 <p style="text-align: center;">CDM: Proposed New Methodology Meth Panel recommendation to the Executive Board (version 03) <i>(To be used by the Meth Panel to make a recommendation to the Board regarding a proposed new methodology)</i></p>	
Date of Meth Panel meeting:	26 - 28 January 2005
Related F-CDM-NM document ID number (electronically available to EB members)	F-CDM-NM0067: “Gerdau Carbonisation Improvement Project”
Related F-CDM-NMex document ID number(s) (electronically available to EB members)	F-CDM-NM0067: Sutter/Sharma
Related F-CDM-NMpu document ID number(s) (electronically available to EB members)	F-CDM-NMpu0067: Graichen
<p><i>Note to those completing this form, as applicable: Please provide recommendations on the proposed new baseline and monitoring methodologies based on an assessment of annexes 3 and 4 and of their application in sections A to E of the draft CDM PDD, desk reviews and public input. Please ensure that the form is entirely filled and that arguments and expert judgements are substantiated.</i></p>	
A. Final recommendations by the Meth Panel	
I. Recommendation on the proposed new baseline methodology: <i>(checkmark the choice made)</i>	
Title of proposed new baseline methodology:>> GHG Reduction in Industrial Process Baseline Methodology	
<p>a. To approve this proposed methodology with minor changes</p> <p><input type="checkbox"/></p> <p>i. Conditions under which this proposed methodology is applicable to other potential CDM project activities (e.g. project type, region, data availability):</p> <p>>></p> <p>ii. Minor changes:</p> <p>>></p>	
<p>b. To reconsider this proposed methodology, subject to required changes</p> <p><input type="checkbox"/></p> <p>i. Conditions under which the proposed methodology is applicable to other potential projects (e.g. project type, region, data availability):</p> <p>>></p> <p>ii. Required changes:</p> <p>>></p> <p><i>(Project participants shall make required changes to the proposed new methodology and send it back to the Meth Panel. The proposed new methodology will be reconsidered by the Meth Panel if changes required are made by the project participants. The Executive Board will only consider this proposed new methodology after the revised proposed methodology has been reconsidered by the Meth Panel.)</i></p>	

c. Not to approve the proposed methodology



i. Reasons for non-approval

>> (See detailed explanation of the reasons in following sections).

Too many and too substantial changes are required. The methodology should be fully redrafted.

It is rather difficult to imagine what the DOE would have to check and on which basis it will assess if the methodology has been correctly applied. The methodology should be redrafted using more precise and unambiguous language.

No explicit rationale to determine the baseline scenario itself.

Some explicit assumptions seem contradictory (see section 6.a below).

The methodology does not specify whether absolute emissions of the baseline are calculated ex-ante or ex-post: this is not acceptable but can easily be fixed.

For information, guidance in case the proponent intend to resubmit a new methodology:

Application of methodology:

- Focus the methodology on a clearly defined project category, avoid too general and imprecise formulations.

Calculation of emission reductions:

- Avoid crediting of emission reductions which are not project-driven, revise the formula for calculating emission reductions (see B.I.4).
- Give instructions how to validate the applicability of GHG emission factors and GHG destruction factors.
- Provide a safety margin when applying emission and destruction factors that depend on parameters influenced by equipment maintenance and operation mode.
- The methodology does not specify whether absolute emissions of the baseline are calculated ex-ante or ex-post, which is not acceptable

Leakage:

- Account for leakage related to market impacts (e.g. increased profitability and hence an increased market share of end product due to additional revenues from sales of CERs);
- Account for secondary GHGs that are a product of GHGs destroyed by the project activity
- Give instructions for determining the emission factor of power purchased from the grid.
- Update the reference to the CDM Meth Panel's draft consolidated tools for demonstration of additionality, as these tools have been approved by the CDM Executive Board in the meanwhile.
- In section D.6, Eb is first defined as "project emissions" and later as "baseline emissions". This needs to be rectified.
- A sentence in Section B mentions "for more details see Annex III section 6". It is not clear which section 6 is being referred to.

(A new proposal should be submitted in accordance with the procedures for submission and consideration of proposed new methodologies of the Executive Board.)

II. Recommendation on the proposed new monitoring methodology: (checkmark the choice made)

Title of proposed new monitoring methodology: >>GHG Reduction in Industrial Process Baseline Methodology

a. To approve this proposed methodology with minor changes

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i. Conditions under which methodology is applicable to other potential projects (e.g. project type, region, data availability):

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ii. Minor changes:

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b. To reconsider this proposed methodology, subjected to required changes

☐

i. Conditions under which the proposed methodology is applicable to other potential projects (e.g. project type, region, data availability.):

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ii. Required changes:

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(Project participants shall make required changes in the proposed new methodology and send it back to the Meth Panel. The proposed new methodology will be reconsidered by the Meth Panel if changes required are correctly made by the project participants. The Executive Board will only consider this proposed new methodology after required changes proposed have been made and the revised proposed methodology has been reconsidered by the Meth Panel.)

c. Not to approve the proposed methodology

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i. Reasons for non-approval:

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- Too many and too substantial changes are required. The methodology should almost be fully redrafted.
- Consistently with changes to be done in the baseline methodology, focus the methodology on a clearly defined project category, and define concrete parameters to be monitored.
- Define parameters that monitor whether the project activity is implemented and under operation.
- Define parameters that monitor whether the GHG destruction devices implemented in the project field are performing according to the literature data used for the emission reduction calculation.
- Provide evidence that the raw material used in the production process is from renewable sources throughout the crediting period.
- Define monitoring parameters for the main sources of leakage as identified under B.I.8.

(A new proposal should be submitted in accordance with the procedures for submission and consideration of proposed new methodologies of the Executive Board.)

B. Details of the evaluation of the proposed new methodology by the Meth Panel:**I. Proposed new baseline methodology (*specify title here*): >> GHG Reduction in Industrial Process Baseline Methodology****(1) Short description of the methodology, including an assessment of which approach from paragraph 48 of the CDM modalities and procedures was used:***a) Describe the methodology:*

>> The proposed methodology indicates that baseline scenario and additionality are to be determined by applying in a step-wise process described in the CDM Meth Panel's (draft) consolidated tools for demonstration of additionality.

The emission calculation: Baseline as well as project emissions are not measured but estimated by multiplying production output with an estimated GHG emission factor and an estimated GHG destruction factor. Then, project emissions and an unspecified leakage term are subtracted from baseline emissions. The methodology does not specify whether absolute emissions of the baseline are calculated ex-ante or ex-post.

b) State the approach selected:

>> Approach as per paragraph 48(b) of the CDM modalities and procedures: "Emissions from a technology that represents an economically attractive course of action taking into account barriers to investment".

c) Indicate (in summary form) why the approach selected is the most appropriate. Please provide your expert judgement on the appropriateness of the selected approach to the project category:

>> The approach of the paragraph 48(b) of the CDM modalities and procedures can be considered the most appropriate to define the baseline of this type of activity in which project activities are usually prevented to occur due to financial reasons.

(2) Basis for determining the baseline scenario:*a) State whether the documentation explains how the baseline scenario is to be chosen and identified:*

>>

- The proposed methodology is only referring to (without any additional development) the "Tool for the demonstration and assessment of additionality" for both the determination of the baseline scenario and to demonstrate additionality. Strictly speaking, "Step 1" of additionality tools consists in Identifying alternatives to the project activity, but the additionality tools don't provide guidance to select any alternative as the baseline. No further explicit guidance, e.g. how to define alternatives to the project activity or whether an investment analysis or a barrier analysis should be conducted is explicitly given by the proposed methodology.

So it is necessary to explain how these tools are used to determine which alternative is the baseline.

- As a matter of fact the methodology implicitly defines the baseline scenario as the business as usual scenario (current process and technology) following exactly the same level of activity than the project, this level of activity being determined ex post. This can be justified by assuming that the project activity is pure "end of the pipe" process and doesn't have any influence on the level of activity.

While such baseline may be considered as trivial for the associated project, it may not be the case for the other projects belonging to the six other categories of activities to which this methodology supposedly applies. For instance, it is far from obvious that the BAU scenario is always a credible baseline in case of fugitive emissions, for which a reduction of fugitive emissions instead of destruction could also be a credible baseline.

While it is clear in the associated draft CDM-PDD for the specific case of the associated project (there are only incremental costs and no incremental benefits associated to the project activity, allowing to apply the "simple cost" investment analysis), it is not clear in the methodology itself how additionality

tools are used – as very shortly stated in section D.1 - to clearly determine that the BAU scenario is a always credible baseline scenario for all categories of activities.

b) State the basic underlying rationale for algorithms/formulae used (e.g. marginal vs. average basis) (see also section 4 below):

>> No explicit rationale to determine the baseline scenario itself.

Regarding emissions reduction calculation, the methodology introduces equations (equation 1, 2, 3 and 4) which can be synthesized in the following manner: baseline as well as project emissions are not measured but estimated by multiplying production output with an estimated GHG emission factor and an estimated GHG destruction factor. Then, project emissions and an unspecified leakage term are subtracted from baseline emissions.

c) State whether the documentation explains how, through the use of the methodology, it can be demonstrated that a project activity is additional and therefore not the baseline scenario. If so, what are the tools provided by the project participants?

>> The methodology states that "Draft consolidated tools for demonstration of additionality" is used to determine additionality. There is no further elaboration on how the steps described in the referenced document are applied.

d) State whether the basis for determining the baseline scenario and for assessing additionality is appropriate and adequate:

>> Determination of the baseline scenario: The answer is no (see sub-section a above for details).

Assessment of additionality: More specific indications should be provided regarding how to apply the additionality tools: is the "simple cost analysis" always the one to be used? If not what could be for instance the barriers for this type of activity?

(3) Assessment of the description of the proposed methodology and its applicability

a) State whether the methodology has been described in an adequate manner:

>> Some parts of the methodology are described in an adequate manner, others are not. The methodology uses vague terms like "in most situations" or "are expected to be constant". which is not considered adequate. Another example of vagueness is the paragraph repeated in sections D.4 and E.1, (parameters and assumptions) which states that:

"The results of this comparative analysis between possible scenarios should be evaluated in the context of sector trends and incorporating the effects of any legislation and government policies that may affect this trend. This can be done by analyzing the policies as well as the behavior of companies involved in the same production sector in the region where the project will be implemented".

It is rather difficult to imagine what the DOE would have to check and on which basis it will assess if the methodology has been correctly applied. The methodology should be redrafted using more precise and unambiguous language.

In same section E.1 it is mentioned that "conservative calculation of IRR as explained above", when it is not explained anywhere. The only paragraph that may help to understand what is meant here is the section on weaknesses (A.4) of the methodology where it is said that it is more dependent than usual on judgment of the DOE to ensure conservative application of the methodology.

In section D.2 "criteria used in developing the baseline" what does: "Reduction of transaction costs: no additional information must be produced" mean ?

In section D5, the methodology considers two different boundaries (i) for the purpose of establishing the baseline and (ii) for the purpose of monitoring and calculation of emission reductions. The rationale supporting such distinction is not clear.

Certain paragraphs are in the wrong section (for instance equation 4 and corresponding explanation should be in section D.8 and not in D.9. Real D.9 doesn't exist).

In general the methodology appears to be far too much generic leading to vagueness in the description

Example: While the proposed estimation of GHG emissions using emission and destruction factors from

literature might be adequate for the example used (reduction of methane emissions from small-scale charcoal manufacturing), it is clearly not for large-scale industrial processes, where direct measurement of emission factors can be obtained. Other areas that need elaboration, include:

- The formulae for emission calculation do not clearly differentiate between parameters that i) remain fixed during the crediting time, ii) are dynamic and defined ex-ante, and iii) are monitored and defined ex-post.
- Instructions for determining the emission factor of power purchased from the grid are missing.

In section D.6, Eb is first defined as "project emissions" and later as "baseline emissions". This needs to be rectified.

A sentence in Section B mentions "for more details see Annex III section 6". It is not clear which section 6 is being referred to.

Some explicit assumptions seem contradictory (see section 6.a below).

Most parts of the methodology needs to be redrafted in a more specific manner according to specific project category(ies).

The methodology does not specify whether absolute emissions of the baseline are calculated ex-ante or ex-post: this is not acceptable but can easily be fixed.

b) State whether the proposed methodology is appropriate for the referred proposed project activity and the referred project context (described in Sections A-E of the draft CDM-PDD and submitted along with Annex 3):

>> It may be. The main reason why it is that, while the methodology supposedly applies for a wide range of activities, it has obviously been written on the exclusive basis of this project, and, as a result, the project fulfil all the implicit assumptions and applicability conditions of the methodology.

However the implicit assumption of the methodology is that the project implementation results only in addition of equipment for capturing GHG and its destruction to the existing production process. In contrast, it is not clear from draft CDM-PDD whether the project to which methodology is applied is just simply addition of equipment to capture and destroy GHG emissions from production or it also includes replacement of existing Kilns. Further, the methodology states that production is unchanged after implementation of the project. The presentation of information in the draft CDM-PDD gives an impression that total number of Kilns operational increases with time. The estimation of emission reductions show an increase in production over the years giving an impression that new Kilns will be added increasing the production.

The methodology assumes that GHG emission intensity of production remains unchanged before and after the project. But the proposed CDM project description gives an impression that existing Kilns will be replaced by new type of Kilns, whereas, no explanation is provided whether this will affect the GHG emission intensity of production.

c) State whether the application of the methodology could result in a baseline scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity.

>> The methodology can result in reasonable baseline scenario/emissions. But it can also result in non reasonable baseline scenario/emissions.

Please explain:

>> It can result in non-reasonable baseline scenario/emissions if the project activity doesn't meet all the implicit assumptions and applicability conditions.

The methodology though stated to be applicable to all kind of fugitive emissions doesn't take into account possibility of destruction of captured GHG emissions resulting in emission of other GHG emissions.

(4) Assessment of algorithms/formulae and type of data needed:

a) *State whether the description of the methodology includes algorithms and generic formulae that can be applied to other potential project activities (if not, the proposed new methodology will be considered as a project-specific methodology):*

>> The methodology presents generic formulae for estimation of emissions reduction and leakage assessment. The formulae could be used for other potential projects with further refinement as per the need of the project.

b) *Explain the spatial scope of data used to determine the baseline and whether the scope is appropriate:*

>> Most data is required at the local level or is technology related, which seems appropriate. However, while the proposed estimation of GHG emissions using emission and destruction factors from literature might be adequate for the example used (reduction of methane emissions from small-scale charcoal manufacturing), it may be not for large-scale industrial processes, where direct measurement of emission factors could be obtained.

c) *Explain the vintage of data used (in relation to the duration of the project crediting period) and whether the vintage of data is appropriate, indicating the period covered by the data:*

>> All the data used, except the GHG emission intensity of production and discount rate, are project specific data and, hence, the vintage is most recent. The methodology further states that most recent data will be used. Data for GHG emission intensity of production is from 1995 publication of US-EPA. The publication itself states that data is not reliable. A more recent study, which is referred by draft CDM-PDD, also provides GHG emission intensity data and could have been used.

(5) Definition of the project boundary related to the baseline methodology:

a) *State how the project boundary is defined in terms of:*

i) *Gases and sources*

>> The methodology is too generic and does not specify concrete project boundaries. It reiterates general thoughts on project boundaries and refers to AM003.

ii) *Physical delineation*

>> The methodology considers two different boundaries:

- For the purpose of establishing the baseline and
- For the purpose of monitoring and calculation of emission reductions.

While such distinction may make sense (when the spatial scope of alternative options is wider than the one of the proposed project), the rationale supporting such distinction is not clear for the time being. This distinction may not make sense anymore if the revision of this methodology leads to restrict its scope of application.

b) *Indicate whether this project boundary is appropriate:*

>> The methodology being too generic, the definition of the boundary appears also to be too generic.

(6) Key assumptions/parameters (including emission factors and activity levels) and data sources:

a) *List the implicit and explicit key assumptions. Identify those, if any, which are problematic and explain:*

>> Explicit assumptions:

Information on acceptable IRRs or discount rates is available – On one hand, since no alternatives for identification of baseline scenario is provided for situation where IRR or discount rate is not available, this should be also stated as applicability condition for the methodology, when IRR analysis is to be done. On the other hand, if the scope of the methodology is restricted to the point that “simple cost analysis” can

only be done, like for the associated project, this assumption (and the following) becomes meaningless.

Conservative calculation of IRR – This assumption undermines one of the underpinning principles of developing baselines, conservatism. Rather than assuming that IRR estimation is conservative and making it the onus of DOE to verify it, the methodology should include steps to ensure that estimate of IRR is conservative.

The level of production activity will be the same in the project and baseline scenario – Since it is not explained how to account for emission reduction from increased production, this too should be stated as an application condition of the methodology. The actual underlying assumption is that the existing production process will not be changed because the device used to capture the GHG emissions is end-of-the pipe technology. This implies that the only equipment added through the project is the GHG emission capture device and implementation of this device will not result in replacement/modification of any existing equipment(s). This should be stated as the applicability condition of the methodology.

The production efficiency may be different for the baseline and project scenario – This in contradiction with the above assumption. An improvement in efficiency implies that from existing capacity to process inputs the total production will increase. Further, since the production data used for estimating emissions reduction is based on actual production after implementation of project, it seems that in such a case there is a risk that emissions reductions claims can be overestimated.

Implicit assumptions:

Due to the disconnect between the real basis for preparing this methodology (associated project activity) and the too wide scope of application, there are a lot on implicit assumptions, which becomes, for most of them, applicability condition (See section 12 on applicability).

b) State whether the key assumptions are arrived at in a transparent manner:

>> No. See explanation above, especially contradiction between explicit assumptions

c) Give your expert judgement on whether the assumptions/parameters are adequate:

>> No. Two of the four explicit assumptions seem meaningless in the case of the associated project. As a result, in the scope of the methodology is reduced, these assumptions may appear meaningless in the new version

Some of the implicit assumptions not stated in the methodology are:

- Effort to address the local air pollutants from the production process will not affect the GHG emission intensity of production.
- Source of GHG emissions is renewable biomass and, hence, generation of CO₂ from destruction of captured GHG emissions doesn't result in project emissions.
- The GHG emissions from production are difficult to measure and information from published sources is a conservative approximation of actual GHG intensity of production.

d) Indicate which data sources are used and how the data are obtained (e.g. official statistics, expert judgement):

>> The methodology states that the data related to production, costs, inputs, discount rates, IRR, and the project proponents will elaborate price of electricity. The above data for proposed CDM project is project specific except for discount rate and price of electricity, for which no sources are provided.

GHG emission intensity of production should be from scientific publications, specialized institutions and consultants, the IPCC, or any other recognized sources, or from validated/documented data gathered by the project company. In case of proposed CDM project, the data source is US-EPA publication.

The % GHG destroyed parameter should be based on the equipment manufacturer, scientific publication, or any other recognized source. In case of proposed CDM project the data is from equipment manufacturer.

Material and energy input to production should be based on project specific data.

Emission factor for material and energy input should be from scientific publications, specialized institutions and consultants, the IPCC, or any other recognized sources, or from validated/documented data

gathered by the project company. The proposed CDM project uses combined margin method of small-scale CDM project category I.D to estimate emission factor for electricity used by project.

e) *Give your expert judgement on whether the data used are adequate, consistent, accurate and reliable:*

>> Regarding the methodology itself, no judgement is possible as methodology is very general and does not concretely specify data.

Regarding associated draft CDM-PDD:

The data for GHG emission intensity of production, sourced from US-EPA publication, is not a conservative estimate. The US EPA publication itself states that the data has low reliability. GHG Emission intensity reported by another source, referenced in the draft CDM-PDD (Smith et.al, 1998), reports intensity values by Kiln type, which for most types is much lower than the value used by the study. Similarly the IPCC default value also is much lower

f) *State possible data gaps:*

>> No judgement possible as methodology is very general and does not concretely specify data.

(7) Assessment of uncertainties:

a) *State whether the methodology includes an assessment of uncertainties regarding:*

i) *The basis for determining the baseline scenario:*

>> No sufficient assessment is provided. The methodology mentions this uncertainty without assessing it, and stresses the need that it should be analysed by a DOE.

ii) *Algorithms/formulae:*

>> No sufficient assessment is provided.

iii) *Key assumptions:*

>> No sufficient assessment is provided.

iv) *Data:*

>> No sufficient assessment is provided. The methodology mentions uncertainties regarding the financial analysis and emission factors from literature without assessing them, and stresses the need that they should be analysed by a DOE.

b) *State whether the uncertainties presented are reasonable:*

>> Though the uncertainties have been discussed, the methodology doesn't describe how these are addressed. It places the onus of addressing uncertainty on DOEs.

(8) Leakage:

a) *State how the baseline methodology addresses any potential leakage due to the project activity:*

>>

1. The methodology identifies one source of leakage that should to be addressed: emissions from additional input material or energy used in the project case, and suggests a generic and unspecific formula to compute leakage from this source in section D.9.
2. A second source of leakage (collected GHG is transferred into another GHG) is stated, but in fact doesn't correspond effectively to the notion of leakage, but more to the notion of core Project Emission calculations.

b) *Indicate whether the treatment for leakage is appropriate and adequate:*

>> ad 1) While innovative and interesting in principle, the methodology to address emissions from additional input material or energy used in the project case is too generic and needs further specification. For example, give instructions for determining the emission factor of power purchased from the grid.

ad 2) The unjustified, general statement "as this is most likely the case of all applications of this

methodology, this subject will not be dealt in further detail in this document" is not a sufficient rationale. Demonstrate and give specific evidence why the project activity does not need to consider this source of leakage. Otherwise, account for secondary GHGs that are a product of GHGs destroyed by the project activity.

Furthermore, an important source of leakage is not mentioned, and/or it should be at least explained under which conditions neglected:

Account for leakage related to market impacts (e.g. increased profitability and hence an increased market share of end product due to additional revenues from sales of CERs).

(9) Transparency and “conservativeness”:

a) Indicate whether the baseline methodology was developed in a transparent way:

>> The generic nature of methodology description inherently makes the methodology non-transparent because the actual elaboration of most aspects of methodology will have to be undertaken at the application stage of the methodology for a specific project.

b) State whether the baseline methodology is conservative:

>> The methodology provides no description/steps/procedures for ensuring conservativeness in selection of baseline scenario, use of formulae, or data. In most cases it is stated that DOE should ensure proper application. For example, the methodology states that emission factors will be sourced from published sources without providing guidance on which source to use if more than one sources of information are available. In the case of application of methodology to the proposed CDM project, the emission factor chosen are higher than that suggested by IPCC or reported in another reference quoted in draft CDM-PDD. No explanation is provided for the choice or which source is more relevant for the specific case.

Therefore, there is a clear possibility that the baseline emissions are not likely to be conservative.

The general approach for establishing additionality, which follows the CDM Meth Panel's (draft) consolidated tools for demonstration of additionality, is considered conservative.

GHG destruction factors based on scientific literature or equipment manufacturer's data are applied without being verified and without applying a safety margin.

(10) Potential strengths and weaknesses of the proposed baseline methodology (please explain):

>>

Strengths:

- Clearly structured and simple.

Weakness:

The methodology has a number of weaknesses

- The methodology is too generic, which limits the specifics that can be detailed in the methodology.
- The methodology refers to general guidance provided by COP/EB decisions without translating these guidances into specific application steps in the methodology.
- There are certain implicit assumptions made while exploring possible alternative baseline scenarios. These assumptions result in rejection a few of the possible baseline scenarios without explicitly stating so.
- There are no specific procedure(s)/step(s) included in the methodology to ensure that methodology results in a conservative baseline.
- The leakage issue is addressed with superficiality and needs to be further improved.
- As approach (b) is the basis for identifying the baseline scenario, most critical aspect of the methodology is investment analysis. This aspect has not at all been elaborated either in terms of formulae or data and sources to be used for investment analysis.

(11) Other considerations, such as a description of how national and/or sectoral policies and circumstances have been taken into account (please explain):

>> The methodology does not include any specific step to take into account national/sector policies except for what is included in step 1 of draft tool for additionality assessment. The application of methodology to the proposed CDM project considers only the national policies for GHG emissions. An area of policy that may be important and is not adequately addressed is emission control on local pollutants, such as CO and particulate matter, which are significant from charcoal making process.

(12) Applicability of the proposed methodology across project types and regions (please indicate):

>>

- There are strictly only two alternatives possible, the present practice and proposed CDM project.
- The existing technology (Kilns in case of the proposed CDM project) is not expected to be change and improved in the baseline scenario over the crediting period due to expiry of equipment life (at least emission factor and % of GHG already destroyed in baseline scenario are expected to remain constant).
- The proposed project activity only results in use of "end-of-the-pipe" equipment(s) for capturing and destroying production related GHG emissions and does not result in change of any other equipment(s)
- The process in the production, nor affect *per se* the level of activity: this is important since baseline emissions are calculated by applying a baseline emission factor on the production volume in the baseline and project emissions by applying a project emission factor on the production volume in the project scenario; the methodology states that *only* "in most situations" emissions factors and quantity produced are the same. As it stands, the methodology should not be applied if quantity and emissions factors differ in baseline and project.
- GHG emissions intensity and % of GHG destroyed are independent of production level and is statistically constant.
- Source of GHG emissions is renewable biomass and, hence, generation of CO₂ from destruction of captured GHG emissions doesn't result in project emissions.
- Since emission factor associated to the output is considered constant, its implicity supposes that the input is unique, or if there are different mix of inputs possible, all the considered inputs are homogeneous in carbon content;
- The proposed CDM project activities do not result in any monetary benefits.

(13) Any other comments:

a) State whether any other source of information (i.e. other than documentation on this proposed methodology available on the UNFCCC CDM web site) has been used by you in evaluating this methodology. If so, please provide specific references:

>> None.

b) Indicate any further comments:

>>No further comments.

II. Proposed new monitoring methodology (specify title here): >> GHG Destruction in Industrial Processes Monitoring Methodology

In respect of the proposed new monitoring methodology, evaluate each section of annex 4 to the draft CDM PDD. Please provide your comments section by section:

(1) Brief description of new methodology:

Describe new methodology:

>>Two monitoring options:

The methodology provides two monitoring options: option 1 monitors GHG emissions with the help of a

unspecified proxy indicator, while option 2 is a direct monitoring of emission reductions following AM0003. The proposed methodology does not elaborate on option 2 and remains very general when describing option 1. It does not define parameters to be monitored, but gives "examples" of such parameters. In the following, this review is referring to option 1, as option 2 is not elaborated in the proposed methodology.

Option 1:

During the crediting period, the monitoring of the project activity and the baseline is done by monitoring ONE single parameter, namely the quantity of the produced product.

Leakage:

The methodology describes the leakage monitoring in an unspecific manner and suggests to monitor, inter alia, continuously the "demand of input material or energy used in the baseline scenario", which is by definition impossible once the project has been implemented.

(2) Key assumptions/parameters:

a) List the implicit and explicit key assumptions. Identify those, if any, which are problematic and explain:

>> Explicit Assumptions stated in the Document:

- The production of secondary GHG from destruction of primary GHG is not considered as emissions if the raw material used in the production process is from renewable sources (e.g. agricultural waste, biomass from renewable forest plantations) - The assumption should be restated that the CO₂ emissions from destruction of captured GHG emissions are not accounted if the origin of Carbon in primary GHG is from renewable biomass sources.
- The emission factors and technical parameters to be used for the monitoring methodology (e.g. fuel emission factors, efficiency of GHG destruction equipment, etc.), are available from internationally recognized sources - 2nd and 3rd bullet points in section B6 CDM - NMM are subcomponents of the same assumption and should be stated as such.
- The methodology can only be used if there is a simple, transparent and accurate way to measure the proxy indicator (of GHG emissions).
- The Global Warming Potential values for GHGs will need to be those approved by the IPCC - this is a requirement of the baseline development guidelines and, therefore, is not an assumption.
- All the variables included in the baseline definition, additionality test or emission reduction calculation and not included in this monitoring plan are expected to be constant for the project duration - the assumption should clearly state the parameters to be used and also justification should be provided for the assumption.
- The need of inclusion of one or more variable based on sector or national policies and the local DOE will evaluate circumstances - This is not an assumption. The implicit assumption in this methodology is that there is no likelihood of any regulation on GHG emission control over the crediting period and, if there is some such proposal, the process of enacting and implementing regulation in the country is long drawn process, therefore, the policies will not affect the baseline over the crediting period. Further, the assumption essentially implies that the role of Meth Panel through CDM-EB of approving a methodology can be done by a DOE because DOE will have the discretion to decide whether to accept the continuation of past as baseline or modify the baseline scenario by incorporating parameters to account for national/sectoral policies.
- 100% of the installed GHG destruction devices are in operation throughout the crediting period. (Remark: The underlying project comprises up to 1'700 decentralized devices);
 - All GHG destruction devices are always well maintained and operated in an optimal manner;
 - GHG destruction factors of the GHG destruction devices operating in the field are the same as those derived in scientific laboratories / manufacturers' test installations.

b) State whether the key assumptions are arrived at in a transparent manner:

>> No, see detailed explanation above.

c) Give your expert judgement on whether the assumptions/parameters are adequate:

>> The assumptions are inadequate, especially for decentralized projects including hundreds or thousands of decentralized devices.

(3) Data sources and data quality:

a) Indicate which data sources are used and how the data are obtained (e.g. official statistics, expert judgement):

>>

- Production: project case - actual production; Baseline - production is assumed to be same as in project case;
- Emission factor: based on internationally recognized sources. Emission factor for both project and baseline are same;
- % of gas destroyed - based on equipment manufactures or scientific publications;
- Discount rate for IRR calculation - To be indicated by Project proponents and verified by DOE.

b) Give your expert judgement on whether the data used are adequate, consistent, accurate and reliable:

>> The limitations of data are same as those mentioned in the assessment of Baseline methodology.

c) State possible data gaps:

>> Important data for emission calculations that are not covered by the proposed monitoring methodology include:

- Percentage of installed GHG destruction devices that are in operation;
- Percentage of installed GHG destruction devices that are well maintained and operated in an optimal manner;
- GHG destruction factors of GHG destruction devices in the field operating under real-life conditions.

(4) Assessment of the description of the proposed methodology and its applicability:

a) State whether the proposed methodology has been described in an adequate manner:

>> It is not described in an adequate manner. The methodology should be redrafted, focusing on a clearly defined project category. It should not be limited to providing "examples" but has to define clear parameters to be monitored.

b) State whether the proposed methodology is appropriate for the referred proposed project activity and the referred project context (described in Sections A-E of the draft CDM-PDD and submitted along with annex 4):

>> It is not described in an adequate manner. The methodology should be redrafted, focusing on a clearly defined project category. It should not be limited to providing "examples" but has to define clear parameters to be monitored.

c) State whether this proposed monitoring methodology is compatible with the proposed baseline methodology described in annex 3 of the draft CDM-PDD:

>> In order to be compatible with the (revised) proposed baseline methodology, the monitoring methodology has to be expanded and has to incorporate information regarding the issues identified under 3 c).

(5) Leakage *(please elaborate, if appropriate):*

>> The monitoring methodology lacks description of data required for estimating emission factor of energy and material inputs for leakage assessment. Also, only a generic statement is provided regarding source of emission factors stating, "in most cases this parameter will be available in internationally available reference". There is no discussion of its appropriateness or relevance. On the other hand, the application of methodology to the proposed CDM project highlights that emission factor for electricity used is based on combined margin methodology.

Other sources of leakage (as mentioned in B I.8) should be considered.

(6) Quality assurance and control procedures *(please explain):*

>> QA&QC are described in very generic terms without any specifics. Also, as most of the data required for estimating emissions reduction and leakage is from published sources, the important element of QA, appropriateness of reference to project case, is left to the DOE undertaking validation of the project.

(7) Potential strengths and weaknesses of the proposed monitoring methodology *(please explain):*

>>

Strength:

- The methodology is very simple, monitoring a few parameters that need no additional monitoring effort.

Weaknesses:

- The methodology completely fails to monitor whether the project reduces GHG emissions or not. Illustrative example: Even if 100% of the GHG destruction devices stopped operating (resulting in zero GHG emission reductions) after the beginning of the crediting period, the proposed methodology would still report and therefore generate the full amount of emission reductions as long as the underlying production continues.
- The methodology is too general, claiming to be applicable to a wide range of SEVEN different project types. It provides an "example", but does not define clear parameters to be monitored and is therefore highly non-specific.
- GHG emission factors and GHG destruction factors rely on literature data and project specific measurements are not foreseen. While this might be applicable for the example given (reducing methane emissions of a small-scale charcoal manufacturing), it is not adequate for large-scale industrial processes, which the methodology also covers.

(8) Applicability of the proposed methodology across project types and regions *(please indicate):*

>> Both associated baseline methodology and this methodology should be fixed/ largely redrafted before being applicable to other projects.


(9) Any other comments:

a) State whether any other source of information (i.e. other than documentation on this proposed methodology available on the UNFCCC CDM web site) has been used by you in evaluating this methodology. If so, please provide specific references:

>> None.

b) Indicate any further comments:

>> The methodology contains mistakes that could mislead the reader. For example, in table B.2.1. The parameters with the ID numbers 2 and 3 are reported to be measured parameters. Although there might be some measurement involved for producing the literature data that is referred to, these factors are estimates for the emission and destruction factors related to the project activity. The methodology is consistent with baseline methodology presented, but will have to be revised along with the revision of the baseline methodology.

	
Signature of Meth Panel Chair	
Date: 9/02/2005	(Jean-Jacques Becker)
 Signature of Meth Panel Vice-Chair	
Date: 9/02/2005	(José Miguez)
Information to be completed by the secretariat	
F-CDM-NMmp doc id number	F-CDM-NMmp - NM0067
Date when the form was received at UNFCCC secretariat	9 February 2005
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