NEW YORK STATE | Department of Environmental Conservation

KATHY HOCHUL
Governor

AMANDA LEFTON
Commissioner

June 17, 2026

Mr. Michael Martucci
Regional Administrator
U.S. Environmental Protection Agency, Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866

Dear Regional Administrator Martucci:

On behalf of the Governor of the State of New York, I am submitting for approval by the U.S. Environmental Protection Agency (EPA) a Source-Specific State Implementation Plan Revision (SSSR) for Beaver Falls, LLC in Croghan, New York.

Title 6 of the New York Codes, Rules, and Regulations (NYCRR) contains several regulations that define Reasonably Available Control Technology (RACT) for certain categories of stationary sources. The Air Title V Permit for Beaver Falls that was issued on October 23, 2025, includes conditions that establish case-by-case RACT limits for NOx emissions.

A public notice specifying that process specific RACT determinations would be submitted to EPA as a SSSR was published in the Environmental Notice Bulletin (ENB) on December 31, 2024. A public comment period occurred from December 31, 2024, to January 31, 2025. No comments were received.

The following documents, including those that were used by New York State Department of Environmental Conservation (NYSDEC) to evaluate and approve RACT emission limits, are included in this proposed SSSR.

1. "Source Specific State Implementation Plan Revision: Beaver Falls LLC, June 2026"
2. Appendix A: Technical Analyses
3. Appendix B: Case-by-case Permit Conditions
4. Appendix C: Public Notice Documents

If you have any questions or concerns, please contact Daniel Goss, Assistant Engineer, Division of Air Resources, Bureau of Air Quality Planning, SIP Planning Section at (518) 402-8396.

Sincerely,

Margaret LaFarr
Director, Division of Air Resources

Enclosures

c: R. Ruvo, EPA Region 2
R. Bielawa
D. Goss

NEW YORK STATE | Department of Environmental Conservation

# Source Specific
# State Implementation Plan Revision

## BEAVER FALLS LLC

## JUNE 2026

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## Acronyms and Abbreviations

| | |
|---|---|
| CAA | Clean Air Act |
| DAR | Division of Air Resources |
| DEC | New York State Department of Environmental Conservation |
| EPA | United States Environmental Protection Agency |
| NAAQS | National Ambient Air Quality Standards |
| $NO_X$ | Oxides of Nitrogen |
| NYCRR | New York Codes, Rules, and Regulations |
| RACT | Reasonably Available Control Technology |
| SIP | State Implementation Plan |
| SSSR | Source Specific SIP Revision |
| VOCs | Volatile Organic Compounds |

## Introduction

The United States Environmental Protection Agency (EPA) defines Reasonably Available Control Technology (RACT) as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

Title 6 of the New York Codes, Rules, and Regulations (NYCRR) contains several regulations that define Reasonably Available Control Technology (RACT) for certain categories of stationary sources in New York. These regulations seek emissions reductions of nitrogen oxides ($NO_x$) and/or volatile organic compounds (VOCs) to help attain and/or maintain the 8-hour ozone National Ambient Air Quality Standards (NAAQS).

Depending upon the relevant RACT regulation, a source that is required to implement RACT must meet a presumptive RACT limit, meet an alternate limit determined from an approved technical analysis if reaching a presumptive RACT limit is technically or economically infeasible, or meet an approved case-by-case RACT limit for sources which do not have a presumptive RACT limit established in regulation. Individual source specific RACT determinations that are included in a facility's operating permit must be submitted to EPA as a revision to the New York State Implementation Plan (SIP) to satisfy the $NO_x$ and/or VOC RACT requirements under sections 182 and 184 of the Clean Air Act (CAA).

The New York State Department of Environmental Conservation's (DEC's) DAR-20 guidance, titled "Economic and Technical Analysis for Reasonably Available Control Technology (RACT)," provides procedures for the economic and technical feasibility analysis that needs to be used to evaluate source-specific RACT determinations and to determine appropriate RACT emission limits. This analysis must also be completed at each renewal of the emission source owner's permit. The re-evaluation must contain the latest control technologies and strategies available for review and allow for an inflation-adjusted economic threshold.

## Facility Description

DEC has prepared and issued a permit renewal for an existing permitted facility that operates three (3) 63 MMBtu/hr natural gas/No.2 oil boilers, seven (7) No.2 oil emergency generators, two (2) 1.4 MW natural gas cogeneration units, a dual use generator (emergency power back up engine) and nine (9) exempt boilers and a water heater. The Littauer Building has three (3) 4.3 MMBTU/hr exempt dual fuel boilers (No. 2 fuel oil/Natural Gas) and a water heater. The Sloman Building has one (1) natural gas 0.9 MMBTU/hour exempt boiler.

This facility is subject to the following Subpart 227-2 Reasonably Available Control Technology (RACT). Justification for this compliance option is based on the June 20, 2007, updated on May 30, 2017, and revised on October 12, 2022, NOx RACT variance request for the cogeneration units under Emission Unit U-GENCP. Based on the variance request, DEC approved an alternative NOx RACT emission limit of 6.5 grams per brake horsepower-hour (g/bhp-hr) for these cogeneration units. Based on stack test results, the limit of 6.5 g/bhp-hr was established on June 26, 2009, and affirmed by this current permit. The NOx RACT determination will be submitted to EPA for approval as a source specific revision to the New York State Implementation Plan (SIP).

Mid-size boilers, (emission sources 00CP1, 00CP2, 00CP3) burning oil/gas subject to section 227-2.4(c)(1)(ii) that meet the NOx emission limit of 0.08 pounds NOx per million Btu on or after July 1, 2014, may commit to burning a cleaner fuel between May 1st and September 30th of each year. Fuel switching must result in quantifiable annual NOx emissions equal to or less than the NOx emissions expected if the emission source complied with the applicable presumptive RACT emission limits set forth in section 227-2.4(c)(1)(ii) of 0.08 pounds NOx per million Btu.

The NOx emissions for the mid-size boilers are capped at 21.4 tons per year (tpy), and net emission increase from addition of the cogeneration system and the assist engine generator is capped at 22.5 tpy on a 12-month rolling basis to avoid the New Source Review applicability (6NYCRR Subpart 231-2). This engine also has a limit to operate no more than 500 hrs per year. This is a major facility since the facility wide NOx emissions are greater than 25 tons/yr and is subject to Part 201-6 requirements.

## Facility Air Permit

The RACT variance has been incorporated into the facility's Title V Permit. The relevant permit conditions are included in this document in Appendix B. The full Title V permit is available at:

PERMIT

The Permit Review Report can be found at:

PRR

## Appendix A: Technical Analyses

NEP
BeaverFalls LLC

Beaver Falls, LLC
9644 Main Street
Beaver Falls, NY 13305

**February 15, 2024**

**NYSDEC Regional Permit Administrator**
Region 6 Headquarters
Division of Environmental Permits
State Office Building, 317 Washington Street
Watertown, NY 13601-3787

RE: NOx RACT Analysis
Beaver Falls, LLC (Facility ID 6232000018)
Operating Permit Number 6-2320-00018

To whom it may concern:

Beaver Falls LLC is submitting the attached NOx RACT case-by-case analysis in accordance with 6 NYCRR 227-2.4(e)(2) as part of the 2022 renewal application for the Title V Permit. The analysis was submitted via e-mail to RAPCE.R6@dec.ny.gov.

Should you have any questions pertaining to this matter, please call Michael Mueller, Plant Manager at (315) 346-9121 or via e-mail at Michael.Mueller@naes.com or contact John Pandolph at John.Pandolph@naes.com.

Sincerely,

Jimmy Ladas
Responsible Official
Asset Manager

Cc:

Michael Mueller, Beaver Falls LLC
Catherine Tubridy, NAES Corporation
John Pandolph, NAES Corporation
Janelle Hagelin, NYSDEC Region 6

# NOx RACT Analysis
# Beaver Falls LLC
# Operating Permit Number 6-2320-00018
# Site ID: 6232000018
# Federal Plant Code: 10617

## February 15, 2024

## SUBMITTED TO:

**NYSDEC Regional Permit Administrator**
**Region 6 Headquarters**
**Division of Environmental Permits**
**State Office Building, 317 Washington Street**
**Watertown, NY 13601-3787**

## PREPARED BY:


***Energy People Making Energy Facilities Work - Better***
**13 Reads Way, Suite 100**
**New Castle, DE 19720**

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# 1.0 INTRODUCTION

## 1.1 Facility Information

Beaver Falls LLC (Beaver Falls) owns and operates a natural gas combined cycle electric generation facility in Beaver Falls, New York

The facility consists of a Siemens V64.3 gas turbine, a heat recovery steam generator with duct burners, and air pollution control equipment. Also located at this facility are two emergency diesel generators and an auxiliary boiler equipped with flue gas recirculation for NOx control.

Beaver Falls is located in Beaver Falls, Lewis County, New York a region classified as attainment for the 2008 8-hour ozone NAAQS and the 2015 8-hour ozone NAAQS. The area is in attainment or is unclassifiable for all other criteria pollutants, including particulate matter 10 microns and less in diameter ($PM_{10}$), particulate matter 2.5 microns and less in diameter ($PM_{2.5}$), sulfur dioxide ($SO_2$), $NO_2$, carbon monoxide (CO), and lead (Pb). New York is part of the Northeast Ozone Transport Region and is treated as a moderate nonattainment area with respect to the 2015 8-hour ozone standard with VOC and $NO_x$ as ozone precursors.

## 1.2 Permit Application Preparer

This permit application was prepared by Mr. John Pandolph of NAES Corporation. If there are technical questions regarding this application, please contact:


**Name:** Mr. John Pandolph
**Company:** NAES Corporation
**Telephone:** (281) 546-1630
**E-Mail:** John.Pandolph@naes.com


# 2.0 PERMIT APPLICATION DESCRIPTION

Title 6 of the New York Code of Rules and Regulations (6 NYCRR), Subpart 227-2 establishes Reasonably Available Control Technology (RACT) requirements for major sources of oxides of nitrogen ($NO_X$) emissions, including boilers with a maximum heat input capacity of one million British thermal units per hour (MMBtu/hr) or greater, combustion turbines with a maximum heat input capacity of 10 MMBtu/hr or greater, stationary internal combustion engines having a maximum mechanical output rating of 400 brake horsepower or greater (and located outside a severe ozone nonattainment area), and other miscellaneous combustion installations.

This analysis is intended to establish that the existing emission rates for the combustion turbine and the auxiliary boiler are the lowest emission limits that these sources are capable

of meeting by application of control technology that is reasonably available, considering technological and economic feasibility.

### 2.1 NOx RACT Requirements – Combustion Turbine

As noted above, Beaver Falls currently operates a combined cycle combustion turbine. Pursuant to 6 NYCRR 227-2.4(e)(2), the owner or operator must submit a case-by-case RACT analysis upon the submission of a new or renewal application for a Title V permit. For facilities that have a duct burner, such as Beaver Falls, compliance will be based on the combination of the turbine and the duct burner when both fire and the turbine alone when there is no duct-firing. RACT is defined in 6 NYCRR Part 200 as the lowest emission limit that a particular source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility.

In accordance with §227-2.4(g), the owner or operator of a major facility of NOX that contains an emission source that is not specifically addressed in §227-2.4 and is of an emission source that is not regulated under Part 214, 216, 219, 220, or 224 and which has an emission rate of at least three (3) pounds per hour and actual emissions in the absence of control equipment of at least fifteen (15) pounds per day must comply with the case-by-case RACT determination and submit a case-by-case RACT analysis. In accordance §227-2.5(c), the owner or operator of any emission source which must submit a case-by-case RACT analysis shall include the following elements:

- the available NOx control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies; and

- the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology.

Economic or technical feasibility must be demonstrated through an analysis that includes, at a minimum, an evaluation of the use of fuel switching, the use of a system averaging plan, and implementation of available control technologies.

This RACT analysis has been completed for the purpose of evaluating the technical and economic feasibility of the implementation of NOx controls such that compliance with the corresponding presumptive RACT limits is achieved. Alternatively, if compliance with the presumptive RACT limits is not feasible, the analysis is to identify a lesser degree of control that can be established as RACT.

#### 2.1.1 NOx RACT Technical Feasibility – Combustion Turbine

The following add-on air pollution control technologies and strategies were evaluated for NOx reduction:

- System averaging
- Fuel switching
- Selective catalytic reduction (SCR)
- Selective non-catalytic reduction (SNCR)
- Flue gas recirculation (FGR)

#### 2.1.1.1 System Averaging

In accordance with §227-2.5(c), Beaver Falls is required to consider implementing system averaging for the purpose of demonstrating compliance with the NOx RACT requirements. System averaging is typically utilized when multiple combustion sources at a facility are subject to presumptive RACT limits, with some combustion sources having NOx emission levels less than the corresponding limits and some sources having NOx emission levels that are greater than corresponding RACT limits.

Beaver Falls has an auxiliary boiler that is subject to a presumptive RACT limit. Thus, system averaging is not a feasible option for demonstrating compliance for the combustion turbine as no presumptive RACT limit for a combustion turbine is found in §227-2.4.

#### 2.1.1.2 Fuel Switching

In accordance with §227-2.5(c), Beaver Falls is required to evaluate the use of fuel switching for demonstrating compliance with the requirements of 6 NYCRR 227. As indicated in §227-2.5(a), Beaver Falls could commit to burning a cleaner fuel between May 1 and September 30 of each year. However, fuel switching must result in quantifiable annual NOx emissions equal to or less than the NOx emissions expected if the emission source complied with the applicable presumptive RACT emission limits provided in 6 NYCRR 227- 2.4(c).

Beaver Falls is currently permitted to fire natural gas or No.2 fuel oil on the combustion turbine. However, Beaver Falls currently uses only natural gas on the combustion turbine and duct burner unless the supply of natural gas is interrupted and must use fuel oil to meet a dispatch requirement. As such, fuel switching was not evaluated at this time.

#### 2.1.1.3 Selective Catalytic Reduction

SCR is a post-combustion NOx control process that chemically reduces NOx into molecular nitrogen and water vapor in the presence of a catalyst. An ammonia or urea reagent is injected into the ductwork downstream of the combustion unit. The flue gas mixes with the reagent and enters a reactor module containing active metal or ceramic catalyst.

The combustion turbine *(i.e.,* turbine and duct burner) already has an SCR system, this technology was not further evaluated for this source.

#### 2.1.1.4 Selective Non-Catalytic Reduction

Selective Non-Catalytic Reduction (SNCR), like SCR, is a post-combustion NOx control process that chemically reduces NOx into molecular nitrogen and water vapor, however without the use of a catalyst.

Since the combustion turbine is already equipped with an SCR system, this technology was not evaluated for this source.

#### 2.1.1.5 Flue Gas Recirculation

Flue Gas Recirculation (FGR) is the recycling of a portion of the flue gas back to the combustion zone of the furnace, which simultaneously reduces the burner air temperature and the burner oxygen content by dilution, both of which reduce the amount of NOx emitted from the furnace. This NOx reduction technology can be an effective and feasible control option for new burner installations where the FGR is incorporated internally into the burner.

Since the combustion turbine is already equipped with an SCR system, this technology was not evaluated for this source.

## 2.2 NOx RACT REQUIREMENTS - AUXILIARY BOILER

*As* noted above, Beaver Falls currently operates a 95 MMBtu/hr, natural gas only, auxiliary boiler to provide steam for two adjacent steam customers. Pursuant to 6 NYCRR 227-2, the presumptive RACT limit for a "mid-size" gas only boiler 0.05 lb/MMBtu. The boiler stack test conducted when the boiler was installed (Appendix 1) showed actual average emissions of 0.069 lb/MMBtu (highest test result of 0.07 lb/MMBtu), which exceed the current presumptive RACT limit. The boiler tuning report for April 28, 2023, indicates the average emission rate is 0.053 lb/MMBtu with a maximum rate of 0.060 lb/MMBtu.

In accordance with §227-2.5(c), for those sources for which the owner or operator demonstrates that the applicable presumptive RACT emission limit in section 227-2.4 of this Subpart is not economically or technically feasible, the owner or operator can request the department to set a higher, source-specific emission limit.

Economic or technical feasibility must be demonstrated through an analysis that includes, at a minimum, an evaluation of the use of fuel switching the use of a system averaging plan, and implementation of any available control technologies (including, for example, selective catalytic reduction).

This RACT analysis has been completed for the purpose of evaluating the technical and economic feasibility of the implementation of NOx controls such that compliance with the corresponding presumptive RACT limits is achieved. Alternatively, if compliance with the presumptive RACT limits is not feasible, the analysis is to identify a lesser degree of control that can be established as RACT.

### 2.2.1 NOx RACT Technical Feasibility – Auxiliary Boiler

The following add-on air pollution control technologies and strategies were evaluated for NOx reduction:

- System averaging

- Fuel switching
- Selective catalytic reduction (SCR)
- Selective non-catalytic reduction (SNCR)
- Flue gas recirculation (FGR)
- Ultra-Low NOx Burners

#### 2.2.1.1 System Averaging

In accordance with §227-2.5(c), Beaver Falls is required to consider implementing system averaging for the purpose of demonstrating compliance with the NOx RACT requirements. System averaging is typically utilized when multiple combustion sources at a facility are subject to presumptive RACT limits, with some combustion sources having NOx emission levels less than the corresponding limits and some sources having NOx emission levels that are greater than corresponding RACT limits.

Beaver Falls has a combustion turbine that is not subject to a presumptive RACT limit, and further reductions to the current limit are not economically feasible. Thus, system averaging is not a feasible option for demonstrating compliance with the limits contained in §227-2.4(c).

#### 2.2.1.2 Fuel Switching

In accordance with §227-2.5(c), Beaver Falls is required to evaluate the use of fuel switching for demonstrating compliance with the requirements of 6 NYCRR 227. As indicated in §227-2.5(a), Beaver Falls could commit to burning a cleaner fuel between May 1 and September 30 of each year. However, fuel switching must result in quantifiable annual NOx emissions equal to or less than the NOx emissions expected if the emission source complied with the applicable presumptive RACT emission limits provided in 6 NYCRR 227- 2.4(c).

Beaver Falls is currently permitted to fire only natural gas in the auxiliary boiler. As such, fuel switching was not evaluated at this time.

#### 2.2.1.3 Selective Catalytic Reduction

SCR is a post-combustion NOx control process that chemically reduces NOx into molecular nitrogen and water vapor in the presence of a catalyst. An ammonia or urea reagent is injected into the ductwork downstream of the combustion unit. The flue gas mixes with the reagent and enters a reactor module containing active metal or ceramic catalyst.

The 2014 NOx RACT analysis provided an engineering estimate of the cost associated with the installation and operation of an SCR for the auxiliary boiler (Appendix 1). The total capital investment was estimated to be $2,500,629 which when annualized and factoring in annual operating costs equates to $339,570/ton of NOx reduced assuming operation of the boiler at maximum capacity, 8760 hours per year.

#### 2.2.1.4 Selective Non-Catalytic Reduction

SNCR, like SCR, is a post-combustion NOx control process that chemically reduces NOx into molecular nitrogen and water vapor, however without the use of a catalyst.

The 2014 NOx RACT analysis provided an engineering estimate of the cost associated with the installation and operation of an SNCR for the auxiliary boiler (Appendix 1). Total capital costs for the equipment, electrical upgrades, and installation were estimated to be $411,838 which when annualized and factoring in annual operating costs equates to $79,348/ton of NOx reduced assuming operation of the boiler at maximum capacity, 8760 hours per year.

#### 2.2.1.5 Flue Gas Recirculation

Flue Gas Recirculation (FGR) is the recycling of a portion of the flue gas back to the combustion zone of the furnace, which simultaneously reduces the burner air temperature and the burner oxygen content by dilution, both of which reduce the amount of NOx emitted from the furnace. This NOx reduction technology can be an effective and feasible control option for new burner installations where the FGR is incorporated internally into the burner.

The auxiliary boiler is already equipped with FGR designed to re-circulate approximately 5% of the exhaust gas. We obtained quotes from the boiler vendor (in 2014) to supply a new burner assembly and associated equipment to re- circulate approximately 10% of the exhaust gas and obtain a guaranteed emission rate of 0.05 lb/MMBtu. Total capital costs for the equipment, electrical upgrades, and installation were estimated to be $378,376 which when annualized and factoring in annual operating costs equates to $48,653/ton of NOx reduced assuming operation of the boiler at maximum capacity, 8760 hours per year (Appendix 1).

#### 2.2.1.6 Ultra Low NOx Burners

Furnace burners can be replaced and upgraded to ultra-low NOx-type burners that often incorporate internal FGR.

The 2014 NOx RACT analysis provided an engineering estimate of the cost associated with the installation and operation of an Ultra Low NOx burner for the auxiliary boiler (Appendix 1). Total capital costs for the equipment, electrical upgrades, and installation were estimated to be $1,003,855 which when annualized and factoring in annual operating costs equates to $135,480/ton of NOx reduced assuming operation of the boiler at maximum capacity, 8760 hours per year.

### 2.3 NOx RACT Summary

Based on this analysis, the installation of SCR technology on the combined cycle combustion turbine is considered RACT for this source.

Further, the existing FGR system on the auxiliary boiler is considered RACT as any other reductions would not be economically feasible based on cost of NOx per ton ranging from $48,653 to $339,570 (Appendix 1), above the accepted threshold of $6,294 per ton in New York in 2023 dollars.

In light of this discussion, Beaver Falls believes that the facility's existing permit limits certainly constitute RACT. Thus, we proposed to retain the following permit limits as RACT:

- U-00001, Process 101 and 102 - Emissions of NOx while combusting No.2 oil in the gas turbine with or without simultaneous operation of the duct burner on natural gas must not exceed 18 ppmv, dry basis, corrected to 15% $O_2$ on a block hourly average.

- U-00001, Process 103 and 104 - Emissions of NOx while combusting natural gas in the gas turbine with or without simultaneous operation of the duct burner on natural gas must not exceed 9 ppmv, dry basis, corrected to 15% $O_2$ on a block hourly average.

- U-00004 - Emissions of NOx while combusting natural gas in the Auxiliary Boiler shall not exceed 0.07 lbs/MMBtu as shown by stack test.

# Appendix 1

# $NO_X$ RACT Variance Cost

# (DAR 20)

Beaver Falls Title V Renewal
Unit U-0004 Auxiliary Boiler
$NO_X$ RACT Variance Cost

| No. | Item | 2014 Cost Analysis [1] | 2014 Cost Analysis [1] | 2014 Cost Analysis [1] | 2014 Cost Analysis [1] | 2023 Cost Analysis [2] | 2023 Cost Analysis [2] | 2023 Cost Analysis [2] | 2023 Cost Analysis [2] |
|---|---|---|---|---|---|---|---|---|---|
| | | SCR | SCNR | Ultra-Low NOx Burners | Improved FGR and Burners | SCR | SCNR | Ultra-Low NOx Burners | Improved FGR and Burners |
| | CPI Adjusted for 2023 [3] | | | | | 28.7% | 28.7% | 28.7% | 28.7% |
| | | | | | | | J Matthey | AeriNOx | TEL |
| 1) | Cost of Emissions Control Equipment | $1,943,000 | $320,000 | $780,000 | $294,000 | $2,500,629 | $411,838 | $1,003,855 | $378,376 |
| 2) | Capital Recover Factor [4] | 0.117 | 0.117 | 0.117 | 0.117 | 0.117 | 0.117 | 0.117 | 0.117 |
| 3) | Annual Equipment Costs | $228,224 | $37,587 | $91,619 | $34,533 | $293,723 | $48,374 | $117,912 | $44,444 |
| 4) | Annual Operating Costs | $203,400 | $197,300 | $75,800 | $11,700 | $261,775 | $253,924 | $97,554 | $15,058 |
| 5) | Total Costs | $2,374,624 | $554,887 | $947,419 | $340,233 | $3,056,127 | $714,136 | $1,219,322 | $437,878 |
| 6) | Reduction | | | | | | | | |
| A. | NOx Potential to Emit [5] | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| B. | Percent Reduction | 31% | 31% | 31% | 31% | 31% | 31% | 31% | 31% |
| C. | Tons Reduced [6] | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | Capital Cost of controls per ton | $263,847 | $61,654 | $105,269 | $37,804 | $339,570 | $79,348 | $135,480 | $48,653 |

[1] Based on the submitted 2014 $NO_X$ RACT plan

[2] 2022 Cost Estimate adjusted based on the Consumer Price (CPI) Index difference from August 2013 to September 2022

[3] CPI increase

[4] The Capital Recovery Factor (CRF) = I(1+I)n/(1+I)n 1, where I = annual interest rate (10%) and n = equipment life in years (n=10)

[5] NOx PTE based on stack test results (2014) showing 0.07 lb/MMBtu NOx

[6] NOx reduction is based on Presumptive NOx rate of 0.05 lb/MMBtu * 95 MMBtu/hr * 8760 hr / 2000 lb/ton = 20 tons emitted

| Capital Recover Factor | | |
|---|---|---|
| Annual interest rate - Business | 10.0% | % |
| Equipment Parts Life | 20 | Years |

## Appendix B: Case-by-case Permit Conditions

period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 29.5:**
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 29.6:**
The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: U-00001
Process: 102

Emission Unit: U-00001
Process: 104

Regulated Contaminant(s):
CAS No: 000630-08-0 CARBON MONOXIDE

**Item 29.7:**
Compliance Certification shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
PSD AVOIDANCE CONCENTRATION EMISSION LIMIT FOR CO EMISSIONS FROM THE COMBUSTION TURBINE AND DUCT BURNER. THIS LIMIT IS APPLICABLE TO THE ABOVE PROCESSES.

Manufacturer Name/Model Number: Thermo Scientific Model 48i
Parameter Monitored: CARBON MONOXIDE
Upper Permit Limit: 18.0 parts per million by volume
(dry, corrected to 15% O2)
Reference Test Method: 40 CFR 75
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2026.
Subsequent reports are due every 3 calendar month(s).

**Condition 30: Capping Monitoring Condition**
**Effective between the dates of 10/23/2025 and 10/22/2030**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 30.1:**
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the

purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40 CFR 52.21

**Item 30.2:**
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 30.3:**
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 30.4:**
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 30.5:**
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 30.6:**
The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: U-00001
Process: 103

Emission Unit: U-00001
Process: 104

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 30.7:**
Compliance Certification shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
CEMS WHICH MEET THE REQUIREMENTS OF 40 CFR 75 ARE TO BE CALIBRATED, OPERATED, AND MAINTAINED IN THE GAS TURBINE/DUCT

BURNER EXHAUST STACK. THIS LIMIT APPLIES TO ALL PROCESSES WHEN THE TURBINE IS FIRING NATURAL GAS.

Manufacturer Name/Model Number: Thermo Scientific Model 42C
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 9.0 parts per million by volume
(dry, corrected to 15% O2)
Reference Test Method: 40 CFR 75
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2026.
Subsequent reports are due every 3 calendar month(s).

**~~Condition 31: Capping Monitoring Condition~~**
**~~Effective between the dates of 10/23/2025 and 10/22/2030~~**

**~~Applicable Federal Requirement:6 NYCRR Subpart 201-7~~**

**~~Item 31.1:~~**
~~Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:~~

~~40 CFR 52.21~~

**~~Item 31.2:~~**
~~Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.~~

**~~Item 31.3:~~**
~~The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.~~

**~~Item 31.4:~~**
~~On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.~~

**~~Item 31.5:~~**
~~The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.~~

~~Manufacturer Name/Model Number: Thermo Scientific Model 42C~~
~~Parameter Monitored: OXIDES OF NITROGEN~~
~~Upper Permit Limit: 425.0 pounds per hour~~
~~Reference Test Method: 40 CFR 75~~
~~Monitoring Frequency: CONTINUOUS~~
~~Averaging Method: 1-HOUR AVERAGE~~
~~Reporting Requirements: QUARTERLY (CALENDAR)~~
~~Reports due 30 days after the reporting period.~~
~~The initial report is due 1/30/2026.~~
~~Subsequent reports are due every 3 calendar month(s).~~

**Condition 36: Capping Monitoring Condition**
**Effective between the dates of 10/23/2025 and 10/22/2030**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 36.1:**
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40 CFR 52.21

**Item 36.2:**
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 36.3:**
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 36.4:**
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 36.5:**
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 36.6:**
The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: U-00001
Process: 101

Emission Unit: U-00001
Process: 102

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 36.7:**
Compliance Certification shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
CEMS WHICH MEET THE REQUIREMENTS OF 40 CFR 75 ARE TO BE CALIBRATED, OPERATED, AND MAINTAINED IN THE GAS TURBINE/DUCT BURNER EXHAUST STACK. THIS LIMIT APPLIES TO ALL PROCESSES WHEN FUEL OIL IS COMBUSTED IN THE TURBINE.

Manufacturer Name/Model Number: Thermo Scientific Model 42C
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 18.0 parts per million by volume
(dry, corrected to 15% O2)
Reference Test Method: 40 CFR 75
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2026.
Subsequent reports are due every 3 calendar month(s).

**Condition 37: Capping Monitoring Condition**
**Effective between the dates of 10/23/2025 and 10/22/2030**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 37.1:**
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40 CFR 52.21

**Item 37.2:**
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 37.3:**

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Item 37.4:**
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 37.5:**
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 37.6:**
The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: U-00001
Process: 101

Emission Unit: U-00001
Process: 102

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 37.7:**
Compliance Certification shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
PSD avoidance mass emission limit for NOx emissions from the combustion turbine/duct burner exhaust. The NOx mass emission limit for the above processes changes with ambient air temperature as shown on the NOx emission curves while burning oil. The NOx emissions curves are attached to the permit renewal application dated 09-26-2022.

Manufacturer Name/Model Number: Thermo Scientific Model 42C
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 51.0 pounds per hour
Reference Test Method: 40 CFR 75
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2026.
Subsequent reports are due every 3 calendar month(s).

**~~Condition 38:~~** **~~Compliance Certification~~**
**~~Effective between the dates of 10/23/2025 and 10/22/2030~~**

**~~Applicable Federal Requirement:6 NYCRR 202-2.1~~**

**~~Item 38.1:~~**
~~The Compliance Certification activity will be performed for the Facility.~~

**~~Item 38.2:~~**
~~Compliance Certification shall include the following monitoring:~~

~~Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES~~
~~Monitoring Description:~~
~~Emission statements shall be submitted on or before April 15th of each year for emissions of the previous calendar year. Statements are to be mailed to: New York State Department of Environmental Conservation, Division of Air Resources, Bureau of Air Quality Planning, 625 Broadway, Albany, NY 12233-3251~~

~~Monitoring Frequency: ANNUALLY~~
~~Reporting Requirements: ANNUALLY (CALENDAR)~~
~~Reports due 30 days after the reporting period.~~
~~The initial report is due 4/15/2026.~~
~~Subsequent reports are due every 12 calendar month(s).~~

**~~Condition 39:~~** **~~Statement dates for emissions statements.~~**
**~~Effective between the dates of 10/23/2025 and 10/22/2030~~**

**~~Applicable Federal Requirement:6 NYCRR 202-2.4 (a) (3)~~**

**~~Item 39.1:~~**
~~This facility is required to submit an annual emission statement electronically and these emissions statements must be submitted to the department as per the following schedule:~~

~~(i) March 15th of each year for facilities with three or fewer processes listed in their Title V permit:~~

~~(ii) March 31st of each year for facilities with four to six processes listed in their Title V permit:~~

~~(iii) April 15th of each year for facilities with 7 to 12 processes listed in their Title V permit:~~

~~(iv) April 30th of each year for facilities with 13 or more processes listed in their Title V permit.~~

## Appendix C: Public Notice Documents

An official website of New York State.
Here's how you know

<https://ny.gov>

Department of Environmental Conservation

Things To Do | Places to Go | Nature | Environmental Protection | Regulatory | News | Get Involved

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**ENB PUBLISH DATE: 12/31/2024**

# TOWN OF CROGHAN - BEAVER FALLS LLC

**Notice of Complete Application**

Applicant:

BEAVER FALLS, LLC
591 W PUTNAM AVE
GREENWICH, CT 06830

Facility:

BEAVER FALLS LLC
9644 MAIN ST
BEAVER FALLS, NY 13305

Application ID:

6-2320-00018/00010

Permit(s) Applied for:

Article 19 Air Title V Facility

Project is Located:

CROGHAN, LEWIS COUNTY

Project Description:

The Department has prepared a draft permit and has made a tentative determination, subject to public comment or other information, to approve a Title V permit renewal to Beaver Falls, LLC. for their Beaver Falls, Lewis County, NY facility for the operation of air pollution sources at the electricity producing facility. The facility is located at 9644 Main Street, Beaver Falls, NY.

The facility's pollutant emissions which exceed the major source threshold for Title V are: Nitrogen Oxides (NOx) and Carbon Monoxide (CO). Pursuant to 6 NYCRR 227-2.4, this draft permit revision contains conditions that establish case-by-case Oxides of Nitrogen Reasonably Available Control Technology (NOx RACT) limits that vary from presumptive RACT limits for mid-size gas boilers, which is .05lb/MMBtu. The permit conditions also allow the facility to determine compliance with the case-by-case NOx RACT limits with averaging methods every hour and conducting stack testing. Process specific (RACT) determinations that are included in this permit action will be submitted to the United States Environmental Protection Agency for approval as a revision to the State Implementation Plan.

In accordance with 6NYCRR Parts 621.7(d)(9) and 201-6.3(c), the Administrator of the United States Environmental Protection Agency (USEPA) has the authority to bar issuance of any Title V Facility Permit if it is determined not to be in compliance with applicable requirements of the Clean Air Act or 6NYCRR Part 201.

Persons wishing to inspect the subject Title V files, including the application with all relevant supporting materials, the draft permit, and all other materials available to the DEC (the "permitting authority") that are relevant to this permitting decision should contact the DEC representative listed below. The Draft Permit and Permit Review Report <https://dec.ny.gov/environmental-protection/air-quality/controlling-pollution-from-facilities/permits-registrations-fees> may be viewed and printed from the Department web site at: https://dec.ny.gov/environmental-protection/air-quality/controlling-pol... <https://dec.ny.gov/environmental-protection/air-quality/controlling-pollution-from-facilities/permits-registrations-fees>.

DEC will evaluate the application and the comments received on it to determine whether to hold a public hearing. Comments and requests for a public hearing should be in writing and addressed to the Department representative listed below. A copy of the Department's permit hearing procedures <https://dec.ny.gov/

regulatory/permits-licenses/environmental-permits/guide-to-permit-hearings> is available upon request or on the Department web site at: https://dec.ny.gov/regulatory/permits-licenses/environmental-permits/gu... <https://dec.ny.gov/regulatory/permits-licenses/environmental-permits/guide-to-permit-hearings>.

Availability of Application Documents:

Filed application documents, and Department draft permits where applicable, are available for inspection during normal business hours at the address of the contact person. To ensure timely service at the time of inspection, it is recommended that an appointment be made with the contact person.

State Environmental Quality Review (SEQR) Determination:

Project is not subject to SEQR because it is a Type II action.

SEQR Lead Agency: None Designated

State Historic Preservation Act (SHPA) Determination:

The proposed activity is not subject to review in accordance with SHPA. The application type is exempt and/or the project involves the continuation of an existing operational activity.

Coastal Management:

This project is not located in a Coastal Management area and is not subject to the Waterfront Revitalization and Coastal Resources Act.

DEC Commissioner Policy 29, Environmental Justice and Permitting (CP-29)

It has been determined that the proposed action is not subject to CP-29.

Opportunity for Public Comment:

Comments on this project must be submitted in writing to the Contact Person no later than *Jan 31, 2025*.

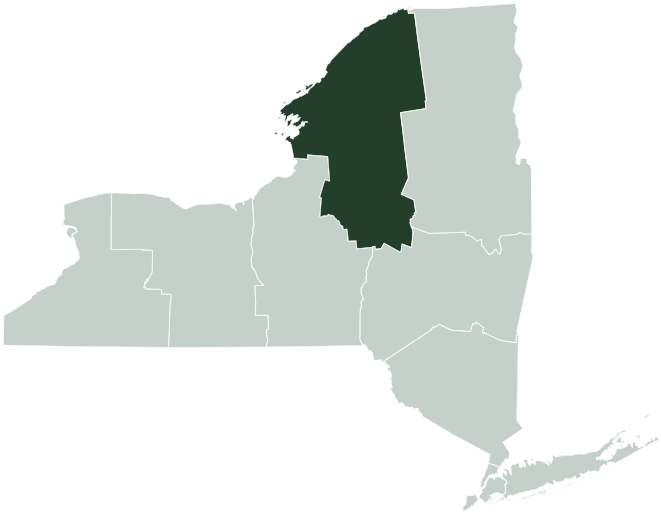
## Primary Contact

Miranda Gilgore
NYSDEC Region 6 Headquarters
State Office Building - 317 Washington St
Watertown, New York 13601

**Phone:** 315-785-2245
dep.r6@dec.ny.gov

## This Page Covers

Region 6 - Western Adirondacks/Eastern Lake Ontario



## Department of Environmental Conservation </>