



CDM: Recommendation Form for Small Scale Methodologies (version 01)
(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)

<i>Date of SSC WG meeting:</i>	16–19 February 2010, SSC WG 24
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Clarification on emission reduction calculation in cases where energy output cannot be measured directly in AMS-III.B
<i>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</i>	AMS-III.B, ver. 14
<i>Name of the authors of the query:</i>	Zhang Wei Institution: Xiamen Pengliqing EP development Co., Ltd xmplq2002@163.com

Summary of the query:

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

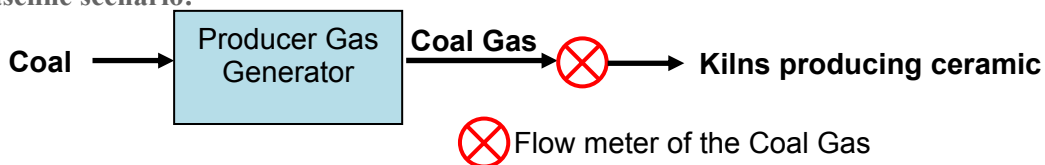
Original text from PP:

We intend to apply AMS-III.B to a project activity where coal is replaced by the natural gas in the process of producing ceramic to achieve the GHG emission reduction.

The paragraph 8 of the AMS-III.B states that “This category is applicable to project activities where it is possible to directly measure and record the energy use/output and consumption within the project boundary”.

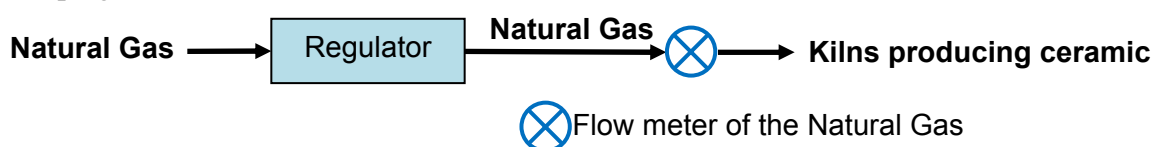
Both in the baseline scenario and project scenario, the energy use of the kilns can be got in the way that multiply gas quantity by its net calorific value and is used in the process of emission reduction calculation described in detail as below. We need the clarification whether the process of emission reduction calculation would be acceptable or not.

The baseline scenario:



The coal gas is produced in the producer gas generator using coal, then transported to the kilns manufacturing the ceramic.

The project scenario:



The natural gas purchased from the NG company is transported to the kilns instead of the coal gas, which results in avoiding the coal using. The project involves switching the pipeline to smaller one and installing

the NG burners and flow meters, but the kiln structure, product quality and the producing process are not changed.

The process of emission reduction calculation

Baseline Emission BE_y :

$$BE_y = EF_{BSL} * Q_{PJ,y}$$

BE_y Baseline emission in the project activity in y year (tCO₂e)

EF_{BSL} Emission factor for the baseline situation(tCO₂e/TJ)

$Q_{PJ,y}$ Energy produced by natural gas in the project activity in y year, gained by multiplying the NG quantity by its net calorific value.

Baseline emission factor EF_{BSL}

$$EF_{BSL} = FC_{BL} * NCV_{coal} * EF_{co2} / Q_{BSL}$$

FC_{BL} Amount of coal consumed in the past three years prior to the project implementation(ton)

NCV_{coal} Net calorific value of the coal (TJ/ton)

$EF_{co2,coal}$ CO₂ emission factor of the coal (t CO₂/TJ)

Q_{BSL} Energy produced by the coal gas consumed in the past three years prior to the project implementation(TJ), gained by multiplying the coal gas quantity by its net calorific value.

Project emission PE_y :

$$PE_y = FC_y * EF_{co2} * NCV_{NG}$$

PE_y Project emission in the project activity in y year (tCO₂e)

FC_y Amount of natural gas consumed in the project in y year(Nm³)

NCV_{NG} Net calorific value of the natural gas (TJ/ Nm³)

$EF_{co2,NG}$ Emission factor of the natural gas (t CO₂/TJ)

Emission reductions ER_y

$$ER_y = BE_y - PE_y$$

All the data used in the calculation are available.

Monitoring data:

1. Amount of natural gas consumed(Nm³), monitored by the flow meters
2. Net calorific value of natural gas (TJ/ Nm³), provided by the NG company.

Recommendation by the SSC WG:

Please use the space below to provide amendments/change (in your expert view, if necessary).

Please refer to paragraph 25 of the meeting report of the SSC WG 24 (http://cdm.unfccc.int/Panels/ssc_wg).

Answer to authors of query by the SSC WG:

Please use the space below to provide answer to the authors of the above query.

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

The SSG WG agreed to clarify that AMS-III.B is intended for project activities whose output is measured in energy units (such as electricity, steam, hot air) as per paragraphs 1, 8 and footnote 2 of the methodology. Thus the proposed approach for calculating emission reductions based on energy input in

the process whose output is primarily a product (i.e., ceramics) is not appropriate. The reasons are as follows:

- Currently written AMS-III.B does not include procedures to cover the issues for example impact on energy consumption due to variation in the raw material quality, density of the materials and processing parameters. For example the quality of the raw material, its grain size etc. can have impact on the energy consumption in the kiln or drier, also the temperature profile in each zones in the baseline and project of the drier needs to be alike in both the baseline and project. A monitoring of all these parameters need to be an essential part of a methodology to cover the described project, however AMS-III.B in its current form does not capture these issues.
- The SSC WG is of the opinion that covering the above issues under AMS-III.B would render the widely used simplified methodology rather complex and hence agreed to reiterate SSC WG response to SSC-347 that a new methodology would be required for such project activities in order to ensure that emission reductions are measurable and reasonably attributable to the project activity. The project proponent also may note the responses provided by the SSCWG to the relevant submissions SSC-NM040 and -NM047.



Signature of SSC WG Chair

(Peer Stiansen)

Date: 19/02/2010



Signature of SSC WG Vice-Chair

(Hugh Sealy)

Date: 19/02/2010

Information to be completed by the secretariat

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