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Your reference	Your letter of	Our reference	Extension	Date
-	-	Mweb	+49 40 36149- 9051	2013-07-12

Response to Request of Review in the context of the submitted request of issuance of CERs the registered CDM project activity "Caieiras landfill gas emission reduction" (UNFCCC ref. number 0171)

Dear Members of the CDM Executive Board (CDM-EB),

We refer to the request for review received from the CDM-EB in the context of the request of issuance of CERs for the registered CDM project activity "Caieiras landfill gas emission reduction" (UNFCCC ref. number 0171) (monitoring period from 2011-09-01 to 2012-03-31). We would like to provide our DOE response to the comment raised in the context of such request for review. Please find below our response for this request:

Raised comment / reasons for the request of review:

> *1) The DOE is required to further clarify how it has validated that the methane concentration in the exhaust gas, used to determine the flare efficiency, was monitored within the frequency specified by the monitoring methodology and monitoring plan as there were some delays during this monitoring period (from 01/09/2011 to 05/09/2011, from 05/12/2011 to 07/12/2011 and from 07/03/2012 to 31/03/2012). In doing so, the DOE is also required to clarify whether the most conservative assumption theoretically possible was adopted during these delays. Please refer to VVS v3.0 - paragraphs 234 (b) and 246 (a).*

Response for the raised comment:

GLC Response:

In order to address the received comment appropriately, a Clarification Request (CL 1) was raised by the GLC's verification team.

As part of the their response for the raised CL 1, representatives of the project participant Essencis Soluções Ambientais S.A. have initially highlighted that the reason for the occurred relative delays on performing the related measurements and calculations was the non-availability of the third party independent inspection service company "Ecosampling Ambiental Ltda." for performing measurements as previously agreed with Essencis Soluções Ambientais S.A.

The representatives of the project participant Essencis Soluções Ambientais S.A. have however also highlighted that in their view the occurred relative delays in the performance of related measurements for the determination of FE within the considered monitoring period by an independent third party inspection service company were not to be seen as a monitoring deficiency that would compromise the integrity or correctness of the performed monitoring and determination of achieved emission reductions. As part of their view, by taking into account the best practice for the performance of third-party measurements and inspections such as the ones required for the determination of values for FE and by comparing the particular situation of the project activity against comparable requirements of the more recently published CDM methodological guidance for the determination of flare efficiency values as per option B.1 (Biannual measurement of the flare efficiency) of the methodological tool "Project emissions from flaring" (Version 02.0.0), the representatives of Essencis Soluções Ambientais S.A. emphasized that such occurred delays were to be regarded as acceptable. As per "Project emissions from flaring" (Version 02.0.0), related biannual measurements are as explicitly required to be performed "*two time periods in year y during which the flare efficiency is measured, each a minimum of one hour and separated* ***by at least six months***". Thus, as per this currently valid methodological tool, there is no explicit requirement that the time interval between the biannual measurements should not exceed 6 months in some days (like occurred in the particular case of the project activity during the considered monitoring period) under any circumstance. As part of their interpretation, the required separation of measurement intervals "*by at least six months*" in the context of the application of the monitoring requirement for the "Project emissions from flaring" (Version 02.0.0) ensures the required representativeness of the measurements for the whole year in their view. Also from this standpoint, a similar understanding was supposed to be valid for the requirement of the registered PDD.

Notwithstanding the above considerations, a conservative approach was applied in the determination of values for flare efficiency during the time periods of the occurred delays. As per applicable guidance from the methodological tool "Project emissions from flaring" (Version 02.0.0), the project participant Essencis Soluções Ambientais S.A. has applied a value of 90%, which is the default and conservative value for flare efficiency for flares under normal operational conditions (in cases related measurements are not performed), for the calculation of the quantity of methane captured and destroyed by flaring ($MD_{project,y}$). By taking into consideration the applied approach and rationale, it is the opinion of the GLC's verification team that the selection of the 90% value (indicated in the methodological approach of the "Project emissions from flaring" (Version 02.0.0)) represents the application of the most conservative approach as required by the paragraphs of VVS which the received comment refers to.

The Monitoring Report was revised with inclusion of explanations for the applied conservative approach and inclusion of revised figures related to the calculations of emission reductions achieved during the considered monitoring period. Emission reduction calculation spreadsheets were also revised accordingly.

The application the conservative approach by the project participant Essencis Soluções Ambientais S.A. in related emission reduction calculations promoted a decrease of reported emission reductions during the considered monitoring period of 10,004 tCO_2e.

As a conclusion, by taking into account the nature of the occurred non-compliance with monitoring requirement of the monitoring plan of the registered PDD and the applied approach and rationale for the calculation of the quantity of methane captured and destroyed by flaring ($MD_{project,y}$), it is the opinion of the GLC's verification team that the application of the conservative approach (as assessed above) addresses the occurred relative delays for the performance of related measurements for the determination of FE in a deemed reasonable and acceptable manner.

Please kindly consider the updated Verification Report and Monitoring Report attached response to comment received in the context of the request for review. The updated version of the Monitoring Report also included correction of previously existent minor typos mistakes and date format inconsistencies.

We sincerely hope that the CDM EB accepts our aforementioned response.

Yours faithfully,

Germanischer Lloyd Certification GmbH

Markus Weber