Agenda item 3.1.
Paragraph 5 (a) of the annotated agenda

PMM002: N_2O abatement from nitric acid production

Methodological Expert Panel – 13th meeting
13 to 17 April 2026
Bonn, Germany

UNFCCC Secretariat
Mitigation Division

Procedural background

MEP012 considered the proposed mechanism methodology “PMM002: N2O abatement from nitric acid production” and, on the basis of an extensive revision to the methodology, agreed on an exceptional basis to launch a second call for input.

The proposed new methodology is intended for projects that **reduce nitrous oxide (N_2O) emissions from the production of nitric acid**. These emissions can be reduced through:

- secondary abatement (using catalysts within the reactor to decompose N_2O)
- tertiary abatement (by treating the flue gases to remove most of the N_2O)

The methodology is partially based on the CDM methodology ACM0019.

The history of this bottom-up submission can be viewed on the UNFCCC website.

Key issues and proposed solutions (1)

Overarching approach: Large degree of standardization of methodological elements (as reflected in the Appendix)

- Additionality demonstration – analysis of lock-in risk
- Additionality demonstration – investment analysis
  (since applicability conditions ensure that no financial incentives exist)
- Baseline setting: global best available technology (BAT) emission factor based
- Determination of a conservative BAU scenario
- Comparison of BAT and conservative BAU emission factor
- Project emissions: Emission factors for steam and inputs in tertiary abatement systems
- Leakage quantification (default value)

Key issues and proposed solutions (2)

Applicability conditions

- Three distinct project types considered: (i) Introduction; (ii) Restart; (iii) Enhancement of N_2O abatement → activities need to clearly specify the project type

Additionality demonstration

- Regulatory analysis (project-specific)
- Common practice analysis tool be used with Approach A (project-specific)
- Investment analysis (demonstrated at the methodology level)
- Lock-in analysis (demonstrated at the methodology level)

Key issues and proposed solutions (3)

- **Baseline emissions**
  - BE = (production capped at maximum from last 5 years) x (BAT emission factor) x (downward adjustment)
  - Extensive data analysis based on JI projects at 27 production lines and CDM projects at 120 production lines
    - BAT: Identification of the best available technology (BAT) without secondary or tertiary abatement
    - Conservative BAU: Use of “bootstrap analysis” to identify values for BAU emissions adjusted for uncertainty at a 95% confidence level
  - Annual increase in downward adjustment: Different values, depending on abatement performance

Key issues and proposed solutions (4)

- **Project emissions:**
  - Remaining N_2O emissions from plant: Mass flow tool with technical specifications
  - Tertiary abatement (fossil fuels, steam, electricity, other inputs)

- **Monitoring**
  - Continuous monitoring, rather than exclusion of certain intervals
  - Approach for dealing with gaps in monitored values

- **Leakage emissions**
  - Upstream emissions related to abatement systems
  - Considered due to requirements in the Leakage standard

Key issues and proposed solutions (5)

Key comments received (second call for public input)

- Enhance clarity on applicability conditions
- Allow for more project types
  - Optimization of existing abatement systems
  - New plants
- Amend applicability conditions to not require abatement systems to be newly produced
- Legal requirements to be re-checked only at renewal of crediting period
- Change the cap on production considered for crediting to nameplate capacity
- Use of higher baseline emission factors
- Use of monitored baseline emission factors
- Lower downward adjustments
- More flexible treatment of data gaps in monitoring

MEP013 to:

- Finalize the methodology, and
- Recommend for adoption by Supervisory Body (in accordance with procedure)