

Applicant:

RED-Rochester LLC
640 Quail Ridge Dr
Westmont, IL 60559

Facility:

RED-Rochester LLC at Eastman Business Park
Eastman Business Park Buildings 091, 095, 311, 602, 096, R16, 031, 321, M90,
001, 027, 087, 322, 402, & 511
Rochester, NY 14650 -0001

Application ID:

8-2699-00126/00001

Permit(s) Applied for:

Article 19 Air Title V Facility

Project is Located:

Rochester, Monroe County

Project Description:

The Department has received an application from RED-Rochester LLC for renewal and modification of its Title V Facility Permit for utility operations, which include coal, oil and natural gas fired boilers producing steam and electrical power for commercial customers in Eastman Business Park. Other RED operations include wastewater treatment operations, wastewater sludge incineration, solvent based metal part cleaning operations, and emergency power generator operations. RED's operations occur in 7 buildings in Eastman Business Park, Buildings 31, 321, M90, 95, 91, R16, and 96. RED's emergency generating operations occur throughout Eastman Business Park.

With this application for renewal, RED-Rochester LLC seeks authorization for conversion of Building 321 coal fired boiler operations to natural gas with some #2 fuel oil backup. The extent of the conversion will be dependent on the volume of natural gas to be available at Eastman Business Park. The preferred "Scenario 1" conversion of all coal burning operations to natural gas, is dependent on an

increased natural gas supply to the boiler locations with the installation of a new natural gas pipeline along existing rights of way. An alternate "Scenario 2" conversion, of part of the coal burning operations to natural gas, is based on the natural gas supply currently available, and is a contingency if the new pipeline does not become available.

In either case, RED-Rochester will decommission six boilers, the currently shut down 640 million BTU per hour (MBTU/hr) coal fired Boiler 41, the operating 670 MBTU/hr coal fired Boiler 42, and four operating 98 MBTU/hr #6 fuel oil fired package boilers. With the increased Scenario 1 natural gas supply the 640 MBTU/hr coal fired Boiler 43 would be permanently shut down. If limited to the Scenario 2 current natural gas supply, RED-Rochester proposes to continue to operate Boiler 43 on coal in a backup role, and limit its heat input to a maximum of 560,000 MBTU/year, which is 10 percent of its annual operating capacity. This limit on Boiler 43 operations will meet the definition of a Limited-use boiler in 40 CFR 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial Boilers. A Limited-use boiler must have a tune-up every 5 years, and is exempt from the emission limits, energy assessment requirements, and annual tune-up requirements of Subpart DDDDD.

If limited to the Scenario 2 current natural gas supply, new installations will include three 160 MBTU/hr natural gas fired turbine generators, each fitted with a 245 MBTU/hr natural gas fired Heat Recovery Steam Generating Unit, and a single new 275 MBTU/hr dual fuel package boiler able to burn either natural gas or #2 fuel oil. These will replace the decommissioned boilers and 90 percent of current coal fired Boiler 43 operations. The 670 MBTU/hr Boiler 44 would continue to operate under this scenario, and would be required to meet Subpart DDDDD requirements for an existing coal fired boiler.

With the preferred Scenario 1 increased natural gas supply, the turbine generators, steam generating units, and dual fuel boiler indicated above will be part of a larger conversion project. In addition, a new 343 MBTU/hr high pressure dual fuel natural gas or #2 fuel oil boiler, and two new 343 MBTU/hr high pressure natural gas boilers will also be installed. Finally, Boiler 44 will be converted from coal fired to dual fuel natural gas or #2 fuel oil operation, with a slightly reduced 622 MBTU/hr heat capacity.

RED-Rochester is seeking Emission Reduction Credits (ERC) based on the criteria in 6NYCRR Part 231-10 for the complete conversion to natural gas, and also for the partial "Scenario 2" conversion as a contingency. RED Rochester is proposing to use some of these ERC for conversion project "Netting" to avoid the significant project thresholds specified in 6NYCRR Part 231-6 and Part 231-8. With the partial natural gas conversion project, available ERC for Netting would be less than for the complete conversion.

For the Scenario 1 complete conversion, these ERC would represent emissions reductions in oxides of nitrogen (NO_x) of 568.7 tons per year (t/y), volatile organic compounds (VOC) of 18.1 t/y, carbon monoxide (CO) of 108.8 t/y, sulfur dioxide (SO₂) of 12,690.3 t/y, particulate matter smaller than 2.5 microns (PM-2.5) of 570.8 t/y, particulate matter smaller than 10 microns (PM-10) of 719.4 t/y, and total particulate matter (PM) of 870.9 t/y.

Applying 466.9 t/y of the 568.7 t/y NO_x ERC, and 2.9 t/y of the 18.1 t/y VOC ERC to the Scenario 1 conversion project will keep NO_x and VOC emission increases (Project Emission Potentials) below the 40 t/y significant net increase thresholds in 6NYCRR Part 231-6 Modifications to Existing Major Facilities in the Ozone Transport Region. This will allow RED-Rochester to retain 101.8 t/y of NO_x ERC and 15.2 t/y of VOC ERC.

Applying 52.3 t/y of the PM-2.5 ERC, 47.8 t/y of the PM-10 ERC, and 37.8 t/y of the PM ERC to the Scenario 1 expansion project will keep Project Emission Potentials below significant net increase thresholds in 6NYCRR Part 231-8 Modifications to Existing Major Facilities in Attainment Areas (Prevention of Significant Deterioration), of 10 t/y of PM-2.5, 15 t/y of PM-10, and 25 t/y of total PM.

Additionally, RED-Rochester has proposed to restrict the increase in CO emissions from the Scenario 1 conversion project to 250 t/y by limiting operations and installing catalytic controls. This is below the 100 t/y increase significant project threshold in Part 231-8, after the entire 108.8 t/y CO ERC for the reductions listed above are applied, and the 42.3 t/y of projected CO emissions from converted Boiler 44 are added. RED-Rochester has also proposed project emission limits for Scenario 1 of 684.0 t/y of NO_x, 71.2 t/y of PM 2.5, PM-10, and PM, and 44.0 t/y of VOC.

For the Scenario 2 partial conversion contingency, these ERC would represent emissions reductions of 512.7 t/y of NO_x, 17.4 t/y of VOC, 103.4 t/y of CO, 12,410.3 t/y of SO₂, 523.3 t/y of PM-2.5, 622 t/y of PM-10, and 803.7 t/y of PM.

Applying 217.4 t/y of the 512.7 t/y NO_x ERC to the Scenario 2 conversion project will keep the NO_x Project Emission Potential below the 40 t/y significant net increase threshold in 6NYCRR Part 231-6 Modifications to Existing Major Facilities in the Ozone Transport Region. This will allow RED-Rochester to retain 295.3 t/y of NO_x ERC. With the Scenario 2 Project Emission Potential below the 40 t/y Part 231-6 threshold for VOC, RED-Rochester would retain the entire 17.4 t/y VOC ERC.

Applying 30.2 t/y of the PM-2.5 ERC, 25.2 t/y of the PM-10 ERC, and 15.2 t/y of the PM ERC to the Scenario 2 expansion project will keep Project Emission Potentials below significant net increase thresholds in 6NYCRR Part 231-8 Modifications to Existing Major Facilities in Attainment Areas (Prevention of Significant Deterioration), of 10 t/y of PM-2.5, 15 t/y of PM-10, and 25 t/y of total PM.

Additionally, RED-Rochester has proposed to restrict the increase in CO emissions from the Scenario 2 conversion project to 207 t/y by limiting operations and installing catalytic controls. This is below the 100 t/y increase significant project threshold in Part 231-8, after the entire 103.4 t/y CO ERC for the reductions listed above are applied, and 5.4 t/y of projected CO emissions from the limited use Boiler 43 are added. RED-Rochester has also proposed project emission limits for Scenario 2. Emissions would be limited to 424.4 t/y of NO_x, 86.7 t/y of PM-2.5, 96.5 t/y of PM-10, and 106.4 t/y of PM. Boiler 43 would be operated at 10 percent of annual capacity as a 40 CFR 63 Subpart DDDDD Limited-use boiler or 560,000 MBTU heat input per year.

In response to the application, the Department has generated a Draft Title V Facility Permit to authorize either the Scenario 1 project for a conversion of all coal burning boiler operations to natural gas, or the Scenario 2 project for partial conversion. The Draft Permit contains enforceable conditions, emission limits, and ERC that independently apply to either Scenario. The Draft Permit also includes revised operating limits for the Multiple Hearth Incinerator located at Building 95 at Kings Landing Waste Water Treatment Plant. The updated limits reflect the latest testing conducted in July 2013 to demonstrate compliance with the Hazardous Waste

Combustors Maximum Achievable Control Technology (MACT) in 40 CFR 63 Subpart EEE.

RED-Rochester also operates an odor control trickling filter at Kings Landing Wastewater treatment Plant. VOC emissions from this scrubber system are subject to 6NYCRR Part 212.10 Reasonably Available Control Technology (RACT) requirements. The current Permit includes an alternate limit of 11 t/y of VOC emissions and a requirement to re-evaluate this RACT determination as part of the Title V renewal application. This latest evaluation has resulted in a new lower limit in the Draft Permit of 9 t/y of VOC emissions based on data calculated from decreased influent loading to the treatment plant. In addition to the VOC limit, a condition is included in the Draft Permit to ensure proper operation of scrubber system by requiring that a minimum flow rate be maintained. No additional VOC control options were found to be both technologically and economically feasible.

The Department has made a tentative determination to issue the Draft as a Final Permit, if comments received do not raise significant issues that must be addressed before a permit can be issued.

The application and Draft Permit are available for review at the Region 8 NYSDEC office. The [Draft Title V Facility Permit and Permit Review Report](#) may be viewed or downloaded as .pdf files at: http://www.dec.ny.gov/dardata/boss/afs/draft_atv.html

In accordance with 6NYCRR Parts 621.7(b)(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](#) may be viewed and printed from the Department web site at: <http://www.dec.ny.gov/chemical/32249.html>.

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](#) is available upon request or on the Department web site at: <http://www.dec.ny.gov/permits/6234.html>.

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 an Unlisted Action and will not have a significant impact on the environment. A Negative Declaration is on file. A coordinated review was not performed.

SEQR Lead Agency: None Designated

State Historic Preservation Act (SHPA) Determination:

Cultural resource lists and map have been checked. No registered, eligible or inventoried archaeological sites or historic structures were identified at the project location. No further review in accordance with SHPA is required.

Coastal Management:

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

Opportunity for Public Comment:

Comments on this project must be submitted in writing to the Contact Person no later than *Jul 17, 2015*.

Contact:

Roger T McDonough
NYSDEC Region 8 Headquarters
6274 E Avon-Lima Rd
Avon, NY 14414
(585)226-2466
DEP.R8@dec.ny.gov