

To :

The CDM Team
UNFCCC Secretariat

10 April 2012

**Response to incomplete information for deviation for CDM project no. 1783
(I-DEV0462 entitled "The use of open flare system instead of enclosed flare
system"):**

Referring to the above, we would like to respond to the incomplete request made as follows:

Comment no. 1:

In accordance with paragraph 57 of the EB 43 report, the DOE is asked to clearly indicate in their submission the reasons for the delay in installation of the enclosed flare system.

SIRIM QAS Intl. response:

The installation of the incorrect flaring was first detected during the site verification audit conducted by SIRIM QAS Int. in May 2011 for the monitoring period between 1 July and 31 December 2010. It was highlighted as CL 1 and CAR 8 in the verification protocol of the project. It has been clarified by the project owner that the wrong installation was a mistake, due to the fact that they were not aware of the differences between the open and enclosed flare system. As the corrective action to the findings, the project owner had decided to install the enclosed flare system in accordance with the registered PDD. Necessary actions have been taken by project owner to replace the flare system to an enclosed flare system. The project owner has purchased a unit of an enclosed flare system. The delivery and installation of the new enclosed flare system will be completed by the end of April 2012.

Comment no. 2:

The DOE is asked to elaborate further on how this change does not require a change from the project activity as described in the registered project design document. Although the enclosed flare is planned to be installed in the future, the DOE is requested to clarify how it is considered that this change does not raise concerns with respect to i) additionality of the project, ii) scale of the CDM project activity, or iii) applicability and application of the approved baseline methodology under which the project has been registered. Given that an open flare system is being implemented and in future an enclosed flare will be implemented, such a change affects investment costs which would have been incorporated in the original investment analysis. The DOE is therefore requested to clarify how it has been validated that there is no concern regarding additionality and how the deviation procedure is



MS ISO/IEC 17021 : 2006 QS 02121999 CB 01
MS ISO/IEC 17021 : 2006 EMS 17122002 CB 02
MS ISO/IEC GUIDE 65 : 2000 PC 05102004 CB 01
MS ISO/IEC 17021 : 2006 OSH 06122005 CB 01
MS ISO/IEC 17021 : 2006 HACCP 06052008 CB 03
ISO/TS 22003 : 2007 FSMS 23122008 CB 01
MS ISO/IEC 17021 : 2006 FMC 10122009 CB 02



MS ISO/IEC 17025
CALIBRATION / TESTING
SAMM NO. 085 SAMM NO. 086
SAMM NO. 087 SAMM NO. 219
SAMM NO. 231 SAMM NO. 240
SAMM NO. 299 SAMM NO. 354
SAMM NO. 377



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considered suitable to be applied in this case, instead of requesting a change from the project activity as described in the registered project design document.

SIRIM QAS Intl. response:

i) Additionality

It has been confirmed that based on the distribution of the project investment cost in the original investment analysis, the project owner did not allocate any cost (from the total project cost of RM10million) for the purchase and installation of the enclosed flare system. Nevertheless, the registered PDD has been very consistent with the intention to install the enclosed flare system and this was evident from the project description in page 7 and 21 of the PDD.

The change in the flare system was not considered both in the project design and in the investment analysis as the project owner was not aware of the mistake in the installed system. The cost of open flare and enclosed is in addition to the quantified capex in the PDD. It has been acknowledged as a mistake and the project owner has decided to comply with the registered PDD and proceeded with the purchase of the enclosed flare system. It can also be concluded that with the purchase of the new flare system, there will be an additional cost to the projected investment cost compared to the original investment analysis and will result in lower IRR. Given the fact that the flare system was not considered in the original investment cost (the project was already additional), the additional cost incurred in the purchase of the new flare system, will not have any implication on the additionality of the project .

ii) Scale of the project activity

During the verification, it has been confirmed that the only deviation of the project implementation against the registered PDD was the type of flaring system installed. As the open flare system is a less efficient flare system, the resultant emission reduction will not exceed the ex-ante estimation and, the threshold value of 60kt CO₂e annually. As such, the project will remain as a small scale CDM activity.

iii) Applicability and application of the approved baseline methodology under which the project has been registered

The project applies two approved baseline and monitoring methodologies:

- AMS-III.H. "Methane recovery in wastewater treatment" (version 5), for the methane recovery aspect of the project; and
- AMS-I.D. "Grid connected renewable electricity generation" (version 11), for the electricity generation aspect of the project.

It has been confirmed that there are no changes to other parameters associated with methane capture, and electricity generation of the residual biogas. With this information, the requested deviation complies with the applicability and approved baseline methodology as follows:

Paragraph 11 of the methodology AMS-III.H. (version 5) stipulates that the amount of methane recovered, fuelled or flared shall be monitored ex-post, using continuous flow meters.

Paragraph 12 further states that the flare efficiency is defined as the fraction of time in which the gas is combusted in the flare, multiplied by the efficiency of the flaring

process, shall be monitored. One of the two following options shall be used to determine the efficiency of the flaring process in an enclosed flare:

- (a) To adopt a 90% default value, or
- (b) To perform a continuous monitoring of the efficiency.

The registered PDD describes the application of option (a). However, during deviation period, instead of an enclosed flare system, the project activity has used an open flare unit. In accordance with the applicable methodology of AMS-III.H. (version 5), for open flare 50% default value should be used, as it is not possible in this case to monitor the efficiency. If at any given time the temperature of the flare is below 500°C, 0% default value should be used. This is also in compliance with the "Tool to determine project emissions from flaring gases containing methane". For that reason, it can be concluded that the deviation requested is applicable within the methodology application and does not contribute to revision of approved methodology AMS III.H. (version 5).

At the same time, it has been determined and justified that the deviation was not intentional and the implementation of correction is already in progress. The deviation cannot be considered as a permanent change. As such, the verification team is of the opinion that it is appropriate for the deviation procedure to be applied in this case.

Comment no. 3:

The DOE is requested to confirm how it is verified that accurate recording of the temperature of the open flare has been carried out since the beginning of this monitoring period, to enable the application of default values accordingly.

SIRIM QAS Intl. response:

During the verification, the verification team has verified the project's compliance against the registered PDD and the applicable methodology and tool. Since the start date of the monitoring period, the project owner has installed a monitoring system that complied with the methodology AMS-III.H. (version 5) and the "Tool to determine project emissions from flaring gases containing methane".

A temperature sensor had been installed in the flare system to measure the performance of the flare. The sensor is connected to a SCADA system where the temperature data is recorded at every five-minute interval. This is in-line with the requirement of AMS-III.H. (version 5) and the "Tool to determine project emissions from flaring gases containing methane". The temperature sensor [Polypower (Tag ID: P112)] had also been calibrated as per manufacturer's specification and it can be confirmed that the unit was in good condition during the specified period. With this monitoring and recording system in place, it can be confirmed that accurate recording of the temperature of the open flare system was carried out on a continuous basis.

We hope that the above explanations clarify the concerns raised. We are also attaching the following documents for your review.

- 1) Project cost distribution for the initial investment analysis (as at validation stage).
- 2) Purchase order for open flare and enclosed flare system.
- 3) Enclosed flare installation schedule.
- 4) Calibration certificate for temperature sensor (tag ID: P112)

Thank you.

Yours faithfully,



(PARAMA ISWARA SUBRAMANIAM)
DOE Representative
SIRIM QAS International Sdn Bhd