 <p align="center">CDM: Form for Submissions on Small Scale Methodologies and Procedures (version 03) <i>(To be used for presenting questions/proposals/amendments related to the simplified methodologies for small-scale CDM project activity categories)</i></p>	
Name:	Florian Eickhold Institution: Greendevlopment S.A.
Affiliation ¹ :	<input type="checkbox"/> DNA <input type="checkbox"/> DOE <input checked="" type="checkbox"/> PP <input type="checkbox"/> Stakeholder
Title/Subject (max. 200 characters):	Baseline Emission Calculation AMS III.I
Purpose of the submission:	<input checked="" type="checkbox"/> Query on an approved SSC methodology or small scale procedures ² (Fill in field 1. below) <input type="checkbox"/> Request for Revision of an approved SSC methodology (Fill in fields 2. and 3. below) <input type="checkbox"/> Proposal for a new SSC methodology (Fill in fields 4. and 5. below)
Approved SSC methodologies ² to which your submission relates to, if applicable.	AMS-III.I.: Avoidance of methane production in wastewater treatment through replacement of anaerobic systems by aerobic systems --- Version 8.0
Contact Information (e-mail addresses to which the answers are to be delivered and phone contacts for possible dialogue on the submission).	Florian Eickhold Consultant f.eickhold@greendevlopment.com.gt phone: 0034 663939964
Information for completing the form	
Describe the questions related to the SSC Methodologies, Modalities and Procedures below. If the questions are related to a project under development or implementation, you may describe the context in which they arose.	
Query on an approved SSC methodology or SSC procedures	
1. If you have questions relating to the application of an approved small-scale methodology (AMS) please specify and provide reference to the exact technology/measure below. If you have questions related to procedures for SSC project activities please clarify below:	

¹ Designated National Authority (DNA); Designated Operational Entity (DOE); Project Participant (PP), and Stakeholder.

² The list of all approved small-scale methodologies (AMS) can be found at <http://cdm.unfccc.int> and go to CDM: small scale CDM methodologies.

Introduction

Greendevlopment is providing consultancy services to a major sugar cane company based in Guatemala in order to assist with the registration of a small scale CH₄ mitigation project under the CDM. The project deals with improvement of the wastewater treatment system which belongs to the sugar processing factory.

Baseline

In absence of the project activity degradable organic matter in wastewater is treated in anaerobic systems and methane is emitted to the atmosphere. Several cleaning processes use large amounts of water along the sugar production process. The wastewater is directed via canals to an anaerobic open lagoon system. After treatment the wastewater is applied on the sugar cane fields.

Project

The current anaerobic baseline wastewater treatment system should be replaced with an aerobic system.

Question

Baseline emissions from the anaerobic wastewater treatment system are estimated according to page 3 from the methodology which details:

“To determine COD_{removed,i,m,y}: as the baseline treatment system(s) is different from the treatment system(s) in the project scenario, the monitored values of the COD inflow during crediting period will be used to calculate the baseline emissions ex post. The COD removed by the baseline system(s) shall be based on the removal efficiency of the baseline systems estimated as per paragraphs 5 or 6.”

The project activity will install an aerobic wastewater system. As well, the improvement of the system involves adding new technology to the cleaning process to drastically reduce water consumption. Thus the amount of wastewater treated aerobically in the crediting period will be significantly less than it would have been in absence of the project.

In order to calculate the baseline emissions ex post, we suggest to define (ex ante) a conservative factor based on historical data to demonstrate the relation between COD inflow and amount of processed sugar cane in the baseline scenario. During the crediting period we shall monitor the amount of processed sugar cane. In our opinion we can define the COD inflow during the crediting period by multiplying the above mentioned factor with the monitored amount of processed sugar cane as a bases for the required ex post baseline emission calculation.

Do you agree with our line of argumentation? Please indicate your opinion and further guidance.

Completeness check and answers 17.02.11

1. Please elaborate more the difficulties caused by the changed washing water consumption in applying the methodology. It is our understanding that the total organic matter in the wastewater depends on both the flow (Q) and the COD concentration of the wastewater. Although there would be some changes in the level of washing water consumption, the total organic matter can still be determined by multiplying the monitored wastewater flow with its COD concentration.

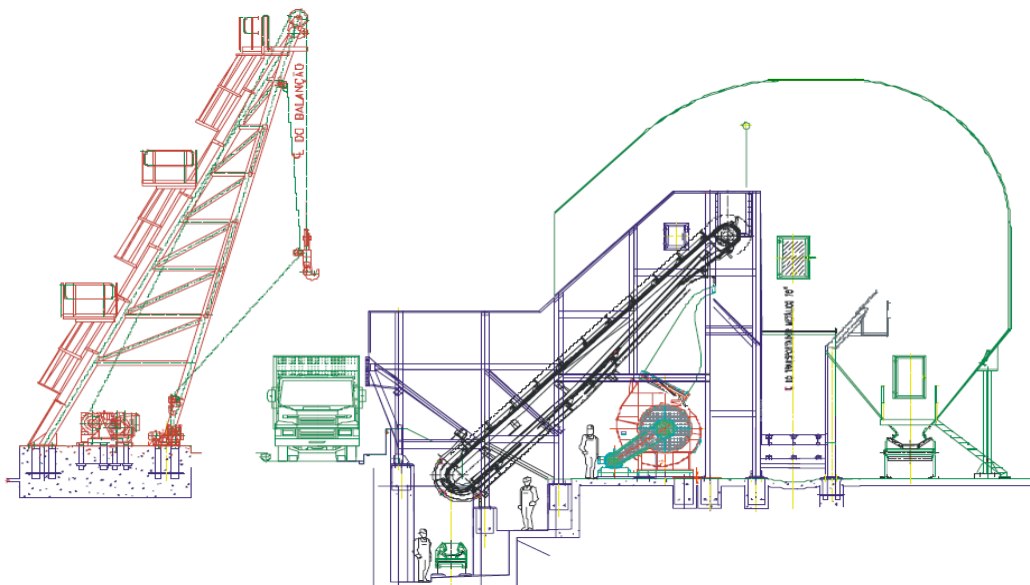
ANSWER 1:

The project involves measures to reduce water consumption in the cleaning process by switching some processes from washing with water to dry cleaning. Practically speaking, in the baseline scenario the sugar cane delivered from the fields undergoes a washing process in which the sugar cane is cleaned with water from organic matter before entering the processing plant. In the project this cleaning will be done by a new machine called "cleaning table" which separates organic matter from the sugar cane without the application of water. In this way the residue in form of dry organic matter will not be transported by water but carried as dry fertilizer to the fields. Other cleaning processes in the sugar mill will continue as in the baseline but the wastewater flow, and the total amount of organic matter entering the new implemented aerobic wastewater treatment system during the crediting period will be significantly less than in the baseline. Thus a calculation of the baseline emissions based on a direct monitoring of the COD in (ex post) would not enable the integrated project to account for its overall emission reductions.

2. To enable a better understanding of your issues, please provide more details on the improved project system, as mentioned in "As well, the improvement of the system involves adding new technology to the cleaning process to drastically reduce water consumption/sketch/picture may be used.

ANSWER 2:

The following sketch shows the "cleaning table" which cleans the cane with air instead of water. For further detail, see the description of the applied technology in answer 1. The cleaning table is only a minor part of the project activity improving the overall wastewater system.



3. Please provide justification/explanation on how your proposed approach will lead to a conservative calculation of the emission reductions.

ANSWER 3:

In order to enable the project to account for the total of its emission reductions we suggest, according to page 3 of the methodology, to monitor ex post the CODin as a basis for the ex post baseline emissions estimation. However, we complete this CODin value by adding COD from the cane washing process (COD cane washing, ex post) that would have entered the anaerobic treatment system in absence of the project activity and as such has to be part of the baseline emissions estimation.

We suggest to define "COD cane washing, ex post" as follows:

In order to know how much organic matter would have entered the baseline treatment system coming from the cane washing process, we define ex ante and based on historical average data the relationship between processed sugar cane and CODin from this process. This factor (CODin/t sugar cane) we shall multiply by the amount of cane processed during the crediting period.

With regards to average historical data we shall apply conservative factors predicted by the methodology.

Request for revision of an approved SSC methodology

2. If you are proposing an amendment/revision to an approved small-scale methodology (AMS), please provide justifications below:

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3. If you are proposing an amendment/revision to an approved small-scale methodology (AMS) please provide the draft methodology with changes highlighted.

The following documents have been attached to this form:

- ☐ Draft methodology with changes highlighted in Word and PDF formats
- ☐ PDD in PDF format (optional)
- ☐ Additional information (please specify if you are providing any information note, published paper or a report in support of the request for revision of the SSC methodology)

Proposal for a new SSC methodology

4. If you are proposing a new small scale methodology, please provide justifications below:

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5. For submitting a new small scale methodology a filled in form “CDM: form for proposed new small scale methodologies (F-CDM-SSC-NM)” is required.

The following documents have been attached to this form:

- ☐ Completely filled in form “CDM: form for proposed new small scale methodologies (F-CDM-SSC-NM)” in Word and PDF formats³
- ☐ A draft PDD (with sections A to C completed):
 - ☐ Relevant annexes to the PDD are provided
 - ☐ Additional information (please specify if you are providing any information note, published paper or a report in support of the new SSC methodology)

Date you are delivering the contribution:

14.02.2011

Information to be completed by the secretariat

SSC-Submission number

³ The current version of the form (F-CDM-SSC-NM) is available on the UNFCCC CDM website (<http://cdm.unfccc.int>).