



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2

290 BROADWAY

NEW YORK, NY 10007-1866

December 28, 2021

Mr. Kevin A. Kispert
Project Manager
New York Department of Environmental Conservation Region 1
Division of Environmental Permits
50 Circle Road
Stony Brook, NY 11790
kispert@dec.ny.gov

Re: Draft Title IV Phase II and Title V Operating Permits for Caithness Long Island Energy Center, Brookhaven, Suffolk County, NY

Dear Mr. Kispert:

Thank you for the opportunity to comment on the draft renewal title IV Phase II (Acid Rain) permit and draft renewal title V permit (with modifications) for the Caithness Long Island Energy Center ("Caithness" or "facility") that the New York State Department of Environmental Conservation (NYSDEC), Region 1 Office, issued for public review on December 8, 2021. The public comment period will end on January 7, 2022. The draft title V renewal permit is a combined Prevention of Significant Deterioration of Air Quality (PSD), Nonattainment New Source Review (NNSR) and title V operating permit that also includes several modifications. While NYSDEC is the permitting authority for the title V, PSD and NNSR permit programs, in the case of Caithness, EPA issued a PSD permit to Caithness, pursuant to 40 CFR §52.21, in 2006. This permit was subsequently modified by EPA in 2020¹. As with other applicable requirements, all PSD requirements from the Caithness PSD permit issued by EPA are required to be included in the draft title V permit pursuant to 40 CFR §70.6(a)(1). We reviewed the draft title V permit, permit review report (PRR)², and application and have identified several concerns regarding the draft permit. Our overarching concerns are as follows:

- 1) The draft title V permit, improperly, removes and/or modifies requirements from Caithness' PSD permit.
- 2) The draft title V permit omits applicable PSD permit requirements (BACT emission limits), NSPS requirements, and NYSDEC's SIP-approved rule requirements.

NYSDEC must address the comments included in Enclosure I to ensure that the draft title V permit is consistent with applicable Clean Air Act (CAA) requirements, federal regulations and standards and NYSDEC's SIP-approved air regulations and title V-approved operating permits program.

¹ The 2006 and 2020 PSD permits issued by EPA to Caithness are available on the EPA R2 website at <https://www.epa.gov/caa-permitting/caa-permits-issued-epa-region-2>

EPA also reviewed the draft Acid Rain permit to ensure that it is consistent with the federal Acid Rain regulations. Recommendations related to the Acid Rain draft permit are also provided in Enclosure I.

We look forward to working with you to address the enclosed comments. If you have any further questions or wish to discuss any of these issues, please feel free to contact me at 212-637-4019 or chan.suilin@epa.gov, or Viorica Petriman at 212-637-4021 or petriman.viorica@epa.gov.

Sincerely,

Suilin W. Chan, Chief
Permitting Section
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Enclosures

cc: Michael Cronin, NYSDEC
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Denise Prunier, NYSDEC
Michael Miliani, NYSDEC
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ENCLOSURE I

I. Draft Title V Permit

1. Draft Title V Permit Improperly Removes and/or Modifies Requirements From Caithness' PSD Permit
 - a. The Caithness PSD permit limits the operation of the duct burner (DB) to 4,380 hours during any 12-month consecutive period. This limit is included in the Caithness' current title V permit at Condition 74. The draft title V permit removed the 4,380 hours limit, and instead includes at Condition 50 of the draft title V permit a limit of 2,071,740 MMBTU during any 12-month consecutive period on the heat input of the duct burner. DEC improperly replaced the PSD limit of 4,380 hours/year with a heat input limit for the DB.
 - b. The Caithness PSD permit allows operation of the auxiliary boiler to: (1) when the combustion turbine (CT) is not operating; and (2) during periods of combustion turbine startup, for a period of 102 or 115 minutes/startup event. These PSD permit requirements are included in the Caithness' current title V permit at Conditions 147 and 118/Item 118.5. The draft title V permit removed these PSD permit limits on the auxiliary boiler's operation. Instead, Condition 110 of the draft title V permit includes the following language specifying the circumstances under which the auxiliary boiler is authorized to operate:

“The auxiliary boiler shall not operate when the combustion turbine operates except 1) for periodic maintenance and testing operations; 2) for operation of up to 2 hours prior to a shutdown of the combustion turbine in order to prepare for the shutdown and to maintain a steam blanket for the system; 3) during shutdown of the combustion turbine; 4) during a combustion turbine startup 5) for operation of up to 2 hours after completion of a combustion turbine startup to ensure that normal operating conditions have been reached.”

EPA has previously expressed to both NYSDEC and Caithness (*See* Enclosure II²) that all requirements of the Caithness PSD permit should be included in the title V permit. PSD permit requirements cannot be removed from the title V permit or altered through a title V permitting process, without first being modified in the PSD permit. Thus, in order for the modifications related to the PSD permit requirements as described above at A.1. a. and b. to be included in the Caithness draft title V permit, they must be removed or modified first via the PSD process by EPA. Caithness should submit, as soon as possible, a PSD application to EPA requesting these changes, along with the documentation justifying them. Until the PSD permit is modified, the above-described PSD permit requirements, which were removed and/or modified, should be reinstated in the draft title V permit, in the same manner they appear in the facility's current title V permit. The title V permit can be modified at a later date, after EPA completes its action on Caithness' PSD permit modification request.

² Enclosure II contains the following documents: EPA letter dated 11/5/2019 to Caithness; 6/29/2020 EPA response to NYSDEC Region 1 comments on the 2020 PSD draft permit revisions; and EPA Cover Letter dated 8/19/2020 transmitting the Final PSD permit revision to Caithness.

2. Draft Title V Permit Omits Applicable Requirements

As specified at CAA §§ 504(a) and (c), 40 CFR § 70.6(a)(1) and (3), and 6 NYCRR 201-6.4, each title V permit must include all emission limits and standards, as well as operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance. The permit must also include all necessary testing, monitoring, recordkeeping, and reporting requirements to demonstrate compliance with the emission limitations. As discussed below, the Caithness draft title V permit must be revised to ensure compliance with these provisions.

- a. PSD permit requirements – Best Available Control Technology (BACT) emission limits and associated monitoring, recordkeeping and reporting requirements are omitted for the following air pollutants:
 - i. NO_x emissions – There are no BACT limits for the CT and DB, auxiliary boiler, and fire pump. Since the NO_x LAER limits for these emission sources are identical with the NO_x BACT limits, the draft title V permit can be corrected by simply adding a sentence to each condition containing a NO_x LAER limit stating that the NO_x LAER limit also constitutes the BACT NO_x limit and compliance with the NO_x LAER limits is compliance with the BACT NO_x limit.
 - ii. SO₂ emissions – There are no BACT limits for the CT and DB, and auxiliary boiler while these emissions sources are combusting natural gas.
 - iii. H₂SO₄ emissions – There are no BACT limits for the CT and DB while these emission sources are combusting natural gas.
- b. New Source Performance Standards (NSPS) requirements – Emission limits, monitoring, reporting and recordkeeping requirements from the following subparts are omitted:
 - i. NSPS GG “Standards of Performance for Stationary Gas Turbines,” which apply to the CT;
 - ii. NSPS Da “Standards of Performance for Electric Utility Steam Generating Units,” which apply to the DB;
 - iii. NSPS Dc “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units,” which apply to the auxiliary boiler;
- c. Requirements from the following NY SIP approved rule are omitted:

6 NYCRR Subpart 227-2 “Reasonably Available Control Technology (RACT) for Major Facilities of Oxides of Nitrogen (NO_x)” requirements that apply to the CT and DB.

The draft title V permit should be revised to include the omitted applicable requirements. If the facility or NYSDEC seeks to streamline some identical applicable requirements (e.g., emission

limits, monitoring, testing, recordkeeping, reporting, etc.), please see below the discussion on “Streamlining in Title V permits.”

3. Streamlining in Title V Permits

In order to conform to CAA §§ 504(a) and (c), 40 CFR § 70.6 and 6 NYCRR 201-6.4, the draft permit should include all applicable requirements (e.g., emission limitations, testing, monitoring, recordkeeping, reporting requirements, etc.) from federal regulations and standards, as well as NYSDEC’s SIP-approved air regulations. Alternatively, if the facility and/or NYSDEC wishes not to include all applicable requirements, and instead, streamline some identical applicable requirements and include only the most stringent ones in the draft permit, the March 5, 1996, “EPA White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program” (EPA White Paper #2) must be followed. The EPA White Paper #2 recommends that when streamlining is utilized, the permit should contain language indicating that when the facility is in compliance with the more restrictive applicable requirement, it is in compliance with the less restrictive applicable requirement. The citation of authority for the streamlined condition should reference the authority of the streamlined or more restrictive applicable requirement (emission limit, monitoring, recordkeeping, and reporting requirement, work practices, etc.) as well as the authority of the subsumed or less restrictive applicable requirement. By including the origin of authority of the subsumed applicable requirement in a title V document, the respective less restrictive requirement, which was not separately included in the permit, remains an applicable requirement.

Also, the EPA White Paper #2, provides that a streamlining demonstration should include a side-by-side comparison (streamlining demonstration) of all of the applicable requirements; including emission limits, monitoring, recordkeeping, and reporting requirements; and not just the emission limits. This demonstration should be included in the PRR. Different limit formats (different “units” of measurement) require a detailed discussion to demonstrate which limit is more stringent, including a conversion factor established to allow for conversion from one unit of measure to another. In determining the stringency of an emission limit, the averaging times should be reviewed closely. The streamlining demonstration involving all applicable requirements that the facility or NYSDEC seeks to streamline (if this would be the case), should be provided to EPA promptly upon it becoming available from the facility.

4. Lack of Permit Shield for Several Applicable Requirements

In the “Notification of General Permittee Obligations” section of the draft permit, Item I, is titled “Permit Shield - 6 NYCRR 201-6.4 (g).” Consistent with CAA §§ 504(f), 40 CFR § 70.6(f), and 6 NYCRR 201-6.4(g), Item I provides, in pertinent part, “compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof.” As discussed in this letter, the draft permit fails to include applicable requirements from several federal standards, regulations, and a

SIP-approved rule (NSPS GG, NSPS Da, NSPS Dc, 40 CFR 52.21, NO_x RACT rule). A title V facility can only be shielded from requirements that are addressed in the title V permit. Accordingly, if the Caithness title V permit were to be finalized without further revision, it is our position that the permit shield provision does not extend to the requirements of the above-mentioned federal standards and regulation, and SIP approved rule. By virtue of their omission, these requirements are not addressed in the title V permit.

II. Permit Review Report

The NYSDEC, in its Response to EPA's 5/23/2018 comments, states that the NSPS Subpart Kb "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984" (NSPS Kb), does not apply to the fuel oil storage tank at Caithness. However, neither the PRR nor the application includes any information supporting that NSPS Kb does not apply to the fuel oil storage tank at the facility. Please include a brief discussion in the PRR documenting that the NSPS Kb does not apply to the Caithness' storage tank.

III. Acid Rain Draft Permit

1. Condition 43 of the document titled, "title IV and title V draft permit for Caithness," which appears on the NYSDEC website states that the facility is subject to the federal title IV Acid Rain Regulations and that "the Acid Rain Permit is an attachment to this permit." However, the Acid Rain permit is not included in the electronic version of that document. In order to avoid any confusion regarding this issue, please revise Condition 43 to read as indicated below. This language was included in the proposed title V permit for Samuel Carlson Generation Station issued by DEC R9.

"Item 43.1: This facility is subject to the Title IV Acid Rain Regulations found in Parts 72, 73, 75, 76, 77 and 78. In accordance with those requirements, a separate title IV Acid Rain Phase II permit has been issued to the facility. The facility owner shall maintain a copy of the title IV Acid Rain together with this title V Permit in the facility's files."

2. Please make sure that the title IV Phase II permit application is attached to the title IV Phase II final permit when it is issued to Caithness. This is consistent with 40 CFR 72.50 (a), which provides that an Acid Rain permit "will contain all elements required for a complete Acid Rain application under § 72.31." The elements of the application include standard requirements such as "Permit Requirements, Monitoring Requirements, Sulfur Dioxide Requirements, Nitrogen Oxides Requirements, Excess Emissions Requirements, Recordkeeping and Reporting Requirements, Liability, and Effect on Other Authorities." Condition 1.a of the Caithness title IV Phase II draft permit properly addresses this requirement by stating that the owner shall comply with the standards requirements and special provisions included in an attached Acid Rain Phase II application. Therefore, the title IV Phase II permit application must be attached to the title IV Phase II final permit when issued.