



CDM: Form for submission of requests for deviation prior to submitting request for issuance

(To be used by the DOE for requesting a deviation prior to submitting request for issuance)

Name of the entity (DOE) submitting this form	LRQA
Project Ref./Title of the project activity	3483: Bangkok Kamphaeng Saen West: Landfill Gas to Electricity Project
Title/subject of deviation	Application of calibration results to correct for lower accuracy readings during initial calibration from certain continuous flow meters.
Specify the monitoring period for which the request is valid	03 May 2011 - 31 Oct 2011
Date and signature for the DOE	5/12/2011

Please use the space below to describe the deviation and substantiate the reason for requesting a deviation from provisions of registered monitoring plan.

Description of non-compliance with monitoring plan during the monitoring period

In accordance with the monitoring plan contained in the registered PDD, continuous V-cone flow meters were installed to measure the Amount of landfill gas flared i.e LFGflare,y and the Amount of landfill gas combusted in power plant i.e LFGelectricity,y . The instruments were provided by the manufacturer/supplier (Kingsway and KVS Lamways, Shanghai) having accuracy level of $\pm 0.5\%$. These instruments were calibrated in accordance with manufacturer specification by Kingways controls (2006-1) and KVS Lamways, Shanghai before installations. As result of the calibration, certain instruments were shown to have a lower level of accuracy than indicated in the registered PDD. The difference between accuracy following calibration and the manufacturer's specifications are shown below for the respective flow meters.

V-cone serial number ■ Installation date

Replacement of equipment date ■ Achieved accuracy as per calibration report ■ Accuracy level in registered PDD and manufacturer's specifications

10071507 (Flare #1 flow meter) ■ 20/03/11 ■ 21/10/11 ■ $\pm 0.86\%$

(Validity of calibration till 23/08/2012) ■ $\pm 0.5\%$

10071508 (Flare#3 flow meter) ■ 20/03/11 ■ 21/10/11 ■ $\pm 0.78\%$

(Validity of calibration till 23/08/2012) ■ $\pm 0.5\%$

10071511

(Engine#6 flow meter) ■ 05/04/11 ■ 22/10/11 ■ $\pm 0.89\%$

(Validity of calibration till 22/08/2012) ■ $\pm 0.5\%$

10071512

(Engine#7 flow meter) ■ 03/04/11 ■ 22/10/11 ■ $\pm 0.97\%$

(Validity of calibration till 22/08/2012) ■ $\pm 0.5\%$

10071501

(Engine#8 flow meter) ■ 26/04/11 ■ 22/10/11 ■ $\pm 0.90\%$

(Validity of calibration till 22/08/2012) ■ $\pm 0.5\%$

In order to account for the lower accuracy identified for these instruments, the project participants propose to adjust the monitored flow data from the respective V-cone flow meters (indicated above) during their operation period by applying the maximum (lower) accuracy (1%) of the instrument to the measured values by all the above flow meter which will result in a conservative emission reductions. Furthermore, the PP has replaced all the V-cone flow meters which had a lower accuracy during October 2011 (dates as mentioned in the table above against respective flow meters) with newly calibrated meters which have an accuracy level within the $\pm 0.5\%$ range as per the registered PDD.

Please use the space below to describe and substantiate the assessment of the DOE that the deviation does not require a revision of monitoring plan or the changes from the project activity as described in the registered project design document.

The deviation request applies only for some of the V-cones that were implemented from their respective installation dates as mentioned in the table above and were replaced on 21/10/11 and 22/10/11. Therefore, the lower accuracy flow meters were only used temporarily, and now they have been replaced with calibrated V-cone flow meters of required accuracy levels. All the flow meters are in compliance with the manufacturer's specifications and the registered PDD, and hence there will be no need for a revision of the monitoring plan.

The correction made by the PPs is also in line with the method used in the newly adopted CDM project standard (EB65, Annex 5), Appendix 1: Changes that do not require prior approval by the board, para 4a which states that:

4. "If the monitoring equipment actually installed has a lower accuracy level than the one stipulated in the applied methodology and/or the registered monitoring plan, and the monitoring equipment is under the control of the project participants prior approval by the Board is not required if project participants adjust the value measured with the equipment as follows:

(a) If the parameter is used for calculating baseline GHG emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology and/or the registered monitoring plan is deducted from the measured value".

This is the approach applied by the PP but with a more conservative deduction of 1% for each meter.

Please use the space below to describe the impact of the deviation on the estimates of the emissions reductions for the proposed project activity with the use of approved methodology as existing and with the deviation. Please substantiate the estimations with relevant and verifiable data.

The calculation of the emission reductions using the full uncorrected flow monitoring data from the forementioned V-cones resulted in 176,118 tCO₂e emission reductions during the current monitoring period.

By applying a 1% reduction in monitored flow data from the aforementioned V-cones, the emission reductions are calculated as 175,484 tCO₂e emission reductions during the current monitoring period.

Therefore, the above adjustment results in a conservative calculation of emission reductions of used of 175,484 which is a reduction of 634 tCO₂e compared to the actual monitored data.

Link to the monitoring report

<https://cdm.unfccc.int/Projects/DB/SGS-UKL1268326008.88/iProcess/LRQA%20Ltd1321016847.13/view>

If necessary, list attached public files containing relevant information which is not available through the above link

Annex A -Bangkok West (3483) MR2 ER calculation sheets_v3.xls