



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 June 2009, SSC WG 21
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	MCF for project activity substituting anaerobic open lagoon to an aerobic biological treatment
<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.I version 07
<i>Name of the authors of the query:</i>	Julie Godin Institution: The World Bank Carbon Finance Unit jgodin@worldbank.org

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:

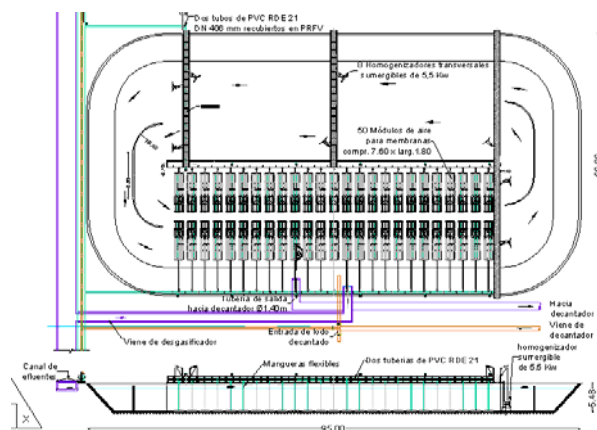
This query refers to the approved methodology AMS III.I and the appropriate selection of a methane correction factor (MCF) for the proposed project activity.

The Río Frío wastewater treatment plant is located in Colombia and is currently including two steps: 1) primary treatment consisting in anaerobic up-flow anaerobic sludge blanket (UASB) reactors; and 2) an open anaerobic lagoon. **This query refers only to the second component.** Under the project activity, it is proposed to substitute the open lagoon to an aerobic biological treatment.

Description of the proposed system under the project activity:

This secondary aerobic biological treatment has two goals: 1) it is a polishing treatment that allows an additional reduction of the organic charge (the COD will be reduced by about 98%, from 360 ppm to 7 ppm); and 2) this treatment also reduces the total nitrogen that will be discharged to the river by about 20% through a denitrification process; this will furthermore reduce nitrous oxide emissions.

It is suggested to use AMS III.I only for the methane avoidance portion of the treatment. The denitrification process implies active aeration in only a portion of the reactor and lower dissolved oxygen in a second section, as illustrated below:



The gray section of the aerial view represents the aerators. Water is first directed in this section and then directed in the non-aerated section passing below a baffle.

The design ensures intensive aeration in the first section that will removed 98 % of the COD. In the non-aerated section, the concentration of dissolved oxygen will be about 5 ppm on average, and not lower than 1 ppm at all times. The design includes various baffles in order to ensure well mix conditions and no formation of anaerobic pockets. In addition, the residence time of less than 10 hours in the reactor will not allow the development of anaerobic conditions. Therefore, we can deduct that methane emissions will be nil or negligible.

Methane Correction Factor (MCF) value

We are requesting inputs from the small-scale working group on the selection of the MFC value for this particular case. The Table III.I.1 of the methodology list alternatives treatment and corresponding MCF values. None of the descriptions listed is in line with the proposed project activity. According to the design and description above, methane emissions will be nil or negligible. Following guidance provided in chapter 6, volume 5 of the *2006 IPCC Guidelines for National Greenhouse*, a value of 0 is suggested. Confirmation and clarifications from the small-scale working group on this selection would be much appreciated.

Recommendation by the SSC WG:

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

Please refer to paragraph 24 of the meeting report of the SSC WG 21
(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 SSC WG would like to clarify that a MCF value of zero can be adopted, provided that the project proponent can demonstrate that there are no anaerobic pockets in the wastewater treatment reactor during operation. In this context, besides the other operating parameters, dissolved oxygen (DO) shall be monitored to ensure that the DO level is maintained above 1 mg/L especially during the maximum loading period.

The SSC WG is also proposing a revision to the methodology AMS-III.I to take this into account.



Signature of SSC WG Chair

(Hugh Sealy)

Date: 19/06/2009



Signature of SSC WG Vice-Chair

(Peer Stiansen)

Date: 19/06/2009

Information to be completed by the secretariat

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