

	<b>CDM: Response form for Request for revision of approved methodologies (version 01.1)</b>
<i>Date of Meth Panel meeting:</i>	04 - 08 May 2009
<i>Title and number of Request for revision</i>	Catalytic N <sub>2</sub> O destruction in the tail gas of existing Nitric Acid or Caprolactam Production Plants and newly built Nitric Acid Plants  AM_REV_0108
<b>Summary of the query:</b> Please use the space below to summarize the request for revision on the related approved methodologies.	
<p>This amendment is a modification of the approved methodology AM0028, Version 4.2 in order to broaden its applicability. While AM0028 only applies to existing nitric acid production plants (commercial start of operation prior to the 31st of December 2005), the amendment to this methodology applies also to new nitric acid production capacities, which have been installed and are commercially operational on the day when requesting the registration of a project activity under the CDM.</p> <p>Before determining the baseline scenario for new nitric acid plants, a pre-check was incorporated into AM0028, in order to demonstrate that the decision to invest, erect and operate the new nitric acid production capacity was solely driven by the projected market demand of nitric acid and the final products and therefore without CDM taken into account. Proposed project activities have to demonstrate, that an economic operation of the plant without CDM taken into account is possible e.g. by demonstrating, that the plant could reach break-even based on nitric acid / final product sales within a period of time generally considered appropriate in the nitric acid industry and to substantiate the investment decision by market studies etc.</p> <p>Based on the baseline determination procedure, all conceivable scenarios have to be evaluated and proposed project activities at new nitric acid plants must demonstrate that CDM is the single existing incentive for the implementation of the N<sub>2</sub>O abatement technology.</p> <p>The calculation of baseline emissions at new nitric acid plants has been introduced differently as established for existing plants. This is due to the absence of historical operating data. Therefore, the specific N<sub>2</sub>O baseline emission factor, after deduction of the uncertainty, of the technology used for nitric acid production according to IPCC will be used as conservative default value. Furthermore baseline emissions are limited by the actual quantity of N<sub>2</sub>O at the inlet of the destruction facility and any relevant national regulations. Based on this procedure a conservative determination of the baseline emissions is ensured for all crediting periods and will result in a significant underestimation of baseline emissions.</p> <p>Further, the calculation of project emissions at new nitric acid plants has been incorporated. A specific emission factor is calculated for each monitoring period and compared to the average of the specific emission factors of the prior periods, in order to take into account possible shifts of emission patterns during continued plant operation throughout the crediting period. The most conservative value will therefore be applied for the final calculation of emission reductions.</p>	

Additionally, the final calculation of awardable emission reductions (means emission reductions eligible for CER issuance) has been expanded for new plants, in order to take any undue shift of production of nitric acid into account. In order to discourage any shift of production into non Annex I countries from other countries, the operator's total production output (also taking into account other plants operated by that operator besides the New Capacity Plant) is assessed and a Domestic Consumption Rate is established. The pro-rata share of exports to any countries other than non Annex I countries is deducted from the emission reductions achieved by the project, i.e. the more an operator exports to other than non Annex I countries, the less CERs will be awarded. Furthermore, previously exported amounts of nitric acid and derived final products from other than non Annex I countries to non Annex I countries by the project operator compared to the production of the new plant are considered by establishing the Export Rate, which consequently reduces the domestic consumption rate.

#### **Recommendation by the Meth Panel:**

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

The proposed request is for the approved methodology AM0028 "Catalytic N<sub>2</sub>O destruction in the tail gas of Nitric Acid or Caprolactam Production Plants" adding further information to allow project activities that include new plants to be considered under the CDM.

The Meth Panel agrees not to accept this request for revision. To propose a change in the methodology project participant should follow the "Guidance on expansion of industrial gas recovery methodologies to new facilities". Main issue that need to be considered are:

#### **Disincentive for technological development**

##### **1. Use of IPCC emission factors**

The request suggests the use of IPCC defaults values as a benchmark to estimate baseline emissions. Default values provided by the IPCC are for existing plants, which can not change operating parameters without affecting final product yield, and they cannot be considered as conservative for new plants because new plants can undertake different measurements to improve efficiency and as a side-benefit reduce the N<sub>2</sub>O production without incurring on high costs e.g. optimizing the filtration of raw materials, optimizing the mixing of raw materials, optimizing the gas distribution over the catalyst, optimise oxidation step to reach an optimum NO yield, etc.

Project proponents should take special care when defining the plant-specific baseline emission level on which the calculation of emission reductions will be based during the crediting period campaigns

##### **2. Operating parameters**

The establishment of a permitted range of operating conditions as applicable for plants that became operational on or before 31 December 2005 under the methodology is not appropriate for New Plant. In the case of new capacities the operating parameters should be selected using the criteria to generate the least N<sub>2</sub>O as possible without affecting HNO<sub>3</sub> production. Thus a different procedure to determine the operating conditions is needed; the suggested procedure could be based in "common-practice" of new plants procedures, for example those installed after 31 December 2005, and/or certified technology supplier information.

#### **Diversion of the production from existing facilities to new facilities**

The proposed revised methodology does not address properly the issues regarding diverting supply of nitric acid or fertilizers from existing plants. The methodology focuses the analysis regarding this issue to the plants that are property of the project participant and does not consider the possible impact on other plants that produce the same final product. A more detailed analysis considering the market in the host country or a specific region could be more appropriate.

There is also the following observation about the End product.

The end product to be considered when evaluating possible displacement of products might not be necessarily nitric acid, but the final product of the chemical complex where the plant is installed.

(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.

The recommendation is not to revise methodology.

**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

See above.



Signature of Meth Panel Chair .....

Date: 08/05/2009

(Philip Gwage)



Signature of Meth Panel Vice-Chair .....

Date: 08/05/2009

(Pedro Martins Barata)

**Information to be completed by the secretariat**

F-CDM-AM	AM_REV_0108
Name of the authors of the query:	TUEV-SUED
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