



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

September 9, 2021

Mr. Michael Higgins
NYSDEC
Division of Environmental Permits
Bureau of Energy Project
625 Broadway
Albany, NY 12233-1750
michael.higgins@dec.ny.gov

Re: Combined Draft PSD, NNSR and title V Operating Permit for Danskammer Energy LLC
Permit ID # 3-3346-00011/00017, Newburgh, Orange County, NY

Dear Mr. Higgins:

The purpose of this letter is to provide comments on the combined draft PSD, NNSR and title V operating permit¹ for Danskammer Energy LLC (“Danskammer” or “facility”) that the New York State Department of Environmental Conservation Region 3 office (NYSDEC) issued for a 60-day public review on June 30, 2021. The public comment period has subsequently been extended by 15 days to September 13, 2021.

The draft permit authorizes Danskammer the installation and operation of a new combined-cycle unit (CCU) that would supply about 536 MW net electrical power output to the grid following electrical demand (i.e., dispatch mode), which consists of a Mitsubishi M 501 JAC combustion turbine (CT) rated at 3,315 MMBTU/hr, a Heat Recovery Steam Generator (HRSG), a 744 MMBTU/hr duct burner (DB), and a steam turbine generator. The CT will be permitted to combust natural gas as the primary fuel with ultra-low sulfur fuel oil as a back-up fuel and the DB will be permitted to combust only natural gas. The CU and DB will use dry low NO_x combustors², water injection³ and SCR for the control of NO_x emissions, and oxidation catalyst for the control of CO, VOC, and HAPs. The auxiliary equipment includes a new 96 MMBTU/hr natural gas-fired boiler, a 2,000 kW (2,682 BHP) new emergency diesel engine, and a 327 BHP new emergency diesel fire pump engine. The boiler which uses a low NO_x burner to control NO_x emissions will support startup and shutdown operations of the CT and will operate simultaneously with the CT. Once the new CCU will become operational, the Danskammer’s four existing steam generating boilers will be retired.

Danskammer is an existing major source under the Prevention of Significant Deterioration (PSD) of Air Quality and Nonattainment New Source Review (NNSR) programs⁴, so the proposed project constitutes a modification to an existing major source. Based on the draft permit, it appears that the NYSDEC has determined that the proposed project would be a major modification subject to PSD requirements for CO, H₂SO₄, PM/PM₁₀/PM_{2.5} and GHG

¹ This permitting action constitutes a significant or major modification of the facility’s current title V operating permit

² Dry low NO_x combustors will be used in addition to SCR, while firing natural gas.

³ Water injection will be used in addition to SCR, while firing fuel oil.

⁴ The EPA has approved New York’s NNSR and PSD regulations contained in 6 NYCRR Part 231 as consistent with the requirements of 40 CFR § 51.165 and 40 CFR § 51.166, respectively.

emissions, and to NNSR requirements for NO_x and VOC.

The NYSDEC did not notify the U.S. Environmental Protection Agency (EPA) Region 2 of the availability of the Danskammer draft permit for public comment. We only learned about it on August 25, 2021 from the NYSDEC's draft title V permits webpage. When we requested a copy of the application and all pertinent documents, our request was only partially⁵ responded to as of September 7, 2021. Given that the public comment/review period is set to end on September 13, 2021 and the NYSDEC's delay in providing the application to EPA, we are providing comments based on our limited review of the draft permit, permit review report (PRR), and application, so that the NYSDEC will be aware of the issues and have an opportunity to address them prior to sending EPA the proposed title V permit for our 45-day review. Please note that in addition to the comments we are submitting today, our review of the proposed permit, including any new or revised permit conditions or terms, application, and pertinent documents (which were not yet provided) may, likely, generate additional comments. We have identified several significant concerns regarding the draft permit and PRR. Our overarching concerns are as follows:

- 1) The draft permit omits applicable requirements: BACT and/or LAER limits and Potential to Emit limitations for NO_x, CO, VOC, H₂SO₄, PM/PM₁₀/PM_{2.5}, and GHG; applicable federal standards and regulations; and NYSDEC's SIP-approved regulations.
- 2) The PRR and NYSDEC's ENB Public Notice did not provide for appropriate public participation in the air permitting process and the PRR does not meet the requirements of 40 CFR §70.7(a)(5).

As discussed below, if the Danskammer draft permit is finalized without further revision, it is our position that it does not comply with the applicable Clean Air Act (CAA) requirements, NYSDEC's SIP approved air regulations, and federal regulations and standards. To ensure that the draft permit complies with the aforementioned requirements, and the permit record adequately supports the NYSDEC's permit decision, EPA recommends that the NYSDEC address the comments included in Enclosure A.

We look forward to working with you to address these 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 contact Viorica Petriman at 212-637-4021 or petriman.viorica@epa.gov.

Sincerely,

Suilin W. Chan, Chief
Permitting Section
Air and Radiation Division

⁵ The 9/7/2021 NYSDEC submittal did not include the manufacturer specifications/guarantees for the SCR, Oxidation Catalysts and Turbine, EPA certifications for the emergency engine and fire pump.

Enclosure

cc: Christopher LaLone, NYSDEC
Michael Cronin, NYSDEC

ENCLOSURE A

I. Non-Compliance with CAA §§ 504(a) and (c), 40 CFR § 70.6, and 6 NYCRR 201-6.4

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 Danskammer draft permit must be revised to comply with the provisions of CAA §§ 504(a) and (c), 40 CFR § 70.6(a)(1) and (3), and 6 NYCRR 201-6.4.

A. Best Available Control Technology (BACT) Requirements

BACT emission limits and associated monitoring, recordkeeping and reporting requirements that apply to the emission sources at Danskammer are applicable requirements that must be included in the draft permit.

1. Sulfuric Acid Mist (H₂SO₄) BACT Emission Limits for Boiler, Emergency Engine and Fire Pump Omitted from Draft Permit

The draft permit omitted the H₂SO₄ BACT emission limits for the boiler, emergency diesel engine (emergency engine) and emergency diesel fire pump engine (fire pump). These BACT emission limits and their associated monitoring, recordkeeping and reporting requirements should be included in the draft permit for these emission sources.

2. GHG BACT Emission Limits for Combustion Turbine, Boiler, Emergency Engine and Fire Pump Omitted from Draft Permit

- a. The draft permit omitted BACT emission limits for the GHG emissions (as CO₂e) resulting from the combustion turbine (CT) and duct burner (DB), which should be in the form of lb of CO₂e/MW-hr or other form of a short term CO₂e limit, consistent with other BACT GHG determinations for combustion turbines. BACT CO₂e emission limits for the boiler, emergency engine and fire pump were also missing. The GHG BACT emission limits along with their associated monitoring, recordkeeping and reporting requirements should be included in the draft permit for these emission sources.
- b. Electrical switchyards (e.g., circuit breakers or CBs) and natural gas handling and piping system (NGHPS), which are, usually, part of combustion turbines projects have the potential to emit GHG such as sulfur hexafluoride (“SF₆”) (from CBs) and methane (“CH₄”) (from NGHPS), as fugitive emissions from equipment leaks. As described on the EPA web site⁶, SF₆ is “the most potent greenhouse gas known to-date. Over a 100-year period, SF₆ is 22,800 times more effective at trapping infrared radiation than an

⁶ See additional information at <https://www.epa.gov/eps-partnership/sulfur-hexafluoride-sf6-basics>

equivalent amount of carbon dioxide (CO₂). SF₆ is also a very stable chemical, with an atmospheric lifetime of 3,200 years. As the gas is emitted, it accumulates in the atmosphere in an essentially un-degraded state for many centuries. Thus, a relatively small amount of SF₆ can have a significant impact on global climate change.” However, there are SF₆-free circuit breakers commercially available for a variety of voltage requirements. The PRR or application do not include any information as to whether the proposed project includes any CBs or NGHPS.

- i. The facility should clarify if the proposed project includes CBs and NGHPS. If, CBs and NGHPS are part of the project, the application should be updated to (1) include a description of the CBs and NGHPS (emission sources) ; (2) provide estimates for SF₆ emissions, if SF₆-free CBs were not selected, and CH₄ emissions; (3) propose GHG BACT emission limits for these emission sources; (4) establish measures and methods for minimizing the GHG emissions, as well as monitoring and recordkeeping methods.
- ii. The draft permit should be revised accordingly, to include the CBs and NGHPS as emission sources; specify the GHG BACT emission limits, in the form of CO₂e, for each CB and NGHPS; include all the measures proposed by the facility for minimizing the GHG emissions; and include all appropriate monitoring and recordkeeping requirements.

3. NO_x - Subject to both BACT and LAER, Averaging Period for BACT and LAER NO_x Emission Limit

- a. Since NO_x is subject to both BACT and LAER, though not reflected in the permit or discussed in the PRR, all draft permit conditions which are meant to establish LAER limits for NO_x for each of the project’s emission sources, should indicate that the limit satisfies both BACT and LAER requirements.
- b. The averaging period for BACT and LAER NO_x emission limits established for combined cycle combustion turbines in prior air permits issued by air permitting authorities, including the NYSDEC and EPA has been “1-hour average.” Thus, the averaging period of “3-hour block average” that appears in each of the draft permit conditions that establish NO_x LAER limits for the CT with or without DB should be revised to “1-hour average” to conform with the NO₂ NAAQS. As noted above, the draft permit should be revised to explicitly state that the NO_x limit(s) are both a BACT and a LAER limit.

4. NO_x, CO, VOC, and PM/PM₁₀/PM_{2.5} BACT and LAER Emission Limits for Turbine Startup and Shutdown Periods Omitted from Draft Permit

The draft permit Conditions 1-17, 1-22, 1-24, 1-25, 1-26, 1-30, 1-35, 1-38, and 1-39 that establish NO_x, CO, VOC, and PM/PM₁₀/PM_{2.5} BACT and LAER emission limits in the form of “ppmvd@15%O₂” or “lb/MMBTU” for the CT and DB, while firing natural gas and fuel oil, state that those BACT and LAER emission limits apply only during normal loads and exclude

periods of startup and shutdown. The draft permit failed to specify what NO_x, CO, VOC, and PM/PM₁₀/PM_{2.5} BACT and LAER emission limits apply during startup and shutdown.

BACT and LAER emission limits should apply at all times, including periods of startup and shutdown. Consistent with EPA guidance and Environmental Appeal Board Decisions⁷, if BACT or LAER emission limits specified during normal load operation (or steady state operation) are not feasible under certain conditions (such as startup, shutdown, and fuel switching), a permitting authority can make an on-the-record determination that such compliance is infeasible and create a secondary BACT or LAER limit(s) for those events. The permit must also describe what measures will be undertaken to minimize emissions during those events, and demonstrate that the secondary BACT or LAER limit(s) are in compliance with all applicable requirements, including NAAQS and PSD increments.

- a. The draft permit for Danskammer should include NO_x, CO, VOC, and PM/PM₁₀/PM_{2.5} BACT and LAER limits that apply to each cold, warm and hot startup, and shutdown of the CT. The “lb of pollutant/startup (cold, warm, and hot) and shut down event” included in the application, as provided by the turbine’s manufacturer, could be included as BACT limits in the draft permit. The inclusion of BACT and LAER limits as “lb/event” is consistent with prior air permits issued by air permitting authorities⁸ across the country and by the EPA⁹.
- b. The draft permit should be revised by adding a condition clarifying what “normal loads” means in terms of MMBTU/hr.

5. Startup and Shutdown Periods Definitions and Durations for the CT Omitted from Draft Permit

The draft permit should be revised to include the following as they were included in the application and consistent with prior air permits issued by NYSDEC: (1) definitions for each cold, warm, and hot startups and shutdowns; (2) number of each type of startup and shutdown events allowed per year and per type of fuel combusted by the CT; and (3) duration of each type of startups and shutdown events.

6. Heat Rate Limit - Insufficient Monitoring & Other Clarifications

Condition 1-29 of the draft permit cites to 6 NYCRR 231-8.7 and establishes a heat rate limit of 6,925 BTU/kW-hr for the CT on natural gas and without DB. This condition states the limit is

⁷ See *In re: Tallmadge Generating Station*, PSD Appeal No. 02-12, (EAB, May 22, 2003) and *In re: Rockgen Energy Center*, PSD Appeal No. 99-1, (EAB, August 25, 1999).

⁸ See PSD Air Permit issued by NJDEP on 9/13/2021 for Newark Energy Center (combined cycle turbines), which can be find at <https://www13.state.nj.us/DataMiner/Report/ReportCriteria?APIKEY=NDEP&showheader=y&isExternal=y&getCriteria=y&BOReportName=Title+V+Permit+Report>

⁹ See PSD Air Permit issued by EPA R2 on 4/7/2006 and revised on 8/19/2020 for Caithness Long Island LLC, which can be find at <https://www.epa.gov/caa-permitting/caithness-long-island-llc-brookhaven-ny-4>; and PSD Air Permit issued by EPA R1 on 4/12/2012 for Pioneer Valley, which can be find at <https://www.epa.gov/sites/default/files/2015-08/documents/pvec-final-permit-decision-april2012.pdf>

based on the higher heating value (HHV) of the fuel, gross power output, at baseload, and International Organization of Standardization (“ISO”) conditions. Based on the application, this heat rate limit is designated as a measure to minimize the GHG emissions, which are subject to BACT. This condition requires that compliance with the heat rate limit shall be verified via an “initial performance test” and “subsequent tests, every five years”. Please address the following regarding the heat rate limit:

- a. The initial and every 5 years performance test measurement is not a sufficient monitoring requirement for assuring compliance with this heat rate limit. The draft permit must be revised to require Danskammer to continuously monitor the heat rate.
- b. Explain in Condition 1-29 or elsewhere in the draft permit what “baseload” means.
- c. Explain in the PRR why the heat rate limit in the draft permit only applies when the CT combusts natural gas without DB, and not when the CT combusts natural gas with the DB, or when the CT combusts fuel oil.

B. Potential to Emit Limitations Requirements of 6 NYCRR Subparts 231-6.4(a)(1) and 231-8.6(a) Omitted from Draft Permit

The draft permit fails to include the Potential to Emit (PTE) as emission limits for each attainment and nonattainment pollutant (of the proposed project) that is subject to PSD or NNSR, as it is required by 6 NYCRR Subparts 231-6.4(a)¹⁰ and 231-8.6(a)¹¹. The draft permit should be revised to include the PTE of NO_x, CO, VOC, H₂SO₄, PM/PM₁₀/PM_{2.5} and GHG (in CO_{2e}) that were part of the PSD and NNSR applicability determinations as emission limits. In order to ensure that the PTE limits are federally and practically enforceable and consistent with the NYSDEC’s DAR-17/Federal Enforceability of Air Pollution Control Permits (which in turn is consistent with the EPA guidance and regulations), NYSDEC must follow the procedures below:

- a. The draft permit conditions containing PTE limits should (1) list the respective emission sources that are covered under each emission limit; (2) require that all emissions resulting from each emission source, including startup, shutdown, and shakedown (if applicable) emissions be included in the calculation of actual emissions for demonstrating compliance with each PTE limit; and (3) specify the emission factors for each pollutant that is not measured via CEMS that Danskammer should use to calculate the actual emissions during steady state, startup, shutdown, and shakedown (if applicable), for compliance demonstration purposes.

¹⁰ 6 NYCRR Subpart 231-6.4(a)(1) reads in part as follows “The permit content and terms of issuance for an NSR major modification are set forth generally in Subpart 231-11 of this Part. In addition, the following provisions apply:

(a) The following emission limitations, as applicable, shall be established in a permit:

(1) the projected actual emissions or potential to emit, as appropriate, of each applicable nonattainment contaminant(s) for a proposed NSR major modification...”

¹¹ 6 NYCRR Subpart 231-8.6(a) reads as follows” The permit content and terms of issuance for a NSR major modification are set forth generally in Subpart 231-11 of this Part. In addition, the following emission limitations, as applicable, shall be established in a permit:

(a) The projected actual emissions or potential to emit, as appropriate of each applicable regulated NSR contaminant(s) for a proposed NSR major modification.”

- b. The following assumptions made by Danskammer in its application in establishing the PTE of NO_x, CO, VOC, H₂SO₄, PM/PM₁₀/PM_{2.5} and GHG (in CO₂e), must also be included as limits in the draft permit:
- 4,380 hours/yr of DB operation;
 - 720 hr/yr of CT operation on fuel oil;
 - 10 cold startups/shutdowns events/yr, 52 warm startups/shutdowns/yr, and 200 hot startups/shutdowns/yr for CT on natural gas;
 - 2 cold startups/shutdowns/yr, 3 warm startups/shutdowns/yr, and 5 hot startups/shutdowns/yr for CT on fuel oil;
 - 0.6 hr/each cold and warm startup event, 0.5 hr/each hot startup event for CT on natural gas;
 - 0.8 hr/each cold, warm and hot startup event for CT on fuel oil;
 - 0.2 hr/each shutdown event for CT on either natural gas or fuel oil;
 - 4,800 hours/yr of boiler operation; and
 - 250 hours/yr of operation of each emergency engine and fire pump.

7. Monitoring Requirements for Assuring Enforceable BACT and LAER Emissions Limits and Limits on the PTE for BACT and LAER Pollutants

- a. The draft permit shall require Danskammer to comply with the following monitoring requirements to ensure enforceability of the BACT and LAER emission limits and PTE limits:
1. Install, certify, maintain, and continuously operate a CO₂ Continuous Emission Monitoring System (CEMS) for the CT and DB in accordance with the applicable requirements of 40 CFR Part 75.
 2. Measure and record the actual heat input (BTU) of the CT and DB on an hourly basis in accordance with 40 CFR Part 75.
 3. Install, operate, and maintain a certified pipeline natural gas flow meter and a certified ULSD fuel oil flow meter that satisfy the requirements of 40 CFR Part 75 to continuously monitor the fuel flow to the CT and DB.
 4. Measure continuously and record the following on an hourly basis:
 - i. Gross electrical output of the CT (MW)
 - ii. CO₂ mass emission rate (tons or lb CO₂/hr) for the CT and DB.
 5. Install and maintain a non-resettable elapsed operating hour meter or equivalent software to accurately indicate the date and hours that the CT, DB, boiler, emergency engine and fire pump operated.
 6. Record the time period when the CT operated as steady state, startup (cold, warm, and hot), or shutdown .

7. Calculate and record the emission rate of GHG in lb CO₂e/MW-hr for the CT and DB during each hour in which power is being generated by the CT.
8. Calculate and record the BTU/kW-hr for the CT during each hour in which power is being generated by the CT.

C. Federal Standards, Federal Regulation and SIP-Approved Regulation Requirements Omitted from Draft Permit

1. Requirements from the following federal standards that apply to the new turbine and DB were omitted from the draft permit:
 - a. 40 CFR 60 Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
 - b. 40 CFR 60 Subpart TTTT - Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units
2. Requirements from the following federal standard that apply to the new boiler were omitted from the draft permit:

40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
3. Requirements from the following federal standards that apply to the new emergency engine and new fire pump engine were omitted from the draft permit:
 - a. 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
 - b. 40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
4. Requirements from the following federal standard that apply to the storage tank were omitted from the draft permit:

40 CFR 60 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)

Condition 1-46 of the draft permit, which cites to 40 CFR 60 Subpart Kb, references EU: U-DEC01, and Process: 003, which is the CT on fuel oil. The draft permit should be revised by including the Danskammer storage tank, which is subject to NSPS Kb, as an emission source, as a CT cannot be subject to NSPS Kb.

5. Requirements from 6 NYCRR Subpart 227-2 “Reasonably Available Control Technology (RACT) for Major Facilities of Oxides of Nitrogen (NO_x)” that apply to the CT, DB and boiler were omitted from the draft permit.

The draft permit should be revised to include all applicable requirements that apply to each CT, DB, boiler, emergency engine, fire pump and storage tank from the above-mentioned federal standards and SIP-approved regulations .

6. 40 CFR Part 64 – Compliance Assurance Monitoring (CAM) Requirements

Danskammer is subject to the CAM rule requirements for the VOC emissions resulting from the CT which would be controlled by an oxidation catalyst (an add-on control device).

The CAM rule was designed to ensure source owners or operators of large emission units at title V facilities that use add-on control devices detect and quickly correct problems associated with their emission control devices. Such activity helps owners and operators maintain their control devices at levels that assure compliance with their applicable requirements. CAM is intended to establish monitoring for a control device to ensure that once installed, it is properly operated and maintained so that compliance with an emission limit is continuously met. Regarding continuity, sources that remain major sources after application of control devices need to supply at least one indicator of compliance at least four times an hour; other sources need to provide at least one indicator of compliance at least once per day. The CAM rule allows the subject source to design a CAM plan and propose the plan to the permitting authority for approval. As specified at 40 CFR § 70.6 (a)(3)(i)A) and 6 NYCRR 201-6.4(b)(1), title V permits must include all applicable CAM requirements. The minimum monitoring requirements of Part 64 that need to be included in title V permits are specified at § 64.6(c)(1) through (c)(4) and are discussed below:

- As required by §64.6(c)(1)(i) through (iii), the approved monitoring approach includes (1) the indicators to be monitored (such as measuring temperature at the inlet/outlet of an oxidation catalyst, pressure drop, emissions, or similar parameter); (2) the method of measuring the indicators (such as a thermocouple for an oxidation catalyst, visual observation); and (3) the performance criteria established to satisfy § 64.3 (b) or (d) (e.g., degree Fahrenheit for temperature at inlet/outlet of an oxidation catalyst), as applicable, must be included in the permit.
- Pursuant to § 64.6(c)(2), a title V permit shall specify, at a minimum, the means of defining exceedances or excursions, the level which constitutes an exceedance or excursion, or the means by which that level will be defined; the averaging period associated with an exceedance or excursion; and the procedures for notifying the permitting authority of the establishment or reestablishment of any exceedance or excursion level.
- § 64.6(c)(3) addresses the obligation to conduct monitoring and satisfy the requirements of §§ 64.7 through 64.9.

- § 64.6(c)(4) requires that “the permit shall specify if appropriate, the minimum data availability requirement for valid data collection for each averaging period and if appropriate, for the averaging periods in a reporting period.”

The draft permit for Danskammer does not address the CAM Rule requirements, and the application did not include a CAM Plan prepared by Danskammer for the CT. The NYSDEC should ensure that all monitoring requirements at § 64.6(c)(1) through (c)(4) that apply to the oxidation catalyst (used for controlling VOC emissions from the CT), as well as the reporting and recordkeeping requirements at § 64.9 (a) and (b) are included in the draft permit. Each permit condition that addresses a CAM requirement should cite to the specific low-level provision of the CAM Rule as the underlying authority for the applicable requirement.

II. Other Issues

1. Design Heat Input (MMBTU/hr) of the Combustion Turbine – Clarifications

Condition 21, Item 21.1 of the draft permit states that the CT is rated at 3, 302 MMBTU/hr for natural gas at 100% load and 0⁰ F, and 3,315 MMBTU/hr for fuel oil at 100% load and 0⁰ F. However, Condition 46, states that the CT on fuel oil without DB is rated at 3,315 MMBTU/hr. The draft permit should be revised to:

- a. Address the above noted inconsistencies regarding the rated heat input (MMBTU/hr) of the CT;
- b. Clarify whether the rated heat input of the CT at 3,315 MMBTU/hr include the DB heat input or provide the rated heat input (MMBTU/hr) of the CT and DB, combined.

2. Sulfur content of Natural Gas Omitted from Draft Permit

The draft permit shall include the sulfur content of 0.5 grain S/100 standard cubic feet of natural gas that was used in the application for estimating the SO₂ emissions from the CT, DB, and boiler as a permit limit along with the necessary monitoring, recordkeeping, and reporting requirements.

3. Draft Permit Conditions – Clarifications

- a. Condition 1-12 of the draft permit cites to 6 NYCRR Subpart 211.2 and establishes an opacity limit and opacity monitoring requirements. To improve clarity of the permit, this condition should be revised to specify the emission sources at Danskammer to which this opacity limit applies.
- b. Condition 1-14 of the draft permit cites to 6 NYCRR Subpart 227-1.3(a) and establishes a PM limit of 0.1 lb/MMBTU for owners or operators of a stationary combustion installation. To improve clarity of the permit, this condition should be revised to specify the emission sources at Danskammer to which this PM limit applies.
- c. Conditions 1-16 and 1-17 of the draft permit cite to 6 NYCRR Subparts 227-1.4(a) and 227-1.5(b)(2) and establish an opacity limit and require the use of a Continuous Opacity Monitor

(COM). To improve clarity of the permit, these conditions should be revised to specify the emissions sources at Danskammer to which the opacity limit and the use of COM apply.

4. Emission Reduction Credits (ERCs) and Contemporaneous period

In order to avoid the NNSR review for the addition of the proposed project, the facility proposes to use emission reduction credits resulting from shutting down the existing boilers. Based on 6 NYCRR 231-4.1(b)(30)(iii), the ERCs used in determining the net emissions increase must be contemporaneous¹² with the particular project or modification. In order to ensure that the actual emission reductions to be used by Danskammer as ERCs will occur within the contemporaneous period, we recommend that the following or similar language be added to the permit:

“The shutdown of the existing boilers must occur prior to the “commencement of operation date” (as the term is defined in 6 NYCRR 231-4.1(b)(12)), of the proposed project. The facility must maintain and submit appropriate records to the NYSDEC for demonstrating compliance with this applicable requirement.”

“The facility is allowed a shakedown period for the proposed project that meets all applicable provisions of 6 NYCRR 231-3.8. The facility must maintain and submit appropriate records to the NYSDEC for demonstrating compliance with this applicable requirement.”

III. Streamlining in title V Permits

In order to conform with CAA §§ 504(a) and (c), 40 CFR § 70.6 and 6 NYCRR 201-6.4, the draft permit should include all applicable requirements from federal regulations and standards, as well as from NYSDEC 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. This is because the subsumed applicable requirements are still applicable requirements. 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

¹² Under 6 NYCRR 231-4.1(b)(13), “contemporaneous” is defined as “the period beginning five years prior to the proposed commence construction date of the new or modified emission source and ending with the proposed commence operation date.” “Commence(s) operation or commencement of operation” is defined in 6 NYCRR 231-4.1(b)(12) as “(i) the date that a proposed new or modified facility first emits or increases emissions of any regulated NSR contaminant to which this Part applies; or (ii) the date on which the facility shakedown period ends for a proposed modified facility which utilizes future ERCs for netting.”

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, not just the emission limits, and such 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.

Please provide us with the streamlining demonstration involving all applicable requirements that Danskammer or NYSDEC seek to streamline (if this would be the case), promptly upon it becoming available from the facility.

IV. Lack of Permit Shield for Several Applicable Requirements

In the “Notification of General Permittee Obligations” section of the draft permit, Item 1 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 SIP-approved rule (NSPS 4K, NSPS 4T, NSPS Dc, NSPS Kb, NSPS 4I, NESHAP 4Z, CAM Rule, NO_x RACT rule) which apply to the new CT, DB, boiler, emergency engine and fire pump. A title V facility can only be shielded from requirements that are addressed in the title V permit. Accordingly, if the Danskammer 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, CAM rule, and NO_x RACT rule which were omitted from the permit.

V. Permit Review Report and NYSDEC’s Public Notice on ENB

1. Permit Review Report Content Inadequate

As provided by the Division of Air Resources Internal Guidance (DAIG-10), and consistent with 40 CFR 70.7(a)(5) and EPA guidance, a PRR must provide “a legal and factual basis for the draft permit conditions” in a title V permit, and “provide a brief description of any major regulatory program (e.g., PSD, NNSR, NSPS, NESHAP, RACT) that will be invoked by the action, along with the basis of the requirements that are being implemented because of their applicability.” Also, a PRR is intended to support the requirements of CAA § 502(b)(6) by providing information to allow for “expeditious” evaluation of the permit terms and conditions, and by providing information that supports the public's participation in the permitting process.

As discussed below, the PRR for Danskammer failed to serve the purpose stated in 40 CFR §70.7(a)(5), DAIG-10 Guidance, and EPA guidance.

The Danskammer PRR is limited to providing a brief description of the scope of some federal standards and regulations or NYSDEC air regulations, without explaining why each standard or regulation is applicable, which specific portions/requirements of that standard or regulation apply and which emission source(s) at the facility are subject to those requirements. This is inconsistent with the DAIG-10 Guidance¹³. Further, while the Danskammer proposed project is subject to PSD and NNSR, the content of the PRR does not address the specific items which are prescribed by the DAIG-10 Guidance to be included in a PRR for projects subject to PSD and NNSR and PTE limits¹⁴. This PRR for Danskammer should be revised to be consistent with the DAIG-10 Guidance, 40 CFR 70.7(a)(5) and EPA guidance. A copy of the revised PRR should be submitted to EPA (and other commenters, as applicable) along with the proposed permit.

2. Inaccurate Description of the Permitting Action/Proposed Project in the PRR and NYSDEC ENB

The public notice posted on the NYSDEC's Environmental Notice Bulletin (ENB) and the PRR for Danskammer's draft permit did not provide for proper public participation notification as part of the air permitting process since they did not mention that the proposed project is subject to PSD and NNSR review and that the draft permit contains requirements from these regulations. It is crucial to include an accurate description of a proposed project and the major air regulations that apply to in the public notice so that the public can better understand the context of the permitting action for a more meaningful review of the draft permit. The NYSDEC should ensure that the content of future ENBs and PRRs serve the purpose of providing adequate information regarding the proposed project and draft permit conditions, to allow for an effective public engagement.

VI. Application Related Documents

Please include with the proposed permit a copy of the manufacturer's specifications/guarantees for the SCR, Oxidation Catalysts and Turbine and the EPA certifications for the emergency engine and fire pump, as these documents have been previously requested by EPA but have not been provided by NYSDEC.

¹³ This is from DAIG-10 Guidance: "Each Facility Specific Regulation description should describe how the requirement applies to the facility and how applicability was determined...A simplified description of why each regulation is applicable to the facility. The explanation should address how the requirement applies and how applicability was determined." "Each PRR should explain the rationale used when developing the permit, determining how compliance should be demonstrated".

¹⁴This is from DAIG-10 Guidance: "For projects subject to PSD, the basis for monitoring should address the control technologies established as BACT, the BACT numerical limit, netting analysis results (where applicable), and the air quality impact analysis results. For projects subject to Non-Attainment NSR (NNSR), the basis for monitoring should address the control technologies established as LAER, the LAER numerical limits, the amount of emission offsets, a brief description of the source(s) of the emission offsets, and the air impact analysis results. For projects that avoided applicability of PSD and/or NNSR, the basis for monitoring should include a brief discussion related to the PSD and or NNSR non-applicability analysis for the respective pollutants..."