



CLIMATE  
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RESERVE

## Nitric Acid Production Project Protocol V3.0

### Protocol Summary

#### Project Definition

The installation of nitrous oxide (N<sub>2</sub>O) abatement technology at an existing, upgraded and/or relocated nitric acid plant (NAP) that results in the reduction of N<sub>2</sub>O emissions that would otherwise have been vented to the atmosphere. A facility may contain more than one project if it contains multiple nitric acid plants.

#### Includes:

- A secondary catalyst project that installs a dedicated N<sub>2</sub>O abatement catalyst inside or immediately below the ammonia oxidation reactor
- A tertiary catalyst project that installs a dedicated N<sub>2</sub>O abatement catalyst in the tail gas leaving the absorption tower
- A combined secondary and tertiary catalyst project where a tertiary abatement system is installed in addition to an existing secondary catalyst project.
- The N<sub>2</sub>O abatement technology can either be catalytic decomposition or a non-selective catalytic reduction (NSCR) nitrogen oxide (NO<sub>x</sub>) abatement technology used to reduce N<sub>2</sub>O along with NO<sub>x</sub>
- Projects located at a NAP with an existing NSCR unit may install a new tertiary catalyst in the tail gas leaving the NSCR unit; the unit must remain in operation throughout the life of the project

#### Project Eligibility Requirements

**Location:** Project must be within the U.S. and its territories.

**Start Date:** Defined as the completion of the initial startup testing of the abatement catalyst system after the date on which production first commences after the installation of the abatement catalyst system. Combined secondary and tertiary projects retain the original project start date. Project must be submitted no more than twelve months after the project start date.

**Crediting Period:** The crediting period is approximately ten years in length, aligning with the end of the last full campaign that begins in the tenth year of reporting, or until the project activity is required by law. Project may be eligible for a total of 3, 10-year crediting period.

**Performance Standard Test:** By installing one of the following N<sub>2</sub>O abatement systems, the project passes the Performance Standard Test:

- A secondary N<sub>2</sub>O abatement catalyst
- A tertiary N<sub>2</sub>O abatement catalyst, including catalytic decomposition or NSCR
- A combined secondary and tertiary N<sub>2</sub>O abatement catalyst

**Legal Requirement Test:** Project developer attests that there are no legal requirements for abatement of N<sub>2</sub>O at the project site and must sign the Attestation of Voluntary Implementation each verification period

**Regulatory Compliance:** Project activities and project NAP must be in material compliance with all applicable federal, state and local regulations. Project developer must sign the Attestation of Regulatory Compliance for each verification period.

**Social and Environmental Safeguards:** Project developers must demonstrate that the project does not give rise to social or environmental harm.

#### Other Eligibility Requirements

- Clear ownership of greenhouse gas (GHG) emissions reductions must be established
- Project must not be registered with any other registry for the same vintages of reductions
- Project must conduct proper accounting and monitoring

**Reporting and Verification Schedule:** A reporting period may exceed twelve months in length when a single campaign exceeds twelve months; the reporting period may match the length of the campaign. Sub-annual and sub-campaign reporting and verification are allowed.

*Important Note: This is a summary of the protocol. Please read the full protocol for a complete description of project requirements.*