



## 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>	23 - 25 May 2007
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Request for revision of AMS III.E to include pelletization as a technology/measure
<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.E
<i>Name of the authors of the query:</i>	<a href="mailto:Olman.Serrano@fao.org">Olman.Serrano@fao.org</a> ; <a href="mailto:Heiner.vonluepke@fao.org">Heiner.vonluepke@fao.org</a> <a href="mailto:Franziska.Haupt@fao.org">Franziska.Haupt@fao.org</a>

### **Summary of the query:**

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

The proposal refers to the possibility that biomass residues from sawmill operations (sawdust) are left to decay under clearly anaerobic conditions causing methane emissions. Sawdust can be processed through pelletization to produce a fuel to be delivered for controlled combustion and therefore avoiding methane emissions. It is suggested to revise AMS III.E to include pelletisation as a technology/measure as currently AMS III.E is only applicable if the organic residue is control combusted.

### **Recommendation by the SSC WG :**

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

Please refer to Paragraph 11 of the meeting report of the SSC WG 10 ([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 bellow 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 authors for the submission. The proposal to revise the methodology is considered feasible as long as some further changes in AMS III.E can be proposed to address the issues below:

- a) Project Boundary: in its current version AMS III.E includes the site where the combustion takes place in the project boundary, as well as the itinerary for transportation of the organic residue (non-combusted biomass) and of the final residues after combustion. The proposed revisions include the site where the pelletization takes place within the boundary but exclude the sites of combustion of the pellets. The authors have clarified that the produced fuel (pellets) are usually distributed and sold in small quantities to various facilities (e.g. hotels, hospitals) and therefore it would be very difficult to identify and coordinate the pelletization and combustion components within one single project activity. Moreover the costs for monitoring would be too high to include the sites of combustion of the pellets. The SSC WG acknowledged the importance to open the possibility and agreed that in the case of pelletization the project boundary may exclude the combustion sites, as long as a conservative factor is adopted to reflect an upper estimate of the distance of transportation from the pelletization plant to the users and of the final residues after combustion. This can be easily incorporated in AMS III.E.

- b) Methane avoidance: AMS III.E defines control combustion as the technology measure to avoid methane. It can be argued that pelletization alone will not achieve the same goal as combustion, since the pellets may not get used immediately after production and be stored or disposed in such a way where it is not possible to exclude anaerobic decay. The authors have countered that pelletization indeed results in avoidance of methane emissions. Pellets are produced with very low humidity (8-10%), the conditions created are obviously aerobic. In order to use pellets as an efficient fuel, this low humidity content will be maintained. The SSC WG accepted this possibility, as long as the proposal includes a method to monitor the characteristics of the produced pellets and the conditions for its storage and use to prevent any occurrence of anaerobic conditions. Further the authors provided additional inputs with the following changes ( as reflected in points 1 and 2 below):
1. The definition of pelletization in the footnote shall be modified as “Pelletization is defined as the compression of wood particles into modules of solid fuel. The process includes thermal and mechanical pre-treatment of the raw material (e.g. saw dust). Pellets have moisture content of appr. 10%.”
  2. Two additional paragraphs in the Technology/Measure section shall be added :
 

“6. The physical and chemical properties of the produced pellets shall be homogenous and constant over time. The produced pellets should not be stored in a manner that may result in anaerobic conditions before their use.

7. Project participants shall provide documentation showing that further handling and storage of the produced pellets do not result in anaerobic conditions and do not lead to further absorption of moisture.”

The SSC WG agreed these changes are not sufficient to completely address the issue and further strengthening of these conditions would be necessary. A better approach would be to monitor the moisture content of the pellets by sampling (to ensure a moisture content of pellets which is not above 10% as cited by the proponent), and its ability to re-absorb moisture, as prescribed in AM0025 as follows:

“It has to be demonstrated regularly that the characteristics of the produced RDF/SB should not allow for re-absorption of moisture of more than 3%. Otherwise, monitoring the fate of the produced RDF/SB is necessary to ensure that it is not subject to anaerobic conditions in its lifecycle.”

The threshold values for the moisture content of the pellets and its moisture re-absorption capability need to be clarified. The authors may consider the maximal 10% moisture content of the produced pellets and the maximal 3% re-absorption capability.

Other issues: Further there might be a need for addressing the potential emissions from the solid wastes generated in the pelletization plant. These wastes may partly originate from the input biomass residues for pellet production that do not get utilised for some reasons. Chemicals and other additives (biogenic or non-biogenic) used in the pelletization plant may also be contributing to these emissions. There may be also emissions from the pelletization plant, not only related to the consumption of fossil fuel or electricity, but also due to thermal decomposition of the biomass. The authors are requested to clarify and address these issues. Another question is related to the final end use of the pellets in the combustion facilities. In AMS III.E the use of auxiliary fuels in the combustion facility is monitored and the corresponding emissions are discounted from emission reductions as they are considered project emissions. In the case of the pellets, since the combustion facility will not be included in project boundary, the use of auxiliary fuels shall be treated as leakage; either it shall be demonstrated that the pellets can be used for combustion without the need of auxiliary fuels or a conservative factor can be used to discount this potential use of auxiliary fuels. Finally, since the proposal is to expand the applicability of AMS III. E to include pelletization, it may be pertinent to consider a broadening of the methodology, to accommodate a more general concept like RDF (refuse-derived fuel, that can include pelletization, briquettes and others) and SB (stabilized biomass) as is the case of AM0025.

Kindly note SSC WG11 is from 4-6 July 07 and therefore you are requested to provide your response as soon as possible but not later than 15 June 07 for the case to be considered at SSC WG11. If your inputs

arrive later than 15 June 07 the consideration of the case may get postponed to SSCWG12.



Signature of SSC WG Chair .....

Date: 25/05/2007 (Ulrika Raab)



Signature of SSC WG Vice-Chair .....

Date: 25/05/2007 (Richard Muyungi)

**Information to be completed by the secretariat**

SSC-Submission number	SSC_096
Date when the form was received at UNFCCC secretariat	25 May 2007
Date of transmission to the EB	25 May 2007
Date of posting in the UNFCCC CDM web site	25 May 2007