

Mr. R K Sethi Chair, CDM Executive Board UNFCCC Secretariat CDMinfo@unfccc.int

July 30th 2008

Request for review for the request for issuance for CDM project activity "Copiulemu landfill gas project (Center for the Storage and Transfer, Recovery and Control of Waste, Treatment and Disposal of Industrial and Household Waste)" (Ref. no. 0096)

Dear Mr. Sethi,

SGS has been informed that the request for issuance for the CDM project activity "Copiulemu landfill gas project (Center for the Storage and Transfer, Recovery and Control of Waste, Treatment and Disposal of Industrial and Household Waste)" (Ref. no. 0096) for the monitoring period 01 December 2006 - 31 July 2007 is under consideration for review because three requests for review have been received from members of the Board.

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

Requests for Review 1, 2 and 3- Issue 1:

The methane fraction in landfill gas was measured daily, however the ACM0001 ver1 requires that when periodical measurement is chosen, it should be done at 95% confidence level and taking a statistically valid number of samples. The DOE performed a statistical analysis to determine confidence level on the monthly interval and performed the adjustments to a 95% confidence level which resulted in a difference of 1.1% in the final emission reduction calculations. The DOE considered this was not material, therefore closed the issue, but indicated in the verification report that .it is necessary to improve the data statistical analysis to assure the achievement of the methodology. Further clarification is required how the approach taken by the DOE is in accordance with the ACM0001 version1 and how the DOE considered the impact of the difference as immaterial to the final emission reductions.

SGS' Response:

ACM0001 version 1 (page 6) establishes that "The fraction of methane in the landfill gas (wCH₄,y) should be measured with a continuous analyzer or, alternatively, with periodical measurements, at a 95% confidence level, using calibrated portable gas meters and taking a statistically valid number of sample. The continuous methane analyser should be the preferred option because the methane content of landfill gas captured can vary by more than 20% during a single day due to gas capture network conditions (dilution with air at wellheads, leakage on pipes, etc."

To verify the application of 95% confidence level, the confidence interval was calculated ex post by SGS, as a verification exercise, from all the reported daily values using a statistic programme named stata. The methodology does not give guidance on which frequency should the calculation of confidence interval be conducted at, so all the reported values were taken. Once the monthly confidence intervals were obtained (references 19 and 22, submitted with this response as Annexes 1 and 2) using the programme, the values of methane concentration that were higher than the upper limit of the confidence interval determined monthly were replaced in the emission reduction calculation sheet (reference 23 submitted as Annex 3) resulting in a difference of 1.1% which was considered not material since this does not influence significantly the final emission reduction calculation of this monitoring period. However the revised emission reduction calculation and verification report considered that difference (reference 23 as Annex 7).

This was raised as an observation to the project participant to improve the statistical analysis that was provided (reference 20 as Annex 4).



Requests for Review 1and 3- Issue 2:

Description of step 7 in the monitoring report needs to be adjusted to ensure consistency with the formulae in the spreadsheet.

SGS' Response:

The description of point 7 in the monitoring report was changed in the following way to be consistent with the methodology ACM0001 version 1 and the emission reduction calculation sheet: "*Result from 5 and 6 are subtracted to the result from 4 to establish daily tCO*₂eq reduced *i.e. daily net emission reductions*". The revised monitoring report is attached herewith as Annex 7.

Requests for Review 1 and 3- Issue 3:

The verification report is missing a reference document which confirms the flare efficiency test conducted in December 2006, from which the test results were used in this monitoring period.

SGS' Response:

The verification report was updated to include the requested references that were included in the assessment package of the verification and is submitted as reference 21- Annex 6. The revised verification report is also submitted as Annex 7.

Request for Review 2- Issue 2:

The gas analyzer was out for maintenance from 13-15 June 2006, and CH4 content was taken as the average of the previous month. Further clarification is required how this approach is considered conservative.

SGS' Response:

This question is not related to the monitoring period (1st December 2006 to 31st July 2007) covered by this verification.

With the explanation provided above and additional documentation submitted herewith, we hope that all concerns of the EB have been addressed. We do however apologize if this was not sufficiently clear from the verification and certification report previously submitted.

Aurea Nardelli 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

Siddharth Yadav Technical Reviewer <u>siddharth.yadav@sgs.com</u> T: +44 (0) 1276 697837

M: +44 (0) 7712 785772

Encl/.

Aurea Nardelli Lead Auditor <u>aur@sgsssc.general.com.br</u> T: + 55 31 3261-2674 M: + 55 31 9185 2660

Annex 1 – Ref. 19 statistical report Annex 2 – Ref. 22 Annex statistical analysis Annex 3 – Ref. 23 CERs calculation rev Annex 4 – Ref. 20 Copiulemu second verification hourly measurement frequency CH4 Annex 5 – Revised monitoring report version 3 Annex 6 – Ref. 21 FE 2006 CDM Copiulemu

Annex 7 – Revised Verification Report