission reduction.

Signed on Behalf of the Validation Body by Authorized Signatory

Signature: 

Name: Siddharth Yadav

Date: 02/06/2008

2. Introduction

2.1 Objective

Paragraph 57 of the modalities and procedures for the CDM allow 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 Chemplast Sanmar 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 Revised Monitoring Plan during first verification after EB-35 which was approved on 1st February 2008 of registered CDM project: Destruction of HFC-23 at refrigerant (HCFC-22) manufacturing facility of Chemplast Sanmar Ltd UNFCCC reference number 0499. 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 host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

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

2.2 Scope

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

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

2.3 GHG Project Description

The project was registered on 16 Feb 2007 with reference number 0499. The first verification was conducted pertaining to the monitoring period starting from 16/02/2007 to 31/08/2007. After satisfactory reply from DOE and project participant to the request for review, issuance of CER was done successfully, on 03/12/2007, subjected to the revision in monitoring plan which includes the changes in the frequency of calibration of HFC23 flow meter prior to the next request for issuance. The second verification was for the monitoring period from 01/09/2007 to 16/11/2007 and the CER's were issued on 20/03/2008.

2.4 The Names and Roles of the Validation Team Members

Name	Role	Affiliate
Shivananda Shetty	Lead Assessor	SGS India
Sathis Kumar	Local Assessor	SGS India

3. Methodology

3.1 Review of CDM-PDD and Additional Documentation

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

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

3.2 Use of the Validation Protocol

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

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

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

Checklist Question	Ref ID	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). New Information Request (NIR) is used when the validation team has identified a need for further clarification.

3.3 Findings

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

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

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

is issued, where:

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

II. validation protocol requirements have not been met; or

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

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

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

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 http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

4.2 Project Design

As per http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

4.3 Eligibility as a Small Scale Project

As per http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

4.4 Baseline Selection and Additionality

As per http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

4.5 Application of Baseline Methodology and Calculation of Emission Factors

As per http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

4.6 Application of Monitoring Methodology and Monitoring Plan

The project activity is using AM0001 version 03. The need for revision of monitoring plan is because the description of one of the data parameter and also some of the data type of the parameters that are monitored are not matching with the data type as mentioned in the registered monitoring plan. The parameter P_HFC23_y as per the registered monitoring plan is Quantity of HFC23 in the waste stream supplied to the decomposition process but actually what is being measured is Purity of HFC23 in waste stream supplied to destruction facility which is measured in % as verified during site visit. Hence in the revised monitoring plan the description of the parameter P_HFC23_y is changed as purity of HFC23 instead of quantity and the data type is also changed to % from mass which is more appropriate. This change does not have any impact on the emission reduction achieved by the project activity.

For some of the parameters $F\_{NaOH,Power,y}$, $F\_{NaOH,Fuel,y}$, $F\_{NA2SO3,Power,y}$, $F\_{NA2SO3,Fuel,y}$, $Q\_{HYDROGEN,y}$, $F\_{HYDROGEN,Power,y}$, $F\_{HYDROGEN,Fuel,y}$, $F\_{COMPRESSED\ AIR,Power,y}$ the data types were different from the data type of the registered monitoring plan. It was clarified that the data type of all the parameters that are used now are based on the actual measurement being made with respect to the particular parameter whereas in the monitoring plan of registered PDD they have mentioned the general category of data type that the particular

parameter may match. The data units have not been changed for any of these parameters and they are same as per the registered monitoring plan. The same units are used for CER calculation and hence it does not have any impact upon the GHG emission calculations. All the parameters are monitored as per the registered monitoring plan and were verified during site visit. Hence in the revised monitoring plan the data types of these parameters are changed to reflect the correct data type of the parameter.

The measurement procedure for the parameters $Q_{\_NaOH,y,}$ $Q_{\_NAHSO3,y}$, $F_{\_NA2SO3,electricity,y}$ are being changed to reflect the actual procedure followed which was verified during the site visit. The parameter $Q_{\_NaOH}$ as per the registered monitoring plan was measured. Plant operation data on NaOH consumption in the process is available in terms of volume of NaOH solution used. The concentration of solution is measured on regular basis and the same is used to estimate the quantity of NaOH consumed. The parameter $Q_{\_NaHSO3,y}$ as per the registered monitoring plan was measured. The salt is being changed to Na_2SO_3 instead of $NaHSO_3$. Both are sulphite salts and are used in the absorber section to neutralise free chlorine. The change of salt does not have any impact on the process or on the emission reduction. Plant operation data on Na2SO3 consumption in the absorber section is available in terms of volume of Na_2SO_3 solution used. The concentration of solution is measured on regular basis and the same is used to estimate the quantity of Na_2SO_3 consumed. The parameter $F_{\_Na2SO3,electricity,y}$ as per the registered monitoring plan was measured. The certificate of power consumption per tonne of Na_2SO_3 is given by the manufacturer, however the figure arrived by manufacturer is not the direct measurement of this parameter but ratio of total energy consumption and total production in the plant. All the parameters are estimated based on actual measurements and hence the data quality is not affected. The changes are made in order to bring in more clarity and correctness in the data parameters being monitored. Any of these changes doesn't have any impact on the emission reductions.

This is conservative and this approach will not affect the emission reduction calculations. Rest of the monitoring plan remains the same as mentioned in the approved revised monitoring plan http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/MonitoringPlanRevisions/01/ValidationReport dated 17/12/2007 mentioned on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view and revised monitoring plan is attached with the revised validation opinion.

There is no other change in the validation report http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view.

4.7 Choice of the Crediting Period

As per http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

4.8 Environmental Impacts

As per http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

4.9 Local Stakeholder Comments

As per http://cdm.unfccc.int/UserManagement/FileStorage/JJ96G84VNV2YWJJEGXAJCV55A4RP1A validation report dated 22-12-2006 available on UNFCCC website http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/view. No Change.

5. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
16/02/2008	Mr. G Sankarasubramanian	– Asst. General Manager (CDM project Director)	Monitoring practice adopted at plant site and requirement under regd. PDD 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 01/04/2008
/2/ Revised Monitoring plan dated 30/05/2008
/3/ Registered PDD version 1.1 dated 10/01/2006
/4/ Approved methodology AM0001 version 03
/5/ Revised Monitoring Plan (http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/MonitoringPlanRevisions/01/RevisedMonitoringPlan) and the Validation report (http://cdm.unfccc.int/Projects/DB/DNV-CUK1152277768.87/MonitoringPlanRevisions/01/ValidationReport)as approved by UNFCCC on 1st February 2008

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