# CDM: Response form for Request for revision of approved methodologies (version 01.1)

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| *Date of Meth Panel meeting:* | 9 - 13 July 2007 |
| *Title and number of Request for revision* | "Cement production lines involving switching a part or all of the raw material used for clinker production to calcium carbide residue, a non-carbonated calcium source" / AM_REV_0053 |

**Summary of the query:**

Please use the space below to summarize the request for revision on the related approved methodologies.

The request for revision proposes to include switching of a part or all of the raw material used for clinker production to calcium carbide residue (CCR), a non-carbonated calcium source, which is not currently covered by AM0033/ver01. The major revision relates to the fact that switching to calcium carbide residue results in a change in the energy intensity of clinker production, which is restricted under the current version of the methodology. The proposed revision also introduces the option of including Greenfield projects under the methodology. Moreover, the revision provides for methodological approaches to estimate the Loss of Ignition (LOI) in case it is attributed to $CO_2$ and water.

1. The revision introduced the required changes in the applicability conditions to remove the restriction for cases where energy intensity of clinker production changes and the required formulae to estimate the increase in emissions in the leakage section.
2. For Greenfield projects, the revision introduces options to estimate the Loss of Ignition either based on (i) samples from a similar plant in the region (which is not clearly defined) (ii) one cement production line which is ranked among the top 5 plants or the top 20% which has been put into operation most recently and where the properties of the clinker production are based on published information provided by authorized or official documents or (iii) IPCC default values.
3. The methodology introduces 3 options to estimate the Loss of Ignition (LOI) in case it is attributed to $CO_2$ and water. The options are (i) measurement of the mass of the trapped $CO_2$, (ii) measurement of the mass of the trapped water or (iii) calculation of a mass fraction of the carbide residue in the raw mix using plant operation data by theoretical and conservative approach.

**Recommendation by the Meth Panel:**

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

The Meth Panel recommends to accept the proposed revision.

The following issues have been taken into account when preparing the revised version:

1. The formulae introduced to estimate emissions due to increased energy intensity are appropriate. It should be clarified in the project boundary that emissions from increased fossil fuel use, electricity from the grid and electricity from self generation are included in the leakage section.
2. For Greenfield projects, some additional text should be added to clarify that the methodology is applicable for such projects. Also, additional text is required in the baseline scenario determinations for such cases. Using IPCC default values to estimate the LOI should not be permitted since the estimated EF is based on the assumption that the CaO content in the clinker is 65% and that 100% of the raw material is from calcium carbonate. This assumption is too generic and may not be true for all plants. For options 1, the best performing plant should be used while for option 2, the average of all plants in the top 20% or the top 5 plants in the region should be used. The region should be clearly defined as the area including at least the ten cement plants nearest to the plant of the project activity which uses the same raw materials.
3. The formulae provided for estimating the LOI in case the loss of ignition is due to $CO_2$ and water are appropriate. However, option 3 should be integrated into option 2 as this is another method to estimate the mass of the water vapour in the gases rather than a separate option.
4. An applicability condition was added to ensure the availability of non-carbonated raw materials in the region.

(b) Please use the space below for providing guidance, as per Para 93 of EB25 Report, on what type of projects need to revise the PDD as a consequence of the suggested revision, if the recommendation is to revise the methodology.

N/A.

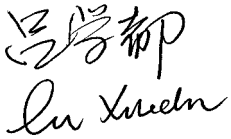
**Answer to authors of the request for revision by the Meth Panel :**

Please use the space below to provide an answer to the authors of the above query

The Meth Panel recommends to accept the proposed revision. However, the Meth Panel recommends not to include the IPCC default emission factors as one of the options in estimating the LOI since the calcium oxide content and the percentage of calcium carbonate in the raw material is variable between regions and plants. Also, the Meth Panel recommends having a clear definition for the region from where the samples are to be taken to determine the LOI.

Signature of Meth Panel Chair ……..

Date: 17/07/2007 *(Akihiro Kuroki)*



Signature of Meth Panel Vice-Chair ……..

Date: 17/07/2007 *(Xuedu Lu)*

| **Information to be completed by the secretariat** | |
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| F-CDM-AM | AM_REV_0053 |
| Name of the authors of the query: | DNV-CUK |
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