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CDM Executive Board

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Request for review

Dear Sirs,

Please find below the response to the request for review formulated for the CDM project with the registration number 0151. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Javier Castro
Carbon Management Service

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Response to the CDM Executive Board

Request 1, 2 and 3

Issue:

The frequency of calibration of the measurement instruments is in accordance with the registered monitoring plan. However the frequency is not in accordance with the requirements of AM0001v3. In such cases the DOE should (EB26, Annex 34, para 2) request a revision of the monitoring plan.

Consolidate response by TÜV SÜD and Project participant:

The methodology AM0001 version 3 in page 5 under monitoring methodology states following:

“The emission reductions are dominated by the quantity of HFC 23 destroyed. To measure this quantity accurately two flow meters, each of which is recalibrated weekly, are used. Most of the time, under normal operation, both flow meters measure the same amount of HFC 23 flows simultaneously. Where the flow meter readings differ by greater than twice their claimed accuracy (for example 10% if the accuracy is claimed to be $\pm 5\%$) then the reason for the discrepancy is investigated and the fault remedied. For the sake of conservativeness the lower value of the two readings will always be used to estimate the HFC 23 waste flows.”

According to this description the procedure to be realized weekly is a “recalibration”, where it is necessary to confirm that the calibration of the equipment is still valid, this confirmation is based on the comparison of the measurement of the flow meter with a pattern flow meter and only in case where the readings differ more than twice the accuracy claimed (in this case 0.7%) then the reason should be investigated. This procedure is exactly followed by the project participants, where the only difference is that the procedure is internally named “verification” and not “recalibration”, as expressed in the revised monitoring report:

“Mass flow of HFC 23 waste gas produced is measured by two Micro Motion flow meters placed in the entrance of the decomposition facility. The flow meters have an accuracy of $\pm 0.35\%$. The flow meters are connected to Distributed Control System (DCS) and their data is archived in the database of the plant.

Verification of the flow meters is done by instrument personnel using the pattern flow meters. Calibration of the pattern flow meters is done according to the calibration procedure of an external company. The pattern flow meters are recalibrated by an external company. The instrument supervisor should ask the contract department for the calibration certificate from this external company.

In order to have more accurate data, flow meter verification is done weekly and, most of the time, under normal operation; both flow meters measure the same amount of HFC 23 mass flow simultaneously. Where the flow meter readings differ by greater than 0.70% the reason for the discrepancy should be investigated and the fault remedied. For the sake of conservativeness, the lower value of the two readings is always used to estimate HFC 23 mass flow.

The decomposition facility includes two flow meters in order to check the waste gas input.

Note: for more information, to see annexed 1."

The "verification/recalibration" tables for 2007 are included in the revised monitoring report attached to this response.

It is clearly shown in those tables that none of the "verifications/recalibrations" have a difference higher than 0.7%, therefore no additional investigation or corrective actions have been required.

Based on the information above, which was available to the verification team also at time of the on-site audit, it was clear for the verifier that the procedure complies with the monitoring plan and with the methodology including the mentioned "weekly calibration". To enforce this argument, it is necessary to mention that a complete calibration procedure is a process that would take some days and therefore not practicable every week. For a calibration of a mass flow meter it is necessary to dismount the instrument and send it to an accredited laboratory. It is clear that this procedure will not be possible to realize in a couple of hour but in some days. Therefore it has to be recognized that the wording in AM0001 is unclear at this point and quality is ensured by weekly comparison with a reference standard (the mentioned re-calibration), a procedure that provides information on the need for any further measures, e.g. a real new calibration. It is recommended revising AM0001 at this point by providing practicable procedures which are available by international standards rather than using the misleading word "re-calibration" which is only applicable by interpretation as functionality test.