



U.S. Nitric Acid Production Project Data Report

The Project Data Report (PDR) Template must be completed for each verification period. This template is only intended as a guide and provides the minimum required information to be reported. This template is designed for use with the Nitric Acid Production Protocol V2.2 and V3.0. The project developer has the option to include additional information at their discretion.

Please note that this document will be made publicly available once the project has registered credits for the verification period. If there is proprietary information, please provide a redacted version for publication and a non-redacted version for internal review. Please contact the Reserve to discuss what information may be allowed to be redacted.

Account Holder	East Dubuque Nitrogen Fertilizer, LLC
Project ID and Name	CAR 1027, Rentech Nitrogen LLC, Nitric Acid Plant 2
Cooperative/Aggregate ID (if applicable)	N/A
Current Reporting Period Dates	09/26/2024 - 09/07/2025
Protocol Version	Nitric Acid Production V3.0
Claimed CRTs by Vintage	2024 - 29,747 2025 - 79,332
Date Submitted	3/20/2026

1 Introduction

Provide a general description of the project, including location, baseline scenario, project activity, etc.

East Dubuque Nitrogen Fertilizers, LLC (EDNF) produces nitrogen fertilizers for commercial sales. The purpose of this project is to reduce nitrous oxide (N₂O) emissions from the EDNF No. 2 Nitric Acid Plant (NAP) in East Dubuque, Illinois. The project involves installing a new catalyst—one not previously in place at NAP No. 2—in the tail gas stream exiting the absorption tower. A secondary catalyst was placed directly beneath the primary Platinum/Rhodium catalyst within the Ammonia Oxidation Reactor at NAP 2. This setup targets the reduction of N₂O emissions that would otherwise be released into the atmosphere.

2 Project Definition

a Project Definition

Describe the abatement technology used, and confirm that the following scenarios do not apply to the project:

- *NAPs that are restarted any time after December 2, 2007, after being out of operation for a period of 24 months or longer*
- *New NAPs constructed after December 2, 2009, with the exception of new NAPs for which a permit application for construction was submitted to the appropriate government authorities prior to December 2, 2009*
- *Secondary catalyst projects at existing NAPs where NSCR is currently operating*
- *Secondary catalyst projects at existing NAPs that used NSCR technology for NO_x abatement at any point since December 2, 2007*

A secondary catalyst was installed within the Ammonia Oxidation Reactor. The above scenarios do not apply to the project.

b Project Developer

List the entities which have any amount of legal control over the project boundary and identify the mechanism through which the Account Holder has legal authority to implement the project. In addition, please state which entity will be designated as the project developer and will sign the Attestation of Title. If the Account Holder is not the entity listed on the facility's operating permit, explain how they obtain the right to operate the project on the facility's behalf. which entity will be designated as the project developer and will sign the Attestation of Title. If there are no technical consultants or other parties with material interest, state "N/A."

Current Project Participants include the Project Developer, East Dubuque Nitrogen Fertilizers, LLC (EDNF) and the Technical Consultant, ClimeCo LLC

EDNF is the exclusive owner of the project and the sole party with the right to make management and operational decisions. EDNF serves as the owner and operator of the secondary abatement catalyst system, personal property, equipment, fixtures and appurtenances comprising the Project.

Technical Consultant(s): ClimeCo LLC

Other Parties with Material Interest (entity name and role): CVR Energy, parent company to EDNF

Entity Signing Attestation of Title: East Dubuque Nitrogen Fertilizers, LLC

Additional Information: N/A

3 Project Eligibility

a Project Location

Provide the project location.

East Dubuque, Illinois, USA

b Project Start Date

For secondary projects, the project start date is the date on which production first commences after the installation of a secondary catalyst. Confirm the start date is either the start of a campaign or the commencement of nitric acid production after an outage. For tertiary projects, the project start date is the date on which production first commences after installation of a tertiary catalyst. Projects that switch abatement technologies or installs an additional system for a combined secondary and tertiary catalyst project the start date should correspond with the original start date from the initial listing.

Please provide the start date for the project and describe the documentation used to demonstrate the start date as described above. Provide the duration of the project startup testing, if applicable.

Project was listed on 05/14/2014 and the project reporting start date was 12/28/2013.

c Project Crediting Period

Due to the nature of campaigns, a crediting period for nitric acid production projects is approximately ten years and aligns with the end of the last full campaign that begins in the tenth year of reporting. If the project developer anticipates a crediting period greater than 11 years in total, provide the date in which the project received Reserve approval prior to the initiation of the final campaign.

Provide the crediting period below using an approximate date for the crediting period end date.

09/26/2024 to approximately 09/25/2034

Date of Reserve Approval if applicable:

d Additionality

i Performance Standard Test

The Performance Standard Test for Nitric Acid Production projects is based on an assessment of common practice of use of emission control technologies in NAPs to reduce N₂O emissions. Check the box below for how the project meets the Performance Standard Test.

☒ Secondary catalyst

☐ Tertiary catalyst, including catalytic decomposition or NSCR

☐ Combined secondary and tertiary catalyst

ii Legal Requirement Test

Attest that the project activities are not legally required. Identify any federal, provincial, or local regulations or legally binding mandates that are relevant to the project.

We have confirmed that there are currently no laws requiring the abatement of N₂O at the plant. In addition, EDNF monitors any change in regulations that may affect eligibility. EDNF's Title V permit renewal request has been submitted. ClimeCo has uploaded the Attestation of Voluntary Implementation to the Reserve.

e Social and Environmental Safeguards

i Social Safeguards

Confirm below that the project is in material compliance with all labor and safety laws for the verification period.

There have been no instances of non-compliance with labor or safety laws within the nitric acid plant that relate to the project for the verification period.

ii Environmental Safeguards

Confirm below that the project is in material compliance with all environmental regulations in the verification period, and how the project is designed and implemented in such a way to mitigate potential releases of pollutants that may cause degradation of the quality of soil, air, and surface and groundwater.

The project owner retains a technical consultant (ClimeCo) to monitor state and federal legislation, as well as the publicly available information on non-compliance events posted on the US EPA databases. There have been no instances of non-compliance within the nitric acid plant that are caused by the project or fall within the project boundary during the reporting period.

f Regulatory Compliance

Provide the federal, state, and/or local regulatory agencies with jurisdiction over the project boundary. Disclose any instances of non-compliance during the verification period. Describe how the project intends to monitor for compliance during future reporting periods.

The US EPA and OSHA have jurisdiction over the project boundary. A survey of all regulatory violations incurred by the Site within the reporting period dates has been conducted as part of verification activity and submitted for the verifier's review. There are no regulatory violations for this reporting period that have been caused by project activity.

4 GHG Assessment Boundary

a GHG Assessment Boundary

The table below includes only the SSRs that are included in the project quantification. For all SSRs considered in the GHG Assessment Boundary (included and excluded GHGs and their justification) refer to Tables 4.1 and 4.2 in the Protocol.

Secondary Catalyst Projects

SSR	Source Description	Gas	Baseline (B) or Project (P)
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1 – Nitric Acid Production	Nitric acid process unit (burner inlet to stack)	N ₂ O from reaction byproduct	B, P
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Tertiary Catalyst Projects

SSR	Source Description	Gas	Baseline (B) or Project (P)
1 – Nitric Acid Production	Nitric acid process unit (burner inlet to stack)	N ₂ O from reaction byproduct	B, P
4 - Ammonia Used to Operate SCR De-NOX Unit (included if ammonia is an input to the N ₂ O destruction facility)	GHG emissions from production of ammonia used in tertiary abatement for N ₂ O destruction	CO ₂ , CH ₄ , N ₂ O	B (if applicable), P
5 - Hydrocarbon Input	Hydrocarbon used as reducing agent and/or reheating the tail gas	CO ₂ and/or CH ₄	P
7 - External Energy to Reheat Tail Gas	May be used to reheat the tail gas before entering the tertiary catalyst or NSCR	CO ₂ , CH ₄ , N ₂ O	P

Combined Secondary and Tertiary Catalyst Projects

SSR	Source Description	Gas	Baseline (B) or Project (P)
1 – Nitric Acid Production	Nitric acid process unit (burner inlet to stack)	N ₂ O from reaction byproduct	B, P
4 - Ammonia Used to Operate SCR De-NOX Unit (included if ammonia is an input to the N ₂ O destruction facility)	GHG emissions from production of ammonia used in tertiary abatement for N ₂ O destruction	CO ₂ , CH ₄ , N ₂ O	B (if applicable), P
5 - Hydrocarbon Input	Hydrocarbon used as reducing agent and/or reheating the tail gas	CO ₂ and/or CH ₄	P

7 - External Energy to Reheat Tail Gas	May be used to reheat the tail gas before entering the tertiary catalyst or NSCR	CO ₂ , CH ₄ , N ₂ O	P
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5 Quantifying GHG Emission Reductions

a Quantifying Baseline Emissions

i Summary of Baseline Quantification

Provide the following information depending on the project scenario. Provide the following information depending on the project scenario. Leave the other section blank if not applicable.

Secondary Catalyst Projects

Allowable Operating Conditions:

Oxidation temperature range: 648.9 - 843.3 Celcius

Oxidation pressure range: 1.86 - 3.38 Bar

Maximum ammonia-to-air ratio input into the AOR: 12.0%

Select how these allowable ranges were determined:

- ☐ Option (a): The best available historical data for the operating range of temperature and pressure, and maximum ammonia-to-air ratio from the previous five campaigns.
- ☐ Option (b): The best available historical data from less than five campaigns. This option is allowable only if limited historical data are available (e.g., an upgraded or relocated NAP that has not been operating for at least five campaigns).
- ☒ Option (c) Specified range of temperature and pressure found in the operating manual²⁰ for the existing equipment, and maximum ammonia-to-air ratio as specified by the ammonia oxidation catalyst manufacturer or the operating manual for the NAP equipment if guidance from the ammonia oxidation catalyst manufacturer is not available. This option is only allowable if no historical data are available.

Vintage: 2024	Vintage: 2025
HNO ₃ , MAX, scaled: 12,562 tHNO ₃	HNO ₃ , MAX, scaled: 33,503 tHNO ₃
Baseline Emission Factor: 0.01215 tN ₂ O/tHNO ₃	Baseline Emission Factor: 0.01215 tN ₂ O/tHNO ₃
Total N ₂ O Emissions during the Baseline Sampling Period: tN ₂ O	Total N ₂ O Emissions during the Baseline Sampling Period: tN ₂ O
Baseline Emissions: 36,086 tCO ₂ e	Baseline Emissions: 96,240 tCO ₂ e

Tertiary Catalyst Projects

Allowable Operating Conditions:

Oxidation temperature range:

Oxidation pressure range:

Maximum ammonia-to-air ratio input into the AOR:

Select how these allowable ranges were determined:

- ☐ Option (a): The best available historical data for the operating range of temperature and pressure, and maximum ammonia-to-air ratio from the previous five campaigns.
- ☐ Option (b): The best available historical data from less than five campaigns. This option is allowable only if limited historical data are available (e.g., an upgraded or relocated NAP that has not been operating for at least five campaigns).
- ☐ Option (c) Specified range of temperature and pressure found in the operating manual²⁰ for the existing equipment, and maximum ammonia-to-air ratio as specified by the ammonia oxidation catalyst manufacturer or the operating manual for the NAP equipment if guidance from the ammonia oxidation catalyst manufacturer is not available. This option is only allowable if no historical data are available.

Vintage:	Vintage:
HNO ₃ ,MAX, scaled: tHNO ₃	HNO ₃ ,MAX, scaled: tHNO ₃
Baseline Emission Factor: tN ₂ O/tHNO ₃	Baseline Emission Factor: tN ₂ O/tHNO ₃
Total N ₂ O Emissions during the Baseline Sampling Period: tN ₂ O	Total N ₂ O Emissions during the Baseline Sampling Period: tN ₂ O
Baseline Emissions: tCO _{2e}	Baseline Emissions: tCO _{2e}

Combined Secondary and Tertiary Catalyst Projects**Allowable Operating Conditions:**

Oxidation temperature range:

Oxidation pressure range:

Maximum ammonia-to-air ratio input into the AOR:

Select how these allowable ranges were determined:

- ☐ Option (a): The best available historical data for the operating range of temperature and pressure, and maximum ammonia-to-air ratio from the previous five campaigns.
- ☐ Option (b): The best available historical data from less than five campaigns. This option is allowable only if limited historical data are available (e.g., an upgraded or relocated NAP that has not been operating for at least five campaigns).
- ☐ Option (c) Specified range of temperature and pressure found in the operating manual²⁰ for

the existing equipment, and maximum ammonia-to-air ratio as specified by the ammonia oxidation catalyst manufacturer or the operating manual for the NAP equipment if guidance from the ammonia oxidation catalyst manufacturer is not available. This option is only allowable if no historical data are available.

Vintage:	Vintage:
$\text{HNO}_{3,\text{RP, scaled}} \cdot \text{tHNO}_3$	$\text{HNO}_{3,\text{RP, scaled}} \cdot \text{tHNO}_3$
$\text{EF}_{\text{BL}} \cdot \text{tN}_2\text{O}/\text{tHNO}_3$	$\text{EF}_{\text{BL}} \cdot \text{tN}_2\text{O}/\text{tHNO}_3$
$\text{HNO}_{3,\text{NEW}} \cdot \text{tHNO}_3$	$\text{HNO}_{3,\text{NEW}} \cdot \text{tHNO}_3$
$\text{EF}_{\text{NEW}} \cdot \text{tN}_2\text{O}/\text{tHNO}_3$	$\text{EF}_{\text{NEW}} \cdot \text{tN}_2\text{O}/\text{tHNO}_3$
Baseline Emissions: tCO_2e	Baseline Emissions: tCO_2e

b Quantifying Project Emissions

i Summary of Project Emissions

Complete the table below depending on the project scenario. Leave the other table blank if not applicable.

Secondary Catalyst Projects:

Vintage: 2024	Vintage: 2025
Total N_2O emissions in the campaign: 6,339 tN_2O	Total N_2O emissions in the campaign: 16,908 tN_2O
Project Emissions: 6,339 tCO_2e	Project Emissions: 16,908 tCO_2e

Tertiary Catalyst Projects:

Vintage:	Vintage:
Emissions from the N_2O in the tail gas during the reporting period: tCO_2	Emissions from the N_2O in the tail gas during the reporting period: tCO_2
Emissions from the ammonia input used to operate the tertiary catalyst facility during the reporting period: tCO_2	Emissions from the ammonia input used to operate the tertiary catalyst facility during the reporting period: tCO_2
Emissions from the use of hydrocarbons as a reducing agent or to reheat tail gas during the reporting period: tCO_2	Emissions from the use of hydrocarbons as a reducing agent or to reheat tail gas during the reporting period: tCO_2
Emissions from the external energy used to reheat the tail gas during the reporting period: tCO_2	Emissions from the external energy used to reheat the tail gas during the reporting period: tCO_2
Project Emissions: tCO_2e	Project Emissions: tCO_2e

Combined Secondary and Tertiary Catalyst Projects – Approach 1:

Vintage:	Vintage:
Emissions from the N_2O in the tail gas during the reporting period: tCO_2	Emissions from the N_2O in the tail gas during the reporting period: tCO_2

Emissions from the ammonia input used to operate the tertiary catalyst facility during the reporting period: tCO ₂	Emissions from the ammonia input used to operate the tertiary catalyst facility during the reporting period: tCO ₂
Emissions from the use of hydrocarbons as a reducing agent or to reheat tail gas during the reporting period: tCO ₂	Emissions from the use of hydrocarbons as a reducing agent or to reheat tail gas during the reporting period: tCO ₂
Emissions from the external energy used to reheat the tail gas during the reporting period: tCO ₂	Emissions from the external energy used to reheat the tail gas during the reporting period: tCO ₂
Project Emissions: tCO _{2e}	Project Emissions: tCO _{2e}

c Final CRT Summary

Summarize the final result for determining the net GHG Reductions by vintage.

Vintage: 2024	Vintage: 2025
Baseline Emissions: 36,086 tCO _{2e}	Baseline Emissions: 96,240 tCO _{2e}
Project Emissions: 6,339 tCO _{2e}	Project Emissions: 16,908 tCO _{2e}
Total GHG Emission Reductions: 29,747 tCO _{2e}	Total GHG Emission Reductions: 79,332 tCO _{2e}

6 Variance Request

If a variance was requested during the verification period, provide a brief description of the rule/requirement in the protocol in question, the conditions of the determination, and the date of the variance request and determination.

Date of Variance Request:

Protocol Section and Rule/Requirement:

Description of how the project did not meet the above requirements:

Date Reserve Issued Determination:

Variance Conditions:

7 Project Documentation

The following documents are required to be submitted for project registration. In cases where there is proprietary information, please provide unredacted and redacted versions. If additional documents were submitted, please include the document title and its associated file name.

Document	File Name
Project Diagram	EDNF NAP2 Drawing.pdf
Attestation of Title	CAR1027 Attestation of Title.pdf

Attestation of Voluntary Implementation	CAR1027 Attestation of Voluntary Implementation.pdf
Attestation of Regulatory Compliance	CAR1027 Attestation of Regulatory Compliance RP12.pdf
Monitoring Plan	EDNF NAP2 CAR1027 Monitoring Plan v1.8.docx
Project Contributions to the U.N. Sustainable Development Goals Report Tool	2025-SDG-REPORTING-TOOL-CAR1027.pdf
Project Data Report (this document)	CAR1027 Project Data Report RP12.docx
Variance Request (if applicable)	