

## **DRAFT GUIDANCE ON EXPANSION OF INDUSTRIAL GAS RECOVERY METHODOLOGIES TO NEW FACILITIES**

### **I. Background**

1. The applicability of the approved methodologies for project activities, which recover and destroy industrial gases with a high Global Warming Potential (GWP) defined here as N<sub>2</sub>O, PFCs and SF<sub>6</sub>, is currently limited to existing facilities, which were in operation by a certain date specified in the respective methodologies. For example, for N<sub>2</sub>O reduction project activities in the adipic acid industry, the methodology AM0021 limits eligible facilities to existing production capacity where the commercial production had begun by 31 December 2004. For N<sub>2</sub>O reduction project activities in the nitric acid industry, the methodologies AM0028 and AM0034 limit eligible facilities to those where the commercial production had begun no later than 31 December 2005.

2. The Board noted an increasing number of proposed new methodologies and requests for revision to the approved methodologies aiming at including new facilities in industrial gas recovery and destruction methodologies.

3. The Board is of the view that, while project activities that reduce emissions of industrial gases in new facilities may be eligible under the CDM, there is a possibility of intentional or unintentional overestimation of related emission reductions. The Board acknowledges that project proponents attempted to address this matter in various recent submissions. Based on the consideration of the recent submissions, the Board has compiled a guidance document specifying the issues that project proponents should address in their future submissions under this category of project activities.

### **II. Guidance**

4. The Board clarifies that project proponents of future submissions on expanding industrial gas reduction methodologies<sup>1</sup> to new facilities (i.e. facilities not meeting the criteria of the respective approved methodologies) should address the following issues:

#### **Incentive to choose technologies with higher by-product rates.**

5. New facilities may install technologies and plant configurations other than those resulting in lowest emissions of by-products for reasons other than potential CDM revenues. However, if the destruction of the by-products is credited under the CDM, new facilities may have an incentive to choose a technology that has a higher level of by-product emissions.

#### Example:

The amount of by-product emissions of N<sub>2</sub>O from the nitric acid production varies depending on configuration of NH<sub>3</sub> reactors. Project proponents may choose to install a reactor with a higher emission rate than the lowest emitting reactor available. They would then install an N<sub>2</sub>O destruction device, which would result in a higher amount of N<sub>2</sub>O destroyed as compared to the situation where a lower emitting reactor is implemented. In this case the question is whether the CDM credits should be based on the actual amount of N<sub>2</sub>O destroyed or on the amount of N<sub>2</sub>O, which would have been destroyed had the reactor with the lowest emission rate been installed? This may depend, partially or fully, on whether the reactor was selected to generate more CERs, or because of other reasons that prevented the project proponents from choosing the lower emitting reactor (price, technical or other constraints, output of nitric acid, etc.).

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<sup>1</sup> Submissions were received with respect to methodologies AM0021, AM0028 and AM0034. This issue may also be relevant to methodologies AM0030, AM0051 and AM0065.

**Diversion of the production from existing facilities to the new facility.**

6. As a result of the crediting of the by-product destruction under the CDM, new facilities may divert the supply of products from existing facilities, which may have a lower emission factor than the new facility, or have an abatement device already installed.

Example:

Assume a new nitric acid plant with a high N<sub>2</sub>O by-product generation rate implementing a destruction device registered as a CDM project activity (plant A) and an existing nitric acid plant with a lower N<sub>2</sub>O by-product rate and no destruction device (plant B). The nitric acid production in plant A after abatement may result in a decrease in the production in plant B. This can happen due to the implementation of a CDM project activity (since income from CERs could be used to make nitric acid available on the market at a reduced price), or for other reasons not related to the CDM (plant A may be more efficiently run or is closer to the customer than plant B). The resulting calculations of CERs may depend on which situation is more reflective of the reality.

**Diversion of the production from facilities in Annex I countries to the new facility.**

7. The choice of the location of the new facility in a non-Annex I country could be driven by the additional revenue accruing from the CERs, while in the absence of the CDM this production would have most likely taken place in an Annex I country. This means that, as a result of the destruction of the by-product under a CDM project activity, new facilities may be able to reduce the price of the product and divert the supply of products imported from existing facilities in Annex I countries, and/or have the same effect by exporting to Annex I countries. This may lead to a possible double counting since the amount of emissions displaced in Annex I countries due to the decreased production can be once again counted as CERs.

Example:

Assume a new adipic acid plant with an installed destruction device being registered as a CDM project activity (plant C) and an existing adipic acid plant in an Annex I country (plant D). If adipic acid produced in plant C is exported to an Annex I country, plant C may displace production at plant D, but this displacement does not change the overall emissions over time. The issue is whether this happens as a result of the CDM (in which case plant D is the baseline) or independently of the CDM (in which case plant C without abatement would be the baseline). In the former case, generation of CERs would result in the double counting of emission reductions.

**Disincentives for technological development.**

8. The registration of new facilities as CDM project activities may prevent the development or diffusion of new technologies with lower by-product emissions.

Example:

The opportunity to implement CDM project activities may indirectly, over time, discourage efforts to develop and disseminate technologies leading to lower by-product emissions (or even resulting in no by-product emissions), which would make destruction technologies unnecessary or less attractive.

9. In future submissions, the above issues should be adequately addressed, either by developing a method to conservatively calculate emission reductions or proving a detailed documentation clarifying why the above issues are not relevant for the underlying project activity.

10. In order to address these issues the Board encourages project proponents to provide sufficient analysis of the production, trade and consumption patterns and technology trends with respect to the industry concerned.

11. The Board also notes that the eligibility of project activities, which recover and destroy HFC-23 from new HCFC-22 production facilities (i.e. those not meeting the criteria stipulated in AM0001), is currently a COP/MOP issue. Therefore, this issue is not covered by the current guidance and will not be discussed by the Board or the Methodologies Panel until a decision on the matter is taken by the Parties.

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