Annex 13

GUIDANCE TO CALCULATE ADIPIC ACID PRODUCTION IN CASES WHERE IT CANNOT BE MEASURED DIRECTLY

(Version 01)

I. Background

1. AM0021 (Baseline Methodology for decomposition of N2O from existing adipic acid production plants) requires parameters $P_{AdOH,BL}$ (quantity of adipic acid (AdOH) produced in the baseline, defined as the maximum value of total amount of adipic acid produced in most recent 3 years before the implementation of the project activity) and $P_{AdOH,pr,y}$ (quantity of AdOH produced in the project activity). Both are required to be measured directly.

2. The background for this guidance is one of the deviation requests which raised the issue for a project activity using the methodology AM0021, that parameters $P_{AdOH,BL}$ and $P_{AdOH,pr,y}$ cannot be measured directly since adipic acid is produced in the form of slurry, which is directly fed into the process of production of nylon 66 salt (AHS), making direct measurement difficult. In order to address this issue, a procedure to calculate adipic acid production indirectly from its measurable derivative is given under this guidance.

II. Applicability of this guidance

3. This guidance applies immediately to all versions of AM0021, and is limited to the following cases:

- It can be demonstrated that direct measurement of adipic acid is not possible due to factors such as facility design; and
- It can be demonstrated that it is not possible to consume adipic acid sourced from outside in the production process concerned, for the purpose of producing derivatives of adipic acid.

III. Procedure

4. For facilities where production of adipic acid (P_{AdOH}) cannot be obtained by measurement as specified in the methodology AM0021, it can be calculated through a stoichiometric calculation from derivative of AdOH., through the following equation:

$$P_{AdOH,} = (146.14/MWx) * P_{x,}$$

Where:

$P_{x,}$	=	Total amount of derivative of AdOH (substance x) produced credited for emission reduction in year *y* (tonnes)
MWx	=	Molecular weight of substance x which is the derivative of adipic acid (AdOH) (g/mole)
146.14	=	Molecular weight of adipic acid

5. An example of substance eligible for *substance x* is AHS, then MWx is 262.14.

6. In the case of nylon 66 salt (AHS) production, its quantity is calculated as the product of nylon 66 salt concentration in aqueous solution of nylon 66 salt and mass of aqueous solution of nylon 66 salt production). Further revision from the methodology AM0021 may be proposed for the production of other substances (e.g. finished product of nylon 66), in case this guidance cannot be applied to the production of these substances.

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History of the document

Version	Date	Nature of revision(s)
01	EB 45, Annex 13 13 February 2009	Initial adoption.