



**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)*

<b>Date of SSC WG meeting:</b>	15–18 June 2010, SSC WG 26
<b>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</b>	Clarification on the applicability of AMS-III.D versus AMS-III.H for treating waste water from animal barns
<b>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</b>	AMS-III.D (Version 16) AMS-III.H (Version 14)
<b>Name of the authors of the query:</b>	Ana Carnal Institution: Zero Emissions Technologies SA <a href="mailto:ana.carnal@zeroemissions.abengoa.com">ana.carnal@zeroemissions.abengoa.com</a> , <a href="mailto:elena.fernandez@zeroemissions.abengoa.com">elena.fernandez@zeroemissions.abengoa.com</a>

**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:

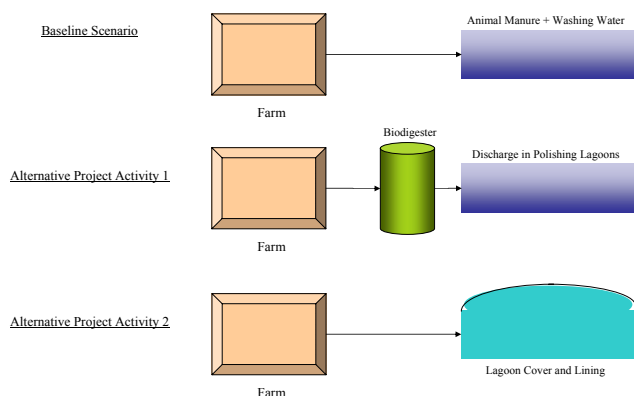
The SSC Methodology AMS.III.D is applicable to “*project activities involving the replacement or modification of existing anaerobic manure management systems in livestock farms to achieve methane recovery and destruction by flaring/combustion or gainful use of the recovered methane*”.

And SSC Methodology AMS III.H is applicable to “*measures that recover biogas from biogenic organic matter in wastewaters by means of one, or a combination, of*” different alternatives. Two of the proposed alternatives in the methodology are the modification of existing anaerobic wastewater treatment to achieve methane recovery and destruction and the introduction of a sequential stage of wastewater with biogas recovery and combustion.

- Paragraph 1.iv: “*Introduction of biogas recovery and combustion to an existing anaerobic wastewater treatment system such as anaerobic reactor, lagoon, septic tank or an on site industrial plant*”;
- Paragraph 1.vi: “*Introduction of a sequential stage of wastewater treatment with biogas recovery and combustion, with or without sludge treatment, to an existing anaerobic wastewater treatment system without biogas recovery (e.g., introduction of treatment in an anaerobic reactor with biogas recovery as a sequential treatment step for the wastewater that is presently being treated in an anaerobic lagoon without methane recovery*”.

The difference between the applicability criteria is not clear for the Project Participant in the following case:

- When the project activity consists on the covering and lining of anaerobic open lagoons in which wastewater is being treated or on the introduction of a biodigester before anaerobic lagoons.
- When the wastewater comes from the barns washing process of the farms, thus it contains the animal manure together with the water used for washing.



The Project Participant would like to clarify whether AMS III.H would be applicable to this project activity, although it would be implemented in a farm in which animal feedstock is under confined conditions (which is in accordance with AMS.III.D), taking into account that manure is washed with water and left for decomposition in anaerobic open lagoons.

The decomposition under anaerobic conditions depends on the organic load in wastewater (specifically, on the COD, which is a concentration). Hence, when animal manure is treated in anaerobic lagoons in which water is added to animal residues, the potential biogas generation due to anaerobic decomposition shall depend on the amount of wastewater added instead of the number of animals in the farm.

Parameters like wastewater inlet flow and COD removal are essential to calculate the generation potential of biogas when manure is treated in lagoons with water. These parameters are not considered in AMS.III.D but are considered in AMS.III.H.

Hence, the PP would like to confirm whether AMS.III.H is applicable to such a project in which animal manure is treated in anaerobic lagoons with water, being the Project Activity the cover and lining of these lagoons with the aim of recovering and flaring the biogas generated.

Further information provided by the project proponent:

1) Whether the majority of generated manure has been removed from barns before the flushing process, i.e. flushing process is only to remove the residual manure;

\_ Yes, the majority of manure is removed from the barns before flushing and flushing is only to remove the residual manure;

2) Whether there will be outflow from the final treatment system, i.e. anaerobic lagoon in both above-mentioned project scenarios;

\_ The outflow in both alternative scenarios is the same than in the baseline scenario. The project scenario consists on the recovery of biogas in one existing treatment step of the treatment system (alternative 2) or by introducing a sequential step with biogas recovery in the existing treatment without biogas recovery. The project is not aimed in the modification of the subsequent treatment systems, if any.

3) The fate of the outflow, e.g. discharged to the natural water body or recycled as flushing water, etc.

\_ The outflow will not be discharged to natural water bodies. Outflow will be recycled as flushing or irrigation water.

**Recommendation by the SSC WG:**

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

Please refer to paragraph 20 of the meeting report of the SSC WG 26  
<[http://cdm.unfccc.int/Panels/ssc\\_wg](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, after considering the further information provided by the project proponent, noted that in the underlying project activity the majority of animal manure will be removed from the animal barns before the flushing process and flushing is only carried out to remove residual manure. In such a context, the SSC WG agreed to clarify that only AMS-III.H is applicable to the underlying project activity.

In addition, the SSC WG agreed to clarify that the treatment of the manure removed before the flushing process shall also be included in the project boundary in order to avoid possible double counting. Since the calculation approach in AMS-III.D is based on the total number of livestock, the entire methane emissions potential from the organic matter content of all manure produced by this livestock - including the residual manure removed in the flushing process - is already accounted for within the AMS-III.D calculations.

Signed by the Chair, Mr. Peer Stiansen

Date: 18/06/2010

Signed by the Vice-Chair, Mr. Hugh Sealy

Date: 18/06/2010

**Information to be completed by the secretariat**

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