



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R02-OAR-2025-0290; FRL-12965-01-R2]

Approval of Source-Specific Air Quality Implementation Plan; New York; Calpine JFK Energy Center

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to determine a revision to the State of New York's State Implementation Plan (SIP) for the ozone National Ambient Air Quality Standard (NAAQS) related to a Source-specific SIP (SSSIP) revision for Calpine JFK Energy Center, located at Kennedy International Airport, Building 49, Jamaica, NY 11430 (the Facility) is approvable. The EPA is proposing to find that the control options in this SSSIP revision implement Reasonably Available Control Technology (RACT) with respect to NO_x emissions from the relevant Facility sources, which are identified as six mid-size emergency hot water boilers. This SSSIP revision is intended to implement NO_x RACT for the relevant Facility sources in accordance with the requirements for implementation of the 2008 and 2015 ozone NAAQS. The EPA proposes to determine that this action will not interfere with ozone NAAQS requirements and meets all applicable requirements of the Clean Air Act (CAA).

DATES: Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R02-OAR-2025-0290 at <https://www.regulations.gov>. Although listed in the index, some information is not publicly available, e.g., Controlled Unclassified Information (CUI) (formerly referred to as Confidential Business Information (CBI)) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted

material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through <https://www.regulations.gov>. Follow the online instructions for submitting comments.

Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be CUI or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CUI or multimedia submissions, and general guidance on making effective comments, please visit

<https://www.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Stephanie Lin, Air Programs Branch, Environmental Protection Agency, Region 2 Office, 290 Broadway, 25th Floor, New York, New York 10007-1866, telephone number: (212) 637-3711, email address: lin.stephanie@epa.gov.

SUPPLEMENTARY INFORMATION: For additional information on regulatory background and the EPA's technical findings relating to the Facility RACT, the reader can refer to the Technical Support Document (TSD) that is contained in the EPA docket assigned to this *Federal Register* document.

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I. Background

Ground level ozone formation

Ground level ozone is predominantly a secondary air pollutant created by chemical reactions that occur when ozone precursors, including nitrogen oxides (NO_x) and volatile organic compounds (VOC), chemically react in the presence of sunlight. Emissions from industrial facilities are anthropogenic sources of ozone precursors. The potential for ground-level ozone formation tends to be highest during months with warmer temperatures and stagnant air masses. Ozone levels are thus generally higher during the summer months, which is often referred to as “the ozone season.” In New York, the ozone season is generally considered to be between April 15 and October 15, while the non-ozone season is generally considered to be between October 16 and April 14.

Ozone nonattainment

A geographic area of the United States that is not meeting the primary or secondary National Ambient Air Quality Standard (NAAQS) for ozone is described as a nonattainment area.¹ Nonattainment areas are classified as either Marginal, Moderate, Serious, Severe, or Extreme. With respect to this proposed action, there are two relevant ozone NAAQS standards. First, on March 12, 2008, the EPA promulgated a revision to the ozone NAAQS, setting both the primary and secondary standards at 0.075 parts per million (ppm) averaged over an 8-hour time frame (2008 8-hour Ozone Standard). *See* 73 FR 16436 (March 27, 2008). Second, on October 1, 2015, the EPA lowered these standards to 0.070 ppm averaged over an 8-hour time frame (2015 8-hour Ozone

¹ **Primary standards** provide public health protection, including protecting the health of “sensitive” populations such as asthmatics, children, and the elderly. **Secondary standards** provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Standard). *See* 80 FR 65292 (October 26, 2015). Under CAA section 184, the State of New York is located within the Ozone Transport Region (OTR), which means that it is subject to statewide RACT requirements. This Facility is also located in the New York-N. New Jersey- Long Island (NYMA) ozone nonattainment area for both the 2008 and 2015 ozone NAAQS and is a major source of NO_x. Therefore, RACT is also being implemented for this facility for nonattainment planning purposes related to CAA section 182.

Federal RACT Requirements

RACT is defined as the lowest emission limit that a source is capable of meeting through the application of control technology that is reasonably available considering technological and economic feasibility.² CAA section 184(b)(2) sets forth the requirement to establish control measures to implement RACT for major sources of VOC located in the OTR. For major sources of NO_x, CAA section 182(f)(1) also applies, “The plan provisions required under this subpart for major stationary sources of volatile organic compounds shall also apply to major stationary sources (as defined in section 7602 of this title and subsections (c), (d), and (e) of this section) of oxides of nitrogen.” The State of New York is located within the OTR, and thus the State is required to implement RACT for all major sources of VOC within the State.

NYSDEC RACT Requirements

The New York State Department of Environmental Conservation (NYSDEC) RACT regulations require applicable facilities to meet certain requirements, referred to as “presumptive RACT requirements.” These presumptive requirements generally require sources to implement emission limits, control efficiency requirements, specific control

² See, EPA, “Guidance for determining acceptability of SIP regulations in non-attainment areas,” memo 1976, Roger Strelow, https://www3.epa.gov/ttn/naaqs/aqmguidance/collection/cp2/19761209_strelow_ract.pdf.

technologies, averaging plans, and/or fuel/raw material switching practices. In some instances, the general presumptive RACT requirements may not be technologically or economically feasible for a certain source, and the State can make a Source-specific RACT determination, which is submitted to the EPA as a SSSIP. The SSSIP should include the facility's RACT plan that demonstrates how the facility will implement RACT. The SSSIP will also include the applicable CAA title V operating permit conditions that address RACT requirements. These RACT variance permit conditions for the Facility will become Federally enforceable upon the EPA's final approval of this SSSIP.

Under existing NYSDEC RACT regulations, facilities are required to assess all technologically feasible control options that meet the State's cost threshold. The cost threshold for NYSDEC RACT requirements is found under NYSDEC 2013 policy, "DAR-20 Economic and Technical Analysis for Reasonably Available Control Technology (RACT)." Under this policy, facilities must consider in their RACT determinations control technologies that remove VOC or NO_x emissions up to a certain cost threshold, expressed in a dollar amount per ton of VOC or NO_x removed, which includes an inflation-adjusted economic threshold.³

II. The EPA's evaluation of New York's submission and RACT analysis

This action relates to a SSSIP revision that concerns the Calpine Corporation Kennedy International Airport Cogeneration (KIAC)/John F. Kennedy (JFK) Energy Center (the Facility) - located in the central terminal area of the JFK International Airport in Jamaica, NY. The Facility supplies electricity to the airport and the Consolidated Edison (Con Ed) Power Distribution Grid. The Facility also supplies steam to the airport's central heating and refrigeration plant. The sources at issue in this action are for

³ The DAR-20 cost threshold is based on 1994 dollars. State of New York relies on the U.S. Department of Labor, Bureau of Labor Statistics inflationary calculator to adjust the RACT economic feasibility threshold over time for inflation. See https://www.bls.gov/data/inflation_calculator.htm.

the Facility's six mid-size emergency hot water boilers (the Boilers). The Boilers are used intermittently to supplement hot water generation at the airport when the combustion turbine-based cogeneration units are unavailable or cannot meet demand.

The NYSDEC RACT regulations establish RACT requirements for this category of sources in 6 NYCRR subpart 227-2, "Reasonably Available Control Technology (RACT) For Major Facilities of Oxides of Nitrogen (NO_x)," last approved into New York's SIP by the EPA on July 12, 2013. *See* 78 FR 41846. However, as explained above, the NYSDEC RACT regulations allow Source-specific RACT determinations if the presumptive RACT requirements are not technologically or economically feasible; such Source-specific determinations must be submitted to the EPA as a SSSIP.

This SSSIP was submitted to EPA by NYSDEC on June 9, 2023. The EPA has reviewed the RACT determination in this SSSIP submittal for the Boilers for consistency with the CAA and EPA regulations, as interpreted through EPA actions and guidance. The intended effect of this Source-specific SIP revision is to establish an emission limit for the process specific control measure for the Boilers.

The EPA is proposing to determine through this SSSIP action that the NO_x RACT emission limit submitted by the State in this SSSIP for the Boilers is the lowest emission limit with the application of control technology that is reasonably available given technological and economic feasibility considerations. The respective NO_x RACT emission limit is contained in the Facility's air permit, Title V operating permit, 2-6308-00096/00009 under conditions 56, 57, 58, emission unit B-OILRS issued by the State on June 28, 2022, and expires on June 27, 2027. EPA is proposing to approve the incorporation of permit conditions 56, 57, and 58 into the SIP. These conditions include monitoring, reporting, and recordkeeping requirements for the Boilers further described in the EPA RACT analysis below.

The Facility submitted a RACT demonstration, dated January 2022, to the NYSDEC for the emission limit requirements, and NYSDEC reviewed and approved the emission limit as adequately implementing RACT for the source. NYSDEC then submitted the Source-specific SIP revision package at issue in this action for the EPA approval, and the EPA is proposing to determine the respective emission limit as implementing RACT for this source. The RACT variance emission limit for the Facility will become Federally enforceable upon the EPA's final approval of this SSSIP.

EPA RACT analysis

The following is a summary of the EPA's analysis of how the proposed NOx emission limit implements RACT for emission unit B-OILRS that represent the Boilers. Further detail on this analysis is provided in the TSD available in the docket for this proposed rulemaking.

The RACT demonstration must show an alternate emission limit to comprise RACT and a RACT variance can be requested pursuant to 6 NYCRR subpart 227-2. Such a RACT variance can be approved if supported by a RACT demonstration and submitted to the EPA for review as a SIP revision.

The Facility's RACT demonstration shows that the control of NOx emissions during hot water generation is the only NOx control technology that is technologically and economically feasible for this facility. Currently, the Facility does not limit the NOx emissions from the Boilers with any technologies. In its RACT demonstration, the Facility demonstrated that no cost-effective controls were technically feasible. The Facility operates the Boilers, which are intermittently used to produce additional hot water for JFK Airport when the combustion turbine-based cogeneration units are not available or cannot otherwise meet the airport demand. As described below, the Boilers are characterized as mid-size boilers under 6 NYCRR subpart 227-2. Based upon emission test data, these six units do not meet the presumptive emission limitations. In

accordance with the provisions of 6 NYCRR subpart 227-2.5(c), the owner or operator can request a higher emission limit but must demonstrate that the emission limit in 6 NYCRR subpart 227-2.4 is not technically or economically feasible.

As stated in permit Conditions 56, 57, and 58, the Facility must: monitor NO_x total annual emissions monthly with a rolling 12-month maximum, and report annually and monitor the Boilers when firing low sulfur distillate oil or natural gas once every five years with a one-hour average with a report once per batch or monitoring occurrence.

The Boilers generate NO_x emissions during hot water generation, range in size (heat input capacity) from 40 MMBtu/hr to 75 MMBtu/hr and are capable of firing natural gas or distillate oil. Per 6 NYCRR 200.1(cm), a “boiler” is defined as a device that combusts fossil fuel or wood and produces steam or heats water or any other heat transfer medium. The Boilers combust a fossil fuel (natural gas or distillate sulfur oil) and heat water. Per 6 NYCRR 227-2.2(b)(4), a “mid-size boiler” is defined as a boiler with a maximum heat input capacity greater than 25 million Btu per hour and equal to or less than 100 million Btu per hour.

NYSDEC reviewed the RACT demonstration and determined that the alternate emission limit implements RACT for the Boilers. Specifically, NYSDEC approved the following case-by-case emission limit: (1) total emissions of 24 tons per year (tons/yr) of NO_x from emission unit B-OILRS, on a rolling 12-month basis, with the total monthly NO_x emissions for each boiler calculated on a monthly basis; (2) records of monthly NO_x emissions shall be maintained in a permanently bound log or in electronic format with reporting requirements annually and reports due 30 days after the reporting period; (3) maximum NO_x emission rate of 0.15 lb/MMBtu per hour for each of the Boilers when firing natural gas, and 0.25 lb/MMBtu per hour when firing distillate oil; and (4) NO_x emission testing once every five years to verify that the actual NO_x emissions from

a particular boiler are less than the maximum limits per hour when firing low sulfur distillate oil or natural gas.

We are proposing to determine that the following additional technically feasible control options do not need to be implemented because they are not cost effective: (1) fuel switching; (2) low-NOx burners; and (3) flue gas recirculation.

To determine what NOx control technologies could be economically and technologically feasible for the Boilers, the EPA reviewed the Reasonably Available Control Technology/Best Available Control Technology/Lowest Achievable Emission Rate Clearinghouse (RBLC)⁴, EPA's Alternative Control Techniques (ACT) and Control Techniques Guidelines (CTG), and the vendor quote provided by the State as part of the RACT evaluation. The EPA's RBLC search criteria were based on: permit dates from June 28, 2012 to June 28, 2022, process types for Commercial/Institutional-Size Boilers/Furnaces (<100 million BTU/H): 13.900 Other Fuels and Combinations (e.g., solid/liquid, liquid/gas); 13.220 Distillate Fuel Oil (ASTM #1,2, includes kerosene, aviation, diesel fuel); 13.310 Natural Gas (includes propane and liquefied petroleum gas), NOx pollutant, and All States. The EPA's RBLC review reveals that there are 54 facilities in the United States that possibly operate with similar practices as the Facility (such as having boilers or being an energy generating facility). The EPA also reviewed one vendor quote for the Boilers as contained in the SSSIP submission, and they appear to be technically sound. The EPA confirms that no cost-effective NOx control technologies have become available that could be implemented on the Facility's Boilers. For more information, refer to the TSD associated with this rulemaking.

The EPA is proposing to determine that the proposed limit for the Boilers implements RACT because: (1) The 6 NYCRR subpart 227-2 presumptive NOx limit for

⁴ The RBLC contains case-specific information on the best available air pollution technologies that have been required to reduce the emission of air pollutants from stationary sources. *See* <https://cfpub.epa.gov/rblc/index.cfm?action=Search.BasicSearch&lang=en>.

the Boilers of 0.08 lbs/MMBtu is not economically and technologically feasible for this source; (2) no additional control technologies beyond what are currently used at the Boilers are technically and economically feasible; (3) emission limit of maximum NO_x emission rate of 0.15 lb/MMBtu per hour for each of the Boilers when firing natural gas, and 0.25 lb/MMBtu per hour when firing distillate oil comprises RACT for this source; and (4) the SIP revision contains monitoring and reporting requirements.

III. Proposed action

The EPA is proposing to approve this current Source-specific revision because the limits included in the SSSIP are demonstrated to implement RACT for emission unit B-OILRS that represent the Boilers. Based on information provided by NYSDEC, a thorough RBLC review of similar sources and EPA's Alternative Control Techniques (ACT) and Control Techniques Guidelines (CTG), and an analysis of this Source-specific SIP revision, the EPA proposes to determine the Facility's operation under the NYSDEC approved NO_x emission limits for the Facility's Boilers.

Specifically, the EPA proposes to determine the following limits and associated requirements as implementing RACT: the Facility must: (1) have a maximum total emissions of 24 tons/yr of NO_x from the Boilers, on a rolling 12-month basis, with the total monthly NO_x emissions for each boiler calculated on a monthly basis; (2) maintain records of monthly NO_x emissions in a permanently bound log or in electronic format with reporting requirements annually and reports due 30 days after the reporting period; (3) have a maximum NO_x emission rate of 0.15 lb/MMBtu per hour for each of the Boilers when firing natural gas, and 0.25 lb/MMBtu per hour when firing distillate oil; and (4) conduct NO_x emission testing once every five years to verify that the actual NO_x emissions from a particular boiler are less than the maximum limits per hour when firing low sulfur distillate oil or natural gas.

IV. Incorporation by Reference

In this document, the EPA is proposing to include regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference revisions to Facility's Title V operating permit conditions 56, 57, 58 as described in section II. of this preamble. The EPA has made, and will continue to make, these materials generally available through <https://www.regulations.gov>.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Is not subject to Executive Order 14192 (90 FR 9065, February 6, 2025) because SIP actions are exempt from review under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64

FR 43255, August 10, 1999);

- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a state program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian Tribe has demonstrated that a Tribe has jurisdiction. In those areas of Indian country, the rule does not have Tribal implications and will not impose substantial direct costs on Tribal governments or preempt Tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Oxides of nitrogen, Ozone, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Michael Martucci,
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