NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 9
700 Delaware Avenue, Buffalo, NY 14209
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www.dec.ny.gov

July 13, 2022

Lewis L. Staley
Lockport Energy Association LP
5087 Junction Rd
Lockport, New York 14094

Dear Lewis L Staley:

NOTICE OF INCOMPLETE APPLICATION
FORTISTAR NORTH TONAWANDA INC
AIR TITLE V PERMIT RENEWAL
PERMIT NO. 9-2912-00059

The Department of Environmental Conservation (DEC) has received and is reviewing the April 23, 2021 Title V Air Permit application for Renewal 3 of the permit. After preliminary review the Department has determined that the application is incomplete. Please submit the following information for clarification on your proposed operations and application submission:

1. Please describe the proposed business relationship between Fortistar and Digihost including any plans for Digihost to take over daily operations.

2. Please clarify if Digihost will be submitting a transfer application once the permit is renewed or if Fortistar will be holding the permit and have a contract for operations with Digihost. As part of this description, please clarify what party will be the Legally Responsible entity for permit compliance.

3. Please submit a Climate Leadership and Community Protection Act (CLCPA) conformity review following the attached request and using the attached upstream emission factors. Consistency with the CLCPA is related to emissions resulting from current and future operating conditions. The conformity review must include the following:

    a. Actual GHG emissions from the facility, in tons per year and CO2e, for each year since 2015.

    b. Anticipated actual GHG emissions from the facility, based on anticipated operation of the facility, for each year of the proposed renewal term of the permit. All future emissions calculations must consider existing operational

restrictions, such as the existing permit condition which requires that except during periods of startup, malfunction and shutdown, the combustion turbine may fire distillate oil only while operating at 100% load and may operate at partial loads only while firing natural gas, between 80% and 100% load.

c. The current generating capacity and utilization rate of the facility and the planned future capacity and utilization rate of the facility. In addition, please discuss the portion of the facility's output that will be used for each mode of operation (e.g., electricity generation to the grid vs. on site consumption for blockchain operations), now and in the future.

d. Calculations showing the facility's projected Greenhouse Gas (GHG) and carbon dioxide equivalent (CO2e) emissions in the years 2030, 2040, and 2050. Discuss alternatives and/or mitigation measures for those emissions.

e. A discussion of the method(s) the facility will use to comply with the CLCPA's requirement for zero emissions from the electricity generation sector by 2040.

4. An inconsistency regarding the potential applicability of Prevention of Significant Deterioration (PSD) to this facility has been identified. In Section 3.0 of the Ren 3 application the potential to emit for NOx and CO are both identified as greater than 390 tons/year. This would make the facility PSD major. However, the current SAPA-extended Ren 2 Title V Air Permit DEC Permit Facility Description contains a paragraph which says, "The enforceable emission limits in the original Title V permit were established in order to avoid PSD regulations and will be retained. This Title V permit renewal evaluated a project entailing the addition of two duct burners; it was determined that the project did not trigger New Source Review (NSR) applicability under 6 NYCRR Part 231." The enforceable emission limits for NOx, CO, PM/PM-10, and VOC are in the permit as hourly limits for both allowed fuels (natural gas and distillate oil), with some additional limits placed on the amount of distillate oil or number of hours of operation on distillate oil that are allowed in a year. Please provide supporting information regarding the derivation of the enforceable emission limits which appear in the Ren 2 permit as well as the calculations for the PTE values which were provided in the Ren 3 application and explain the inconsistency.

5. The facility was previously requested to include updated information for the small auxiliary boiler stack. Based upon inspections the boiler no longer exhausts into the gas turbine stack but uses a dedicated emission point. Please provide updated information.

6. Appendix F of the application contains a copy of the NOx Reasonably Available Control Technology (RACT) evaluation that was performed in 2016 for the Ren 2 permit renewal. The facility is required by 6NYCRR Part 227-2.4(e) to re-evaluate NOx RACT compliance with each permit renewal. Please provide an updated evaluation.

DEC may request additional information as staff continue reviewing the Renewal 3 Title V Air permit application. Please submit a reply with the requested information by September 15, 2022.

If you have any questions, please feel free to contact Kerri Pickard-DePriest of my staff or me at 716/851-7130. Questions related to the air permit can be directed to Michael Emery or Donna Kiersz at 716-851-7130.

Respectfully,

David S. Denk

David S. Denk
Regional Permit Administrator

KPD:ME

Attachments: 1) CLCPA Request, 2) CLCPA Appendix A Emission Factors 2021 NYS Statewide GHG Emissions Report

ecc: Maureen Brady, NYSDEC Region 9, Office of General Counsel
Michael Emery, NYSDEC Region 9, Division of Air Resources
Donna Kiersz, NYSDEC Region 9, Division of Air Resources
Kerrie Pickard-DePriest, NYSDEC Region 9, Division of Environmental Permits
Daniel Rotunno, Fortistar

FORTISTAR NORTH TONAWANDA LLC

1070 Erie Avenue
North Tonawanda, New York 14120

September 15, 2022

Mr. David S. Denk
Regional Air Pollution Control Engineer
Regional Permit Administer
New York State Department of Environmental Conservation
700 Delaware Avenue
Buffalo, New York 14209

Subject: Notice of Incomplete Application Dated July 13, 2022
Fortistar North Tonawanda, Inc.
Title V Air Permit; DEC ID 9-2912-00059

Dear Mr. Denk,

This letter is in response to your July 13, 2022 letter informing Fortistar North Tonawanda LLC ("NT")1. of the Notice of Incomplete Application for the Title V permit renewal. The following items are listed in order of your request for additional information as per your letter.

Item 1: Describe the proposed business relations between NT and Digihost including any plans for Digihost taking over daily operations.

NT Response:
On March 17, 2021 North Tonawanda Holdings LLC ("Holdings"), the 100% owner of NT, and Digihost International Inc. ("Digihost") entered into a Membership Interest Purchase Agreement ("MIPA"). Under the terms of the MIPA, as amended, Digihost, upon obtaining all necessary regulatory approvals and the satisfaction of other MIPA closing conditions, will purchase 100% of the membership interest in NT. The outside closing date pursuant to the MIPA is May 1, 2023. Holdings and Digihost are not affiliates nor does there exist any common control.

Upon Digihost's purchase of the membership interests in NT, Digihost will control NT's operations. It is however anticipated that Fortistar Services 2 LLC ("Services 2"), an affiliate of Holdings, will provide, pursuant to a services agreement, limited management and general and administrative services such as accounting and general oversite of the contract operator, NAES, as well as energy market and fuel procurement consulting services to Digihost.

Item 2: Please clarify if Digihost will be submitting a transfer application once the permit is renewed or if NT will be holding the permit and have a contract for operations with Digihost. Please clarify what party will be the legally responsible entity for permit compliance.

1. Effective April 25, 2018 Fortistar North Tonawanda Inc. converted from a corporation to a limited liability company and changed its name to Fortistar North Tonawanda LLC.

NT Response:
NT is the current applicant and will remain the permit holder and legally responsible entity for permit compliance up to the completion of the purchase and sale transaction between Holdings and Digihost. Upon the successful completion of the transaction, Digihost will control NT's operations and will submit notice of the transaction to the Department.

Item 3: Please submit a CLCPA conformity review using upstream emission factors. Consistency with the CLCPA is related to emissions resulting from current and future conditions. The review will include the following:

Item 3a: Actual GHG emissions from the facility in tons per year and CO2e from 2015 to current.

NT Response: Data analysis performed by All4. See attachment #1

Item 3b: Anticipated actual GHG emissions from the facility based on anticipated operation of the facility for each year of the proposed renewal term of the permit. All future emissions calculations must consider existing operational restrictions such as the existing permit condition which requires that except during periods of startup, shutdown and malfunction, GT firing oil only while at 100% load and may operate at partial loads only while firing natural gas between 80%-100%.

NT Response: Data analysis performed by All4. See attachment #1

Item 3c: The current generating capacity and utilization rate of the facility and the planned future capacity and utilization rate of the facility. In addition, discuss the portion of the facilities pitput that will be used for each mode of operation (e.g. electricity generation to the grid vs. onsite consumption for blockchain operations now and in the future.

NT Response: Data analysis performed by All4. See attachment #1

Item 3d: Calculations showing the facility projected greenhouse gas and CO2e emissions in the years 2030, 2040 and 2050. Discuss alternatives and/or mitigation measures for those emissions.

NT Response: Data analysis performed by All4. See attachment #1

Item 3e: A discussion of the methods the facility will use to comply with the CLCP's requirement for zero emissions from the electricity generation sector by 2040.

NT Response:

Response is also included in attachment #1.

Item 4: An inconsistency regarding the potential applicability of Prevention of Significant Deterioration (PSD) to this facility has been identified. In Section 3.0 of the Ren 3 application the potential to emit for NOx and CO are both identified as greater than 390 tons/year. This would make the facility PSD major. However, the current SAPA-extended Ren 2 Title V Air Permit DEC Permit Facility Description contains a paragraph which says, "The enforceable emission limits in the original Title V permit were established in order to avoid PSD regulations and will be retained. This Title V permit renewal evaluated a project entailing the addition of two duct burners; it was determined that the project did not trigger New Source Review (NSR) applicability under 6 NYCRR Part 231." The enforceable emission limits for NOx, CO, PM/PM-10, and VOC are in the permit as hourly limits for both allowed fuels (natural gas and distillate oil), with some additional limits placed on the amount of distillate oil or number of hours of operation on distillate oil that are allowed in a year. Please provide supporting information regarding the derivation of the enforceable emission limits which appear in the Ren 2 permit as well as the calculations for the PTE

values which were provided in the Ren 3 application and explain the inconsistency.

NT Response: A review of Section 3.0 of the application as referenced in the letter, specifically related to the NOx and CO potential-to-emit (PTE) calculations. We determined that the PTE calculation spreadsheet inadvertently included calculation errors. Specifically, the spreadsheet added all turbine operating scenarios in the PTE instead of including only the highest scenario as the potential to emit. It is clear that the unit cannot operate on all scenarios simultaneously. The spreadsheet included an incorrect unit heat input that increased the emissions. The revised heat input is now consistent with previous submittals. Lastly, the CO calculation inadvertently used the NOx factor for CO lb/scf-ppm the CO calculations, which increased the estimated emissions by an order of magnitude. This factor converts the measured ppm by volume to a mass. The NOx factor is 1.1194 x 10-7 and the CO factor is 7.27 x 10-8. With these corrections the turbine PTE calculations for NOx and CO are 214 and 207 tons per year, respectively.

Item 5: The facility was previously requested to include updated information for the small auxiliary boiler stack. Based upon inspections the boiler no longer exhausts into the gas turbine stack but uses a dedicated emission point. Please provide updated information.

NT Response: NAES Environmental services reviewed the data with NT regarding the small auxiliary boiler (source ES00002) information and was provided with the following corrected information for the small auxiliary boiler stack:

Emission Unit	U00002	**Emission Pt.**	00002			
Ground Elev. (ft)	**Height (ft)**	**Height Above Structure (ft)**	**Inside Diameter (in)**	**Exit Temp (F)**	**Cross Section**	
					Length (in)	Width (in)
Exit Velocity (FPS)	**Exit Flow (ACFM)**	**NYTM (E) (KM)**	**NYTM (N) (KM)**	**Building**	**Distance to Property Line (ft)**	**Date of Removal**
		186.082	4773.436	Powerhouse	260	

No other information related to the boiler including fuel use and capacity has changed.

Item 6: Appendix F of the application contained 2016 RACT evaluation but required an updated evaluation.

NT Response: Updated RACT analysis performed by All4. See attachment #2.

Thank you for your time and consideration in this matter. If you have any questions, please contact me at 716-439-1283 X108 or via email at drotunno@naeslcf.com.

Sincerely,

Daniel Rotunno
Plant Manager

cc: Donna Kiersz – via email
cc: Mike Emery – via email

Attachment 1

CLIMATE LEADERSHIP AND COMMUNITY PROTECTION ACT (CLCPA)

CONFORMITY REVIEW

SEPTEMBER 2022

SUBMITTED BY:

NAES

SUBMITTED TO:

NEW YORK STATE

North American Energy Services
Fortistar North Tonawanda LLC
1070 Erie Avenue
North Tonawanda, NY 14120

New York State
Department of Environmental Conservation
Division of Environmental Permits, Region 9
700 Delaware Avenue
Buffalo, NY 14203

ALL4 Contact Information: info@all4inc.com | 610.933.5246 | www.all4inc.com

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1. INTRODUCTION AND BACKGROUND INFORMATION

1.1 FACILITY DESCRIPTION & PERMITTING HISTORY

The NAES Corporation (NAES) operates the Fortistar North Tonawanda LLC[1] (FNT) cogeneration plant (Facility) located in North Tonawanda, New York. The Facility is classified as a major source as defined by the federal operating permit program (40 CFR Part 70). In addition, the Facility is also subject to subject to 6 New York Codes, Rules and Regulations (NYCRR) Section 201-6 (Title V Facility Permits) under Subchapter A (Prevention and Control of Air Contamination and Air Pollution). The Facility currently operates under Title V Permit No. 9-2912-00059/00013 (Permit). FNT submitted an application to renew the Permit (Application) to NYSDEC on April 21, 2021.

1.2 NYSDEC REQUEST FOR CLCPA CONFORMITY REVIEW

In July 2019, New York State passed the Climate Leadership and Community Protection Act (CLCPA) with the intention of reducing greenhouse gas (GHG) emissions and associated climate impacts. The CLCPA requires the New York State Department of Environmental Conservation (NYSDEC) and other agencies to evaluate statewide GHG emissions and subsequently promulgate regulations that will reduce emissions of GHG.

NYSDEC has provided guidance which states that all new Air State Facility (ASF) permit applications, Title V permit applications, and significant modifications to existing permits must include an evaluation of climate impacts. Further, the NYSDEC guidance[2] dated February 2021 requires evaluation of upstream and downstream emissions from natural gas transmission for natural gas-fired units. Additional guidance from NYSDEC states that facilities located in Potential

[1] Effective April 25, 2018 Fortistar North Tonawanda Inc. converted from a corporation to a limited liability company and changed its name to Fortistar North Tonawanda LLC.
[2] DAR-21. The Climate Leadership and Community Protection Act and Air Permit Applications. New York State Department of Environmental Conservation. February 2021.

Environmental Justice Areas (PEJA) shall include an evaluation of the impact of co-pollutants on disadvantaged communities in addition to an evaluation of climate impacts.

On July 13, 2022, NYSDEC issued a Notice of Incomplete Application (NOIA) to FNT in response to its administrative review of the Application. Pursuant to Section 7(2) of the CLCPA, Item 3 of the NOIA requested a conformity review to provide a historical and projected future inventory of the Facility's GHG emissions and a discussion of the method(s) the Facility will use to comply with the CLCPA's requirement for zero emissions from the electricity generation sector by 2040. A copy of the NOIA is provided in Attachment A. The remainder of this document represents FNT's conformity review demonstrating that the Facility's proposed operation is consistent with the CLCPA.

2. EMISSION UNIT DESCRIPTION

The Facility generates steam and electric power using a stationary combustion turbine (CT), heat recovery steam generator (HRSG) equipped with two duct burners, and a steam turbine generator (U-00001). A small auxiliary boiler (ES0002) assists with startup and other Facility needs. The Facility also operates a primary diesel emergency generator engine (U-00002) and a secondary diesel starting motor (U-00003) used to rotate the CT to a speed at which it can be fired. A larger standby natural gas-fired auxiliary boiler (U-00004) is used to supply heating and other process steam loads when the CT is off-line. Table 2-1 summarizes the units at the Facility that are subject to the CLCPA.

Table 2-1
GHG-Emitting Sources Subject to the CLCPA

Emission Unit	Emission Source ID	Description	Rated Capacity
U-00001	ES00001	55 MW natural gas and oil-fired combustion turbine with HRSG	55-MW
	ES00001	Two duct burners	18.8 MMBtu/hr each
	ES00002	Cleaver Brooks 200-20-150 natural gas and distillate oil-fired boiler	10.5 MMBtu/hr
U-00002	ES00003	Caterpillar 3512 DITA emergency generator	10.5 MMBtu/hr
U-00003	ES00004	Detroit Diesel 660 HP starting motor	4.3 MMBtu/hr
U-00004	ES00006	Cleaver Brooks Steam Unit natural gas-fired boiler	49.5 MMBtu/hr

3. GREENHOUSE GAS EMISSIONS INVENTORY

The Facility's actual GHG emissions were calculated based on historical operational data. Anticipated actual and potential GHG emissions for the proposed renewal term of the Permit were calculated assuming the Facility operates within the permitted limits for both permitted fuels (natural gas and distillate oil), with specific limits placed on the amount of distillate oil or number of hours of operation using distillate oil that are allowed in a year. The detailed calculations and Facility data used to develop the GHG emissions inventory are provided in Attachment B.

The Facility's projected future GHG emissions were calculated for the years 2030, 2040, and 2050. Pursuant to Environmental Conservation Law (ECL) Article 75, the CLCPA's Statewide GHG emissions limits require a Statewide reduction in GHG emissions from 1990 levels of 40% by 2030 and 85% by 2050. Further, the CLCPA requires that the energy generation sector achieve zero-GHG emissions by 2040. Multiple operating scenarios were considered to evaluate how the GHG emissions from the Facility can be mitigated or reduced consistent with these requirements while maintaining operations at the Facility.

All GHG emissions calculations provided in this report use the 20-year global warming potentials (GWPs) found in 6 NYCRR Section 496.5 and the associated emissions factors provided in Appendix A of the 2021 New York State Statewide GHG Emissions Report[3]. Additionally, based on NYSDEC guidance dated February 2021, upstream and downstream GHG emissions from natural gas transmission have been included in the analysis. For a description of additional applicable requirements related to the Facility's GHG emissions, refer to the Part 251, CO_2 Performance Standards Application provided in Appendix G of the April 2021 Application.

[3] NYSDEC (2021) Summary Report. 2021 NYS Statewide GHG Emissions Report. https://www.dec.ny.gov/energy/99223.html

3.1.1 Greenhouse Gas Emissions: Historical

Item 3a. of the NOIA requires that FNT submit an inventory of actual GHG emissions from the Facility, in tons per year per GHG species and in terms of carbon dioxide equivalents (CO_2e), for each year since 2015. FNT has provided additional data for the years of 2012-2014 to account for the lower annual operating capacities experienced during the COVID-19 pandemic from 2020-2021. GHG emissions reported during the years 2020-2021 are not assumed to be representative of the future operating capacity of the Facility. It is possible that the historical operating capacity and utilization may not be representative of future Facility operation. For example, the discontinuance of the Somerset coal plant in Barker, New York and the construction of the Next Era 345KV transmission line, which was placed in service in June of 2022, may change the operation and flow characteristics of the Facility.

Based on the years 2012-2021, Table 3-1 summarizes the actual GHG emissions from the combustion units at the Facility that are subject to the CLCPA. The highest actual GHG emissions from the Facility during this period correspond to the increased operating capacity of the Facility in 2016. A detailed historical GHG emissions inventory in tons per year of each GHG species and in CO_2e is provided in Attachment B.

Table 3-1

Historical GHG Emissions, 2012-2021

Actual Annual CO_2e Emissions (tpy) Per Emissions Unit					Facility Total (tpy)
Year	U-00001	U-00002	U-00003	U-00004	
2021	55.42	2.95	0.10	0.00	**58.46**
2020	21.51	27.70	0.17	0.00	**49.38**
2019	17,409.08	48.71	0.39	0.00	**17,458.18**
2018	24,295.97	62.41	1.36	0.00	**24,359.74**
2017	11,293.83	69.31	0.46	0.00	**11,363.60**
2016	84,832.85	69.15	3.42	0.00	**84,905.42**
2015	43,186.37	88.29	2.70	0.00	**43,277.36**
2014	40,959.37	142.64	6.15	0.00	**41,108.16**
2013	53,843.82	119.84	6.31	0.00	**53,969.97**
2012	78,058.60	136.70	5.62	0.00	**78,200.92**

3.1.2 Greenhouse Gas Emissions: Proposed Renewal Term of the Permit

Items 3b. and 3c. of the NOIA require FNT to submit an inventory of its anticipated actual GHG emissions from the Facility, in tons per year and CO_2e, for each year of the proposed renewal term of the Permit from 2022-2026, along with the current generating capacity and utilization rate of the Facility and the planned future capacity and utilization rate of the Facility. On March 17, 2021, FNT's owner, North Tonawanda Holdings LLC, entered into a Membership Interest Purchase Agreement ("MIPA") with Digihost International Inc. (third party) for the purchase and sale of 100% of its interests in FNT. The closing date pursuant to the MIPA is May 1, 2023, and subject to the parties obtaining all necessary regulatory approvals and the satisfaction of other MIPA closing conditions. Upon the transfer of ownership, Digihost International Inc. will own and control FNT, which will continue managing the Facility's daily operations and the legal responsibility of permit compliance. To date, regulatory approvals approving the sale of membership interests from North Tonawanda Holdings LLC to Digihost International Inc. have not yet been obtained. [4]

Neither NAES nor FNT is in a position to speculate on the anticipated operation of the Facility on behalf of the third party. The future operation of the Facility will depend on multiple factors including natural gas and oil fuel pricing, development of renewable generation and supporting transmission, as well as changes to the applicable rules that regulate the Facility. Therefore, the GHG emissions calculations for the proposed renewal term of the Permit conservatively assume that the Facility will operate U-00001, U-00002, and U-00003 within the permitted operating limits for each emissions source and 100% utilization for power generation to the grid. FNT anticipates that the natural gas-fired boiler U-00004 will continue to operate as a stand-by unit and does not anticipate the annual throughput in this unit to increase from the period provided in Table 3-1.

[4] A Petition for a Declaratory Ruling Regarding Application of Sections 70 and 83 of the New York State Public Service Law and, in the Alternative, Approval of the Proposed Transaction Pursuant to Sections 70 and 83 is on the September 15, 2022 session agenda of the New York State Public Services Commission for consideration, Case Number 21-M-0238.

The GHG emissions calculations for the proposed renewal term of the Permit consider existing operational restrictions, such as Condition 22, Item 22.2 of the Permit which requires that, except during periods of startup, malfunction and shutdown, the CT may fire distillate oil only while operating at 100% load and may operate at partial loads only while firing natural gas, between 80% and 100% load.

Table 3-2 summarizes the anticipated GHG emissions for the years 2022-2026 for the combustion units at the Facility that are subject to the CLCPA. FNT projects that the average operating capacity of the Facility will be approximately 55% over the renewal term of the Permit. The analysis is based on the Facility location on the National Grid 115kV transmission system and proximity to the city of Buffalo, New York.

Table 3-2

Anticipated GHG Emissions, Proposed Renewal Term of the Permit

Anticipated Annual CO_2e Emissions (tpy) Per Emissions Unit					Facility Total (tpy)
Year	U-00001	U-00002	U-00003	U-00004	
2026	312,582.52	279.31	55.12	0.00	**312,916.95**
2025	312,582.52	279.31	55.12	0.00	**312,916.95**
2024	312,582.52	279.31	55.12	0.00	**312,916.95**
2023	312,582.52	279.31	55.12	0.00	**312,916.95**
2022	312,582.52	279.31	55.12	0.00	**312,916.95**

In addition to calculations describing the Facility's anticipated actual GHG emissions, NYSDEC guidance requires that the Facility provide calculations describing its potential GHG emissions. Table 3-3 summarizes the potential GHG emissions for the years 2022-2026 for the combustion units at the Facility that are subject to the CLCPA. These GHG emissions have been calculated on an 8,760 hour per year basis to represent the maximum operating capacity of the Facility for the proposed renewal term of the Permit and would not lead to an increase in potential GHG emissions. A detailed potential GHG emissions inventory in tons per year each GHG species and in CO_2e is provided in Attachment B.

Table 3-3

Potential GHG Emissions, Proposed Renewal Term of the Permit

Potential Annual CO_2e Emissions (tpy) Per Emissions Unit					Facility Total (tpy)
Year	U-00001	U-00002	U-00003	U-00004	
2026	568,331.86	507.83	100.23	48,291.46	**617,231.37**
2025	568,331.86	507.83	100.23	48,291.46	**617,231.37**
2024	568,331.86	507.83	100.23	48,291.46	**617,231.37**
2023	568,331.86	507.83	100.23	48,291.46	**617,231.37**
2022	568,331.86	507.83	100.23	48,291.46	**617,231.37**

3.1.3 Greenhouse Gas Emissions: Projected Future Emissions

Item 3d. of the NOIA requires that FNT submit calculations showing the Facility's projected GHG and CO_2e emissions in the years 2030, 2040, and 2050. The GHG emissions calculations for these projected years assume that the Facility will operate within the permitted operating limits for each emissions source and 100% utilization for electricity generation to the grid. The Facility anticipates that U-00004 will continue to operate as a stand-by unit and does not anticipate the annual throughput to this unit to increase. For the year 2030, the Facility projects that GHG emissions will be equivalent to each year in the proposed renewal term of the Permit. For the years 2040 and 2050, the Facility projects that it will comply with the CLCPA's requirement for zero-GHG emissions from the electricity generation sector. A discussion of the mitigation measures and methods that the Facility evaluated to determine the feasibility of complying with this requirement is provided in Section 4 below.

Table 3-4 summarizes the projected GHG emissions in the years 2030, 2040, and 2050 for the combustion units at the Facility that are subject to the CLCPA. A detailed projected GHG emissions inventory in tons per year per GHG species and in CO_2e is provided in Attachment B.

Table 3-4

Projected Facility-Wide GHG Emissions, 2030, 2040, and 2050

Projected Annual CO_2e Emissions (tpy) Per Emissions Unit					Facility Total (tpy)
Year	U-00001	U-00002	U-00003	U-00004	
2030	312,582.52	279.31	55.12	0.00	**312,916.95**
2040	0.00	0.00	0.00	0.00	**0.00**
2050	0.00	0.00	0.00	0.00	**0.00**

4. DISCUSSION OF GREENHOUSE GAS MITIGATION SCENARIOS

As previously discussed in Section 3 of this Conformity Review, the CLCPA requires that the energy generation sector achieve zero-GHG emissions by 2040. Multiple scenarios were considered to evaluate how the GHG emissions from the Facility may be mitigated or reduced to comply with this requirement while maintaining operations at the Facility. The mitigation strategies presented below represent currently known or available methods that may provide direct or indirect reductions in the GHG emissions from the Facility. While FNT is not in a position to speculate on the anticipated future operation of the Facility or GHG emissions reduction strategies on behalf of the third party discussed in Section 3.1.2, FNT welcomes an open dialogue with NYSDEC to discuss the feasibility and implementation of reasonably available GHG mitigation strategies to enable the Facility's operations to remain consistent with the requirements of the CLCPA.

4.1 ALTERNATIVE FUELS

The Facility currently burns natural gas in the CT and Duct Burners as the primary fuel for electricity generation to the utility grid. The Facility is permitted for the limited use of distillate oil for electricity generation and to fire the auxiliary boiler (ES00002) and diesel engines (U-00002 and U-00003). For the short- to long-term period leading up to 2040, replacing the existing fuel-burning equipment at the Facility with renewable energy infrastructure of equal capacity is neither technically nor economically feasible for a peaking power plant that experiences intermittent utilization for electricity generation to the grid. However, replacing both natural gas and distillate oil with a less carbon-intense fuel, such as hydrogen-enriched natural gas (HENG), could provide the Facility with an economically feasible alternative source of energy that would mitigate the GHG emissions from burning only fossil fuels and act as a bridge fuel to achieving zero emissions by 2040.

As both the production infrastructure and supply of HENG increase, the Facility may be able to lower the carbon intensity of the natural gas used for electricity generation to the grid. According

to a 2009 paper published by National Grid and Atlantic Hydrogen, Inc.[5], benefits to utilizing HENG include leveraging existing natural gas pipelines and local delivery systems and the potential to take advantage of the growing recoverable natural gas reserves in North America and natural gas supplies globally. HENG can also be produced without generating carbon dioxide using low-cost off-peak power. In the future, these resources could be utilized to provide a source of alternative fuel to the Facility and support its overall strategy to mitigate GHG emissions that is both increasingly technically and economically feasible. A caveat to the potential for alternatives such as HENG to reduce GHG emissions is that there are numerous technological hurdles that need to be overcome before it can function as a viable alternative fuel for utility power generation. Examples of these hurdles include the effects of hydrogen gas on equipment metallurgy and the lifespan of combustion equipment, as well as concerns over process safety, supply chains, and geographic availability that may hinder fully evaluating the technical and economic feasibility of utilizing HENG in the near term.

4.2 CARBON OFFSETS

GHG emissions from the Facility could also be mitigated in both the short and long term by purchasing carbon offsets on market trading platforms. FNT does not anticipate that this method is currently sufficient to offset or reduce its entire projected GHG emissions in terms of either technical or economic feasibility. However, this method could provide an additional margin of GHG emissions reduction that could be utilized to provide operational flexibility as both energy sector policies and market fluctuations affect the technical and economic feasibility of other GHG mitigation methods.

4.3 DISPATCH MODEL

FNT developed a utility dispatch model (model) to examine the impacts of power sector policies such as the CLCPA on the generation and capacity of the Facility in the near- to long-term for the

[5] National Grid and Atlantic Hydrogen Inc. (2009). Hydrogen-Enriched Natural Gas: Bridge to An Ultra-Low Carbon World. Retrieved September 9, 2022, from https://www.osti.gov/etdeweb/servlets/purl/21396875

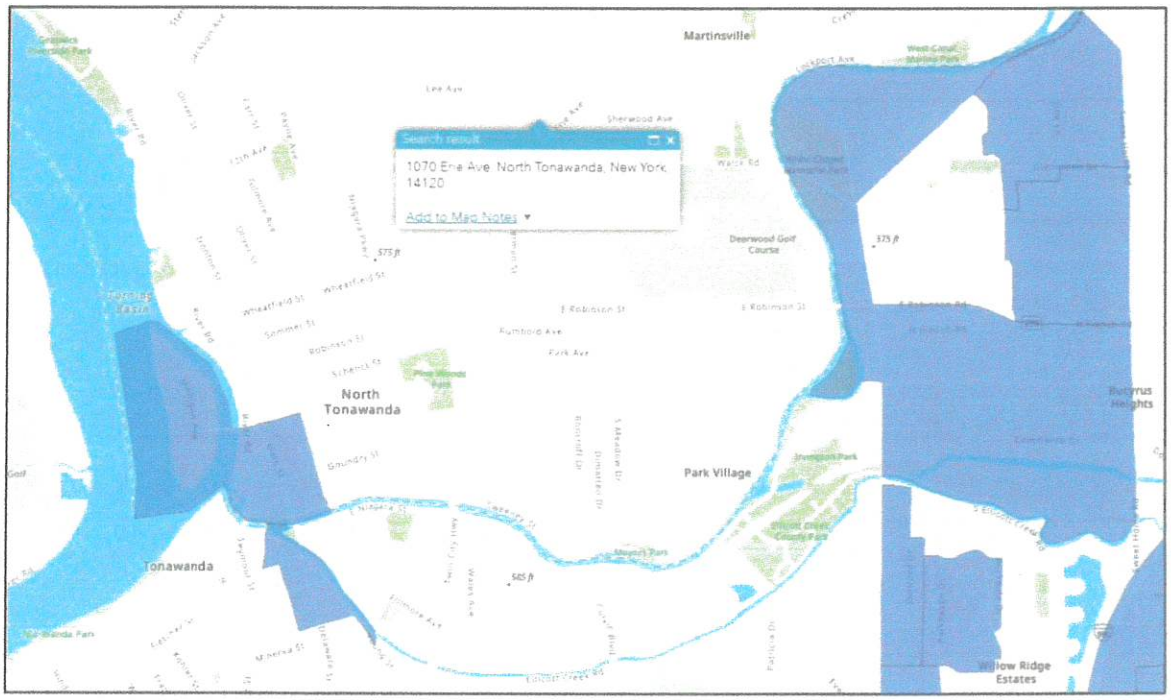
years 2023-2050. Up to the year 2039, the model projects that the economic feasibility of the current method of power generation at the Facility will fluctuate, with an average capacity factor of 55% and an endpoint in 2040 after which the Facility capacity factor is 0%. FNT is not proposing to limit the projected annual fuel usage or the operating capacity of the Facility according to the capacity factors presented in the model. However, it is important to note FNT developed this model to project the potential impact that the decarbonization of the energy sector will have on the economic feasibility of generating power by burning natural gas. FNT acknowledges that the future economic feasibility scenario presented in this model may require the development of alternate operating strategies that incorporate a mix of the methods presented above to continue power generation at the Facility after 2040.

5. POTENTIAL ENVIRONMENTAL JUSTICE AREAS

NYSDEC has provided guidance that facilities located in PEJA that are home to disadvantaged communities shall include an evaluation of co-pollutants as part of the CLCPA analysis. The Facility is located at 1070 Erie Avenue in North Tonawanda, New York. Based on NYSDEC mapping, this address is not located in an area designated as a PEJA as shown below in Figure 5-1. However, due to the proximity of adjacent areas designated as PEJA to the east and west of the Facility, an analysis of co-pollutants as Hazardous Air Pollutants (HAP) is required to evaluate the potential impacts to these communities. The Facility Emissions Summary of the April 2021 Application, in Appendix C, NYSDEC Forms, reports a Facility-wide total HAP potential to emit (PTE) of 5.48 tons per year. This PTE is based on the Facility using natural gas as the primary fuel for combustion in the CT. The Facility is not a major source for emissions of any individual HAP or for emissions of total HAP. These emissions have been calculated on an 8,760 hour per year basis and would not lead to an increase in potential co-pollutant emissions.

Available data from the United States Environmental Protection Agency's AP-42 Section 3.1: Stationary Gas Turbines indicate that emissions of HAP from combustion turbines are lower than for other combustion sources due to the high combustion temperatures reached during normal operation. Additionally, combustion turbines typically operate close to 100% load for greater fuel efficiency, which reduces HAP emissions. In contrast, in the absence of power generated by the Facility, energy demand could shift to diesel or distillate oil-fired generators at local substations, resulting in increased HAP emissions and potentially greater impacts to disadvantaged communities. Therefore, FNT has concluded that existing measures such as the use of natural gas as the primary fuel for the CT, the existing operating limits required by the Permit, and good operation and maintenance practices are sufficient to mitigate impacts to disadvantaged communities located in areas designated as PEJA.

Figure 5-1
Facility Location



6. CONCLUSION

Based on guidance provided by NYSDEC, a permit renewal that does not include a significant modification and would not lead to an increase in potential GHG emissions would in most circumstances be considered consistent with the CLCPA pending finalization of the scoping plan and future regulations. In addition, the potential emissions of co-pollutants from the Facility are not expected to increase with the proposed permit renewal and therefore would not result in greater economic, social, or environmental harm to disadvantaged communities. Anticipated GHG emissions have been calculated based on the Facility's anticipated operating capacity. No potential GHG emissions increases from the permitted fuel combustion equipment are expected to occur in future years without installing additional equipment, thus triggering a permit modification. Should the Facility propose to either install additional equipment or modifications to the Permit, GHG emissions increases would be evaluated at that time.

Multiple mitigation methods have been evaluated by FNT to reduce or eliminate its GHG emissions to comply with the CLCPA requirement that the energy generation sector achieve zero GHG emissions by 2040. These methods include, but are not limited to, burning alternative fuels such as HENG to generate power, and purchasing carbon offsets to supplement the direct GHG emissions mitigation methods. While FNT is not in a position to speculate on the anticipated operation of the Facility on behalf of the third party discussed in Section 3.1.2, FNT welcomes an open dialogue with NYSDEC to discuss the feasibility and implementation of reasonably available GHG mitigation strategies to enable the Facility's operations to remain consistent with the requirements of the CLCPA.

ATTACHMENT A -
NYSDEC NOTICE OF INCOMPLETE APPLICATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 9
700 Delaware Avenue, Buffalo, NY 14209
P: (716) 851-7165 | F: (716) 851-7168
www.dec.ny.gov

July 13, 2022

Lewis L. Staley
Lockport Energy Association LP
5087 Junction Rd
Lockport, New York 14094

Dear Lewis L Staley:

NOTICE OF INCOMPLETE APPLICATION
FORTISTAR NORTH TONAWANDA INC
AIR TITLE V PERMIT RENEWAL
PERMIT NO. 9-2912-00059

The Department of Environmental Conservation (DEC) has received and is reviewing the April 23, 2021 Title V Air Permit application for Renewal 3 of the permit. After preliminary review the Department has determined that the application is incomplete. Please submit the following information for clarification on your proposed operations and application submission:

1. Please describe the proposed business relationship between Fortistar and Digihost including any plans for Digihost to take over daily operations.

2. Please clarify if Digihost will be submitting a transfer application once the permit is renewed or if Fortistar will be holding the permit and have a contract for operations with Digihost. As part of this description, please clarify what party will be the Legally Responsible entity for permit compliance.

3. Please submit a Climate Leadership and Community Protection Act (CLCPA) conformity review following the attached request and using the attached upstream emission factors. Consistency with the CLCPA is related to emissions resulting from current and future operating conditions. The conformity review must include the following:

    a. Actual GHG emissions from the facility, in tons per year and CO2e, for each year since 2015.

    b. Anticipated actual GHG emissions from the facility, based on anticipated operation of the facility, for each year of the proposed renewal term of the permit. All future emissions calculations must consider existing operational

restrictions, such as the existing permit condition which requires that except during periods of startup, malfunction and shutdown, the combustion turbine may fire distillate oil only while operating at 100% load and may operate at partial loads only while firing natural gas, between 80% and 100% load.

c. The current generating capacity and utilization rate of the facility and the planned future capacity and utilization rate of the facility. In addition, please discuss the portion of the facility's output that will be used for each mode of operation (e.g., electricity generation to the grid vs. on site consumption for blockchain operations), now and in the future.

d. Calculations showing the facility's projected Greenhouse Gas (GHG) and carbon dioxide equivalent (CO2e) emissions in the years 2030, 2040, and 2050. Discuss alternatives and/or mitigation measures for those emissions.

e. A discussion of the method(s) the facility will use to comply with the CLCPA's requirement for zero emissions from the electricity generation sector by 2040.

4. An inconsistency regarding the potential applicability of Prevention of Significant Deterioration (PSD) to this facility has been identified. In Section 3.0 of the Ren 3 application the potential to emit for NOx and CO are both identified as greater than 390 tons/year. This would make the facility PSD major. However, the current SAPA-extended Ren 2 Title V Air Permit DEC Permit Facility Description contains a paragraph which says, "The enforceable emission limits in the original Title V permit were established in order to avoid PSD regulations and will be retained. This Title V permit renewal evaluated a project entailing the addition of two duct burners; it was determined that the project did not trigger New Source Review (NSR) applicability under 6 NYCRR Part 231." The enforceable emission limits for NOx, CO, PM/PM-10, and VOC are in the permit as hourly limits for both allowed fuels (natural gas and distillate oil), with some additional limits placed on the amount of distillate oil or number of hours of operation on distillate oil that are allowed in a year. Please provide supporting information regarding the derivation of the enforceable emission limits which appear in the Ren 2 permit as well as the calculations for the PTE values which were provided in the Ren 3 application and explain the inconsistency.

5. The facility was previously requested to include updated information for the small auxiliary boiler stack. Based upon inspections the boiler no longer exhausts into the gas turbine stack but uses a dedicated emission point. Please provide updated information.

6. Appendix F of the application contains a copy of the NOx Reasonably Available Control Technology (RACT) evaluation that was performed in 2016 for the Ren 2 permit renewal. The facility is required by 6NYCRR Part 227-2.4(e) to re-evaluate NOx RACT compliance with each permit renewal. Please provide an updated evaluation.

DEC may request additional information as staff continue reviewing the Renewal 3 Title V Air permit application. Please submit a reply with the requested information by September 15, 2022.

If you have any questions, please feel free to contact Kerri Pickard-DePriest of my staff or me at 716/851-7130. Questions related to the air permit can be directed to Michael Emery or Donna Kiersz at 716-851-7130.

Respectfully,

David S. Denk

David S. Denk
Regional Permit Administrator

KPD:ME

Attachments: 1) CLCPA Request, 2) CLCPA Appendix A Emission Factors 2021 NYS Statewide GHG Emissions Report

ecc: Maureen Brady, NYSDEC Region 9, Office of General Counsel
Michael Emery, NYSDEC Region 9, Division of Air Resources
Donna Kiersz, NYSDEC Region 9, Division of Air Resources
Kerrie Pickard-DePriest, NYSDEC Region 9, Division of Environmental Permits
Daniel Rotunno, Fortistar

As you may know, the Climate Leadership and Community Protection Act (CLCPA) became effective January 1, 2020. (Chapter 106 of the Laws of 2019). Among other requirements, the CLCPA directs state agencies to determine if the decisions they make are consistent with the Statewide greenhouse gas (GHG) emission limits established by the CLCPA in Environmental Conservation Law (ECL) Article 75. In the case of the DEC, this includes determining if permits issued are consistent with or would interfere with the attainment of the Statewide GHG emission limits in ECL Article 75.

To address Section 7(2) of CLCPA, please identify each GHG and calculate the project's potential to emit GHG in units of tons per year and carbon dioxide equivalents using the 20-year global warming potentials found in 6 NYCRR Section 496.5. The CLCPA analysis should also include calculations showing the project's projected GHG and CO2e emissions in the years 2030 and 2050 if possible. For purposes of the CLCPA, Statewide GHG emissions include "upstream" out-of-state GHG emissions associated with the generation of electricity imported into the State, or the extraction, transmission, and use of fossil fuels imported into the State. Accordingly, please include any upstream emissions in the calculations. The Department has developed the attached document titled, "Emission Factors for Use by State Agencies and Applicants," which includes upstream emission factors for facilities to use as they prepare analyses. As explained in the attached document, the values are intended to be presumptive, meaning a facility may use a different value in a given context, provided that it is supported by an appropriate justification in the analysis.

Pursuant to ECL Article 75, the CLCPA's Statewide GHG emission limits require a Statewide reduction in GHG emissions from 1990 levels of 40% by 2030 and 85% by 2050. Further, CLCPA requires that the energy generation sector be zero-emissions by 2040. Please discuss how the emissions from this facility will be mitigated or reduced consistent with these requirements. If there are no feasible ways to reduce GHGs, please explain that, too. If GHG emissions will not be consistent with the Statewide GHG emission limits of the CLCPA, then we may need to discuss this further.

To address Section 7(3) of CLCPA, the DEC is required to prioritize the reduction of GHG emissions and co-pollutants in Disadvantaged Communities. Please see https://climate.ny.gov/Our-Climate-Act/Disadvantaged-Communities-Criteria for more information on draft Disadvantaged Communities and a link to an interactive map of communities that meet the draft Disadvantaged Communities criteria.[1] Co-pollutants are defined as hazardous air pollutants (HAPs) that are emitted by GHG sources. A GHG source is a piece of equipment or a facility that emits GHG. If this project is in, or potentially impacts, a Draft Disadvantaged Community, as identified by the New York State Climate Justice Working Group, please calculate the co-pollutant emissions from each GHG source and discuss any alternatives or mitigation measures that will be used to reduce the impact of those emissions on the facility's neighbors. If you conclude that existing measures are enough to mitigate these impacts, that should be discussed as well.

[1] As indicated on the website, public comments on the draft disadvantaged communities criteria are currently being accepted through July 7, 2022. While the draft criteria may be utilized at this time, once finalized, applicants will be required to utilize the final version of identified disadvantaged communities for purposes of addressing Section 7(3) of CLCPA.

Appendix A. Emission Factors for Use by State Agencies and Applicants

The following tables provide information on the greenhouse gas emissions associated with different types of fuels. This information can be used by any entity to estimate emissions that result from the use of fuels following the same CLCPA-compliant accounting used in this report and in the adoption of 6 NYCRR Part 496. These emission factors can be applied to generic (not source-specific) fossil fuels at the high heating content (see High Heating Values). The emission factors included in this document are derived from the same analyses described in the accompanying "*Sectoral Report #1: Energy*" for calculating Imported Fossil Fuels and Fugitive Emissions. The emission factors presented in this document are a work in progress, subject to future stakeholder comment, and will be subject to a continual improvement process as additional information becomes available. These factors do not include the direct emissions resulting from the combustion of the fuel.

Current Upstream and Out-of-State Emission Factors for Imported Fossil Fuels

Emission factors in Table A1 reflect greenhouse gas emissions associated with the extraction, production, and transmission of fossil fuels imported into New York State for the most recent year available, or 2019. This does not include extraction, production, or transmission of fuels within New York State (see below). Users may wish to adjust the specified emission factors for blended fuels. The gasoline emission factors represent 100% fossil fuel content gasoline, equivalent to gasoline blend stock, if evaluating blends with oxygenates (e.g., ethanol) these blends can be apportioned to the fraction of emissions associated with the energy fraction of the blend that is from fossil fuels (e.g., E85 is a blend of ethanol and gasoline estimated here to have the energy content of approximately 28% gasoline and 72% ethanol). Finally, units in grams can be converted to pounds by dividing by 453.6.

Table A1: 2019 Emission Rates for Upstream Out-of-State Sources (g/mmbtu)

Fuel Type	CO_2	CH_4	N_2O	Total CO_2e
Natural Gas	12,131	357	0.14	42,147
Diesel/ Distillate Fuel	15,164	121	0.26	25,375
Coal	3,300	364	0.10	33,891
Kerosene/Jet Fuel	10,071	109	0.17	19,270
Gasoline (E85)	5,097	33	0.08	7,905
Gasoline	19,604	128	0.33	30,405
LPG	17,295	121	0.27	27,553
Petroleum Coke	11,612	112	0.20	21,096
Residual Fuel	11,799	111	0.19	21,184

Note: Total CO2e conversion uses GWP20 per 6 NYCRR Part 496

Current Emission Factors for Non-Energy Fuel Use

Emission factors in Table A2 reflect the upstream out of state emissions associated with fossil fuel derived products that are not primary combustion fuels but have other consumption uses within the state.

NYSDEC (2021) *Summary Report*. 2021 NYS Statewide GHG Emissions Report. https://www.dec.ny.gov/energy/99223.html

Table A2: 2019 Emission Rates for Fossil Fuel Products (g/mmbtu)

Fuel Type	CO_2	CH_4	N_2O	Total CO_2e
Asphalt and Road Oil	8,487	105	0.13	17,325
Lubricants	20,190	116	0.37	30,009
Waxes	19,518	115	0.36	29,261
Miscellaneous Petroleum Products	10,691	109	0.17	19,904
Special Naphthas	14,313	117	0.26	24,193

Note: Total CO2e conversion uses GWP20 per 6 NYCRR Part 496

Current Downstream and In-State Emission Factors for Fossil Fuels

Emission factors in Table A3 reflect fugitive emissions within New York State associated with fuel throughput for the most recent year available, or 2019. Emission factors were generated by summing emissions from natural gas distribution, or downstream infrastructure and dividing by the instate consumption of natural gas in industry, commercial, residential, transportation sectors.

Table A3: 2019 Emission Rates for Downstream In-State Sources (g/mmbtu)

Fuel Type	CO_2	CH_4	N_2O	Total CO_2e
Natural Gas and Renewable Natural Gas (RNG/biogas)	2.0	68	n/a	5,714

Note: Total CO2e conversion uses GWP20 per 6 NYCRR Part 496

High Heating Value

The following table is reproduced from the Energy Information Administration (EIA) State Energy Data System (SEDS), with btu values divided by physical units. Renewable Natural Gas is assumed to be pipeline quality with equivalent energy content. Raw landfill gas has substantially different energy content per standard cubic foot. E85 is assumed to have the energy content of 28% gasoline and 72% ethanol.

Table A4: High Heating Value of Select Fuels (mmbtu)

Fuel Type	High Heating Value	Unit of volume or mass
Natural Gas/RNG	0.001033	Standard cubic foot
Diesel/Distillate Fuel	0.137	U.S. gallon
Coal	25.36	Short Ton
Kerosene/Jet Fuel	0.135	U.S. gallon
Gasoline E85	0.097	U.S. gallon
Gasoline	0.124	U.S. gallon
LPG	0.091	U.S. gallon
Petroleum Coke	0.136	U.S. gallon
Residual Fuel	0.150	U.S. gallon
Asphalt and Road Oil	0.158	U.S. gallon
Lubricants	0.144	U.S. gallon
Waxes	0.132	U.S. gallon
Misc. Petroleum Products	0.138	U.S. gallon
Special Naphthas	0.125	U.S. gallon

ATTACHMENT B -
SUPPORTING GREENHOUSE GAS INVENTORY CALCULATIONS

Table B-1

Greenhouse Gas Calculations - Emissions Factors

Fortistar North Tonawanda Cogeneration Plant - North Tonawanda, NY

Fuel Type	Pollutant	GWP Multiplier 20-year [a]	Combustion [b]		Upstream [c]		Downstream [d][e]		Total Aggregate Emission Factor
			(kg/MMBtu)	(lb/MMBtu) [f]	(g/MMBtu)	(lb/MMBtu) [f]	(g/MMBtu)	(lb/MMBtu) [f]	(lb/MMBtu)
Natural Gas	CO_2	1	53.06	116.98	12,131	26.74	2.0	4.41E-03	143.73
	CH_4	84	1.00E-03	2.20E-03	357	0.79	68	0.15	0.94
	N_2O	264	1.00E-04	2.20E-04	0.14	3.09E-04	-	-	5.29E-04
	CO_2e	-	53.17	117.22	42,147	92.92	5,714	12.60	222.74
Diesel/Distillate Oil	CO_2	1	73.96	163.05	15,164	33.43	-	-	196.48
	CH_4	84	3.00E-03	6.61E-03	121	0.27	-	-	0.27
	N_2O	264	6.00E-04	1.32E-03	0.26	5.73E-04	-	-	1.90E-03
	CO_2e	-	74.37	163.96	25,375	55.94	-	13.18	233.08

[a] Global warming potentials using GWP20 per 6 NYCRR, Chapter 4, Part 496, Section 5.

[b] Combustion emissions factors for natural gas and No. 2 fuel oil/petroleum products taken from Table C-1 to Subpart C of 40 CFR Part 98 for CO_2 and Table C-2 to Subpart C of 40 CFR Part 98 for CH_4 and N_2O.

[c] Upstream emissions factors from the NOIA, Table A1.

[d] Downstream emissions factors taken from the NOIA, Table A3.

[e] A downstream emissions factor for distillate oil was not provided in the NOIA memo Table A3. This factor was conservatively estimated by scaling the natural gas upstream emissions factor by the ratio of distillate oil to natural gas upstream plus combustion emissions factors.

[f] Calculations completed using the following conversion factors:

Conversion Factors	
453.592	g/lb
1,000	g/kg

Table B-2
Annual Throughput Calculations - Inputs
Fortistar North Tonawanda Cogeneration Plant - North Tonawanda, NY

Annual Throughput Consumption[a]			CT, HRSG, AB & DB	CAT 3512 DITA Emergency Generator	Detroit Diesel 660 HP Starting Motor	Cleaver Brooks Natural Gas-Fired Boiler	Facility Total
Year	Fuel	Units	U00001	U00002	U00003	U00004	
2021	Natural Gas	MMscf	0.48	-	-	0	0.48
	Distillate Oil	10^3 gal	0	0.18	6.10E-03	-	0.19
2020	Natural Gas	MMscf	0.19	-	-	0	0.19
	Distillate Oil	10^3 gal	0	1.74	0.01	-	1.75
2019	Natural Gas	MMscf	151.33	-	-	0	151.33
	Distillate Oil	10^3 gal	0	3.05	0.02	-	3.08
2018	Natural Gas	MMscf	211.19	-	-	0	211.19
	Distillate Oil	10^3 gal	0	3.91	0.09	-	3.99
2017	Natural Gas	MMscf	98.17	-	-	0	98.17
	Distillate Oil	10^3 gal	0	4.34	0.03	-	4.37
2016	Natural Gas	MMscf	737.40	-	-	0	737.40
	Distillate Oil	10^3 gal	0	4.33	0.21	-	4.55
2015	Natural Gas	MMscf	375.39	-	-	0	375.39
	Distillate Oil	10^3 gal	0	5.53	0.17	-	5.70
2014	Natural Gas	MMscf	356.04	-	-	0	356.04
	Distillate Oil	10^3 gal	0	8.93	0.39	-	9.32
2013	Natural Gas	MMscf	468.03	-	-	0	468.03
	Distillate Oil	10^3 gal	0	7.51	0.40	-	7.90
2012	Natural Gas	MMscf	678.52	-	-	0	678.52
	Distillate Oil	10^3 gal	0	8.56	0.35	-	8.91

[a] Calculations completed using the following information from the tables below:

Source Operational Information				
Emission Source Name	Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Natural Gas (hr/yr)	Distillate Oil (hr/yr) [b]
CT, HRSG, AB & DB	U00001	578.14	8,760	1,440
CAT 3512 DITA Emergency Generator	U00002	10.5	–	415
Detroit Diesel 660 HP Starting Motor	U00003	4.3	–	200
Cleaver Brooks Natural Gas-Fired Boiler	U00004	49.5	8,760	–

Conversion Factors	
1,000	gal/10^3 gal
1,000,000	scf/MMscf

[b] Annual fuel usage limits and hourly operating limits are based on the permitted usage limits for distillate oil for each emissions unit.

Table B-3
Greenhouse Gas Calculations - Historical Emissions
Fortistar North Tonawanda Cogeneration Plant - North Tonawanda, NY

Year	Annual GHG Emissions (tpy) Per Emissions Unit [a,b]																Total
	U-00001				U-00002				U-00003				U-00004				
	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2e
2021	35.76	0.23	1.32E-04	55.42	2.48	3.46E-03	2.40E-05	2.95	0.08	1.14E-04	7.92E-07	0.10	0	0	0	0	58.46
2020	13.88	0.09	5.11E-05	21.51	23.35	0.03	2.25E-04	27.70	0.15	2.02E-04	1.40E-06	0.17	0	0	0	0	49.38
2019	11,233.69	73.41	0.04	17,409.16	41.06	0.06	3.96E-04	48.71	0.33	4.53E-04	3.14E-06	0.39	0	0	0	0	17,458.26
2018	15,677.64	102.44	0.06	24,296.07	52.61	0.07	5.08E-04	62.41	1.14	1.59E-03	1.10E-05	1.36	0	0	0	0	24,359.84
2017	7,287.65	47.62	0.03	11,293.88	58.43	0.08	5.64E-04	69.31	0.39	5.43E-04	3.77E-06	0.46	0	0	0	0	11,363.65
2016	54,740.73	357.70	0.20	84,833.22	58.29	0.08	5.62E-04	69.15	2.88	4.01E-03	2.78E-05	3.42	0	0	0	0	84,905.79
2015	27,867.19	182.10	0.10	43,186.56	74.43	0.10	7.18E-04	88.29	2.27	3.16E-03	2.19E-05	2.70	0	0	0	0	43,277.55
2014	26,430.16	172.71	0.10	40,959.55	120.24	0.17	1.16E-03	142.64	5.18	7.21E-03	5.00E-05	6.15	0	0	0	0	41,108.34
2013	34,744.21	227.03	0.13	53,844.06	101.02	0.14	9.75E-04	119.84	5.32	7.40E-03	5.13E-05	6.31	0	0	0	0	53,970.21
2012	50,569.46	329.14	0.19	78,058.95	115.24	0.16	1.11E-03	136.70	4.74	6.59E-03	4.57E-05	5.62	0	0	0	0	78,201.27

[a] Calculations completed using the following conversion factors:

Conversion Factors	
1,000	gal/10^3 gal
1,000,000	scf/MMscf
0.001033	MMBtu/scf
0.137	MMBtu/gal
2,000	lb/ton

[b] Calculations use the GHG and CO_2e emissions factors in lb/MMBtu, and the Higher Heating Values provided in Table B-1 and B-2.

Table B-4
Greenhouse Gas Calculations - Proposed Renewal Term - Actual Emissions
Fortistar North Tonawanda Cogeneration Plant - North Tonawanda, NY

Year	Annual GHG Emissions (tpy) Per Emissions Unit [a] [b] [c]																Total
	U-00001				U-00002				U-00003				U-00004				
	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2e
2026	212,251.75	1,155.59	1.05	312,582.52	235.45	0.33	2.27E-03	279.31	46.47	0.06	4.48E-04	55.12	0	0	0	0	312,916.95
2025	212,251.75	1,155.59	1.05	312,582.52	235.45	0.33	2.27E-03	279.31	46.47	0.06	4.48E-04	55.12	0	0	0	0	312,916.95
2024	212,251.75	1,155.59	1.05	312,582.52	235.45	0.33	2.27E-03	279.31	46.47	0.06	4.48E-04	55.12	0	0	0	0	312,916.95
2023	212,251.75	1,155.59	1.05	312,582.52	235.45	0.33	2.27E-03	279.31	46.47	0.06	4.48E-04	55.12	0	0	0	0	312,916.95
2022	212,251.75	1,155.59	1.05	312,582.52	235.45	0.33	2.27E-03	279.31	46.47	0.06	4.48E-04	55.12	0	0	0	0	312,916.95

[a] U-00001 is permitted to combust both natural gas and fuel oil. The anticipated GHG emissions for U-00001 is based on an annul operating capacity of 55%.
[b] The PTE calculations for U-00002, U-00003, and U-00004 are based on an annual operating capacity of 55% of the permitted operating hours for each emissions unit.
[c] Calculations completed using the following conversion factors:

Conversion Factors	
2,000	lb/ton

Table B-5
Greenhouse Gas Calculations - Proposed Renewal Term - Potential Emissions
Fortistar North Tonawanda Cogeneration Plant - North Tonawanda, NY

Year	Annual GHG Emissions (tpy) Per Emissions Unit [a][b][c]																Total
	U-00001				U-00002				U-00003				U-00004				
	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2e
2026	385,912.27	2,101.07	1.91	568,331.86	428.09	0.60	4.13E-03	507.83	84.49	0.12	8.15E-04	100.23	31,161.25	203.62	0.11	48,291.46	617,231.37
2025	385,912.27	2,101.07	1.91	568,331.86	428.09	0.60	4.13E-03	507.83	84.49	0.12	8.15E-04	100.23	31,161.25	203.62	0.11	48,291.46	617,231.37
2024	385,912.27	2,101.07	1.91	568,331.86	428.09	0.60	4.13E-03	507.83	84.49	0.12	8.15E-04	100.23	31,161.25	203.62	0.11	48,291.46	617,231.37
2023	385,912.27	2,101.07	1.91	568,331.86	428.09	0.60	4.13E-03	507.83	84.49	0.12	8.15E-04	100.23	31,161.25	203.62	0.11	48,291.46	617,231.37
2022	385,912.27	2,101.07	1.91	568,331.86	428.09	0.60	4.13E-03	507.83	84.49	0.12	8.15E-04	100.23	31,161.25	203.62	0.11	48,291.46	617,231.37

[a] U-00001 is permitted to combust both natural gas and fuel oil. The maximum PTE for U-00001 is based on the permitted operating limit for the combustion of distillate oil (1,440 hr/yr = 5,900,000 gal/yr) plus the remaining 7,320 hours/year combusting natural gas.

[b] The PTE calculations for U-00002, U-00003, and U-00004 are based on the permitted operating hours for each emissions unit.

[c] Calculations completed using the following conversion factors:

Conversion Factors	
2,000	lb/ton

Table B-6
Greenhouse Gas Calculations - Projected Future Emissions
Fortistar North Tonawanda Cogeneration Plant - North Tonawanda, NY

Year	Annual GHG Emissions (tpy) Per Emissions Unit - CO2e																Total
	U-00001				U-00002				U-00003				U-00004				
	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2	CH_4	N_2O	CO_2e	CO_2e
2030	212,251.75	1,155.59	1.05	312,582.52	235.45	0.33	2.27E-03	279.31	46.47	0.06	4.48E-04	55.12	0	0	0	0	312,916.95
2040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[a] U-00001 is permitted to combust both natural gas and fuel oil. The projected GHG emissions for 2030 is based on the average annual GHG emissions for the renewal term of the Permit.
[b] The PTE calculations for U-00002, U-00003, and U-00004 are based on the anticipated GHG emissions for the renewal term of the Permit for each emissions unit.
[c] 2040 and 2050 projected GHG emissions assumes that the Facility will achieve zero-GHG emissions consistent with the requirements of the CLCPA.

Attachment 2

FORTISTAR NORTH TONAWANDA INC.
1070 Erie Avenue
North Tonawanda, New York 14120

September 13, 2022

David S. Denk
Regional Permit Administrator
New York State Department of Environmental Conservation
Division of Environmental Permits, Region 9
700 Delaware Avenue
Buffalo, NY 14209

RE: Fortistar North Tonawanda Cogeneration Facility (NYSDEC ID# 9-2912-00059)
Revised NO_X RACT Analysis

Dear Mr. Denk:

On April 23, 2021, the Fortistar North Tonawanda Cogeneration Facility (FNT) submitted a permit renewal application for Title V Air Permit 9-2912-00059 (Permit). As part of operations under the Permit, FNT operates a GE model 6541 B Frame 6 combustion turbine (CT) equipped with duct burners (DB).

In response to this submittal, the New York State Department of Environmental Conservation (NYSDEC) issued a Notice of Incomplete Application to FNT. NYSDEC has requested that FNT provide an updated case-by-case Reasonably Available Control Technology (RACT) analysis for the FNT facility. Pursuant to the New York Code of Rules and Regulations (NYCRR) Section 227-2.4(e)(2), for combined cycle combustion turbines, the owner or operator must submit a case-by-case RACT analysis upon the submission of either a new or renewal application for a Title V permit. The most recently submitted RACT analysis for the CT at the FNT facility was prepared in June 2016.

In response to the Notice of Incomplete Application, FNT has updated the 2016 RACT analysis. The intent of the RACT analysis is to identify the reasonably available control technologies for the removal of nitrogen oxides (NO_X). No new control technologies were identified in this analysis. The updated cost-effectiveness calculations, provided as Tables A-1 and A-2 of Attachment A, reflect new control system capital cost quotes as well as updated emissions, utility, fuel, labor, and related parameters.

FNT is also providing updated clarification/documentation regarding the natural gas and electricity cost assumptions that were used to re-evaluate the cost-effectiveness of selective catalytic reduction (SCR) and dry low NO_X (DLN) combustion system retrofits. The following sections and associated attachments to this letter provide detail for each of the added or augmented costs found in the cost-effectiveness tables.

HRSG ASME Pressure Vessel Code Study

FNT has determined that if an SCR were to be installed, additional modifications may be required to integrate the SCR components into the existing heat recovery steam generator (HRSG) and maintain conformance with the American Society of Mechanical Engineers (ASME) pressure

vessel code. A study would be required to determine if and how the modifications associated with an SCR retrofit would affect the HRSG. Based on the capital cost quote provided by CECO Environmental and presented in Attachment B, FNT understands that the cost of this study would be in addition to the engineering fee cost assumption already in the analysis. FNT has estimated that an ASME Pressure Vessel Code Study would cost approximately $30,000.

Labor
FNT has updated the cost of labor to operate, maintain, and/or repair the SCR. This cost was increased by 23% based on the adjusted inflation of the US dollar during the period of 2016 to 2022 from $50.40/hour in the June 2016 analysis, to a current rate of $61.96 per hour.

2021 Natural Gas Cost
FNT has provided correlated natural gas price records from each month of 2021 to substantiate the natural gas costs that were used in the updated SCR system cost-effectiveness analysis. In Attachment C, please find this supporting documentation for the historical data for natural gas prices, as posted by FNT's natural gas supplier, National Fuel Gas. Based on this data, the delivered natural gas price averaged $4.54 per dekatherm (dth), or per million British Thermal Units (MMBtu), during the stated period.

Electricity Cost for SCR System
FNT has estimated that the use of an SCR system will create backpressure that will incrementally reduce the power output of the combustion turbine. The expected backpressure is equivalent to the loss of 0.3 megawatt-hours (MWh). FNT has calculated the parasitic cost of operating the SCR by multiplying the total MWh lost due to the operation of the SCR by using the average price of electricity, thus estimating the revenue that could have been realized by FNT had that electricity been created and sold. (This approach is consistent with the June 2016 RACT evaluation for FNT previously approved by the NYSDEC.) In Attachment C, please find supporting documentation from the New York Independent System Operator (NYISO) power pricing for each month of 2021 from FNT's power node. Based on the data, the average NYISO electrical cost is $40.85 per MWh.

Revised Cost-Effectiveness Analyses:
FNT has updated the cost-effectiveness tables detailing the retrofit costs of SCR and DLN systems. In the original April 2012 analysis, FNT included two vendor cost quotes for each NO_X removal technology. For the June 2016 analysis, FNT chose to only update the most cost-effective option for each technology to be the most conservative. For the purpose of this updated analysis, FNT has included one vendor cost quote for each NO_X removal technology due to time constraints. A brief description of each cost table and analysis is as follows:

Table A-1 of Attachment A
Table A-1 reflects the updated natural gas and power cost information provided in Attachment C, updated labor costs as provided by FNT, the updated capital investment costs as provided by CECO Environmental, and the potential NO_X emissions including emissions from the CT and two DB. Based on the revisions, the cost-effectiveness of SCR is now $11,242 per ton of NO_X removed versus the $6,628 per ton of NO_X removed as presented in the June 2016 analysis. The

increase in the cost-effectiveness value is due primarily to the increases in capital investment cost of the SCR equipment and associated annualized costs.

Table A-2 of Attachment A

Table A-2 reflects the updated capital investment costs as provided by General Electric (GE) Power. Please note that the retrofit of a DLN system will reduce NO_X emissions from the combustion turbine only. The emissions from the DB will be unaffected and were not included in the updated analysis. Based on the revision, the cost-effectiveness of DLN is now $11,083 per ton of NO_X removed versus the $8,055 per ton of NO_X removed as presented in the June 2016 analysis. The increase in the cost-effectiveness value is due primarily to the increase in capital investment costs of the DLN equipment.

Conclusion:

Based on the revised cost-effectiveness analyses presented in Tables A-1 and A-2 of Attachment A, neither SCR nor DLN are cost-effective NO_X control systems for the combustion turbine in service at the FNT. The emissions limitations currently applicable to the CT at the facility, as identified in the previous "Reasonably Available Control Technology (RACT) Analysis" Report submitted in June 2016, remain RACT for NO_X emissions from the modified facility.

If you have any questions or concerns, please contact Dan Rotunno or Lewis Staley at (716) 694-9874.

Sincerely,

Daniel Rotunno
Plant Manager

cc: Kerri Pickard-DePriest – NYSDEC Region 9
Michael Emery – NYSDEC Region 9
Donna Kiersz – NYSDEC Region 9
Lewis Staley – FNT
Daniel Brese – ALL4

ATTACHMENT A -
RACT COST ANALYSIS

TABLE A-1
CAPITAL AND ANNUAL COSTS ASSOCIATED WITH AN SCR SYSTEM FOR THE COMBUSTION TURBINE & DUCT BURNERS (CECO) FORTISTAR NORTH TONAWANDA LLC - NORTH TONAWANDA, NY

CAPITAL COSTS

	COST ITEM	COST FACTOR/NOTES		COST ($)
Costs to Purchase and Install Equipment				
Purchased Equipment Costs				
(a)	SCR System (Includes Urea Storage Tank)	A		$2,300,000
(g)	Air-to-Air Heat Exchanger (70% Efficiency)	A		$307,500
(b)	Instrumentation	0.100	A	$280,750
(b)	Sales taxes	0.080	A, Niagara County tax rate	$229,460
(b)	Freight	0.050	A	$130,375
	Total Purchased Equipment Cost		***B***	***$3,228,085***
Direct Installation Costs				
(a)	SCR System			$1,865,991
	Direct Installation Cost			***$1,865,991***
	Total Direct Cost			***$5,094,076***
(Indirect Costs (Installation)				
(b)	Engineering	0.10	B	$322,809
(b)	Construction & field expenses	0.10	B	$322,809
(b)	Contractor fees	0.10	B	$322,809
(b)	Start-up	0.01	B	$32,281
(b)	Performance Test	0.01	B	$32,281
(b)	Contingencies	0.03	B	$96,843
	Total Indirect Cost			***$1,129,830***
Total Capital Investment (TCI)			(Tot Dir Cost+Total Indir Cost)	***$6,223,906***

ANNUALIZED COSTS

	COST ITEM	COST FACTOR	UNIT COST		ANNUAL COST ($)
Annual Operating Costs					
Direct Annual Costs					
Operating Labor					
(b),(c)	Labor, one employee	0.5 hours/shift/turbine	$61.98	per hour	$39,923
Maintenance					
(b)	Maintenance Labor and Materials	0.015 TCI			$93,359
Utilities					
(d)	Reagent, 32% Urea	56,940 gal/hr	$2.49	per gal	$141,681
(c), (e),(f)	Electricity	262.6 MWh/yr	$40.850	per MWh	$10,735.38
(c)	Natural gas required to reheat exhaust	297,840 MMBtu/yr	$4.64	per MMBtu	$1,382,194
(d)	Catalyst replacement	1 layer	$199,260	per five years	$39,852
(e)	Labor for catalyst replacement	1 layer	Unknown	per five years	Unknown
(e)	Spent catalyst disposal	1 layer	Unknown	per year	Unknown
Total Direct Annual Costs				***DAC***	***$1,671,644***
Indirect Annual Costs					
(b)	Overhead	60% of sum of operating & maintenance costs			$76,369
(b)	Administrative Charges	2% of TCI			$124,478
(b)	Property Taxes	1% of TCI			$62,239
(b)	Insurance	1% of TCI			$62,239
Total Indirect Annual Costs				***IAC***	***$325,325***
Total Annual O&M Costs				***O&M***	***$1,996,969***
Cost Effectiveness					
(b)	Expected lifetime of equipment, years	20			
(b)	Interest rate, %/yr	7.0%			
(b)	Capital recovery factor	0.094			
(b)	Total capital investment cost	$6,223,906			
	Annualized capital investment cost				***$587,493***
Total Annualized Cost (including O&M)					***$2,584,462***
Cost Effectiveness					
	Uncontrolled Emissions	261.24 tons NOx/yr			***Annual Cost/Ton Removed***
	Emissions Removed	229.89 tons NOx/yr	88% NOx removal		***$11,242***

Notes:
(a) Cost information obtained from Mr. Jeffrey Broderick of CECO Environmental (CECO) on September 9, 2022 for a representative combustion turbine of similar size and operation.
(b) Cost information estimated using the U.S. EPA Air Pollution Control Cost Manual (6th edition) published in January 2002 by the OAQPS.
(c) Cost information provided by Fortistar North Tonawanda, Inc.
(d) Cost information obtained from Mr. Jeffrey Broderick of CECO Environmental (CECO) on September 9, 2022. SCR is comprised of three layers of catalyst; one layer must be replaced every 3-5 years. Urea reagent must be replenished on a regular basis to continue operation of the catalyst.
(e) Mr. Jeffrey Broderick of CECO Environmental (CECO) was unable to provide estimate. Additional engineering analysis is necessary to quantify.
(f) Mr. Jeffrey Broderick of CECO Environmental (CECO) reported that installation of a SCR system will create backpressure that will potentially reduce the CT's ability to produce power. The potential loss in revenue was determined to be $40.85 per MWh.
(g) Estimated cost for a heat exchanger with 70% heat recovery. Cost estimate is for materials only. Detailed engineering analysis is needed. Actual cost is expected to be higher.

TABLE A-2
CAPITAL AND ANNUAL COSTS ASSOCIATED WITH A DLN SYSTEM FOR THE COMBUSTION TURBINE (GE)
FORTISTAR NORTH TONAWANDA LLC - NORTH TONAWANDA, NY

CAPITAL COSTS

	COST ITEM	COST FACTOR/NOTES		COST ($)
Costs to Purchase and Install Equipment				
Purchase and Installation Equipment Costs				
(a)	GE DLN Upgrades			$8,600,000
(b)	Instrumentation	0.100 A		$860,000
(b)	Sales taxes	0.080 A, Niagara County tax rate		$748,000
(b)	Freight	0.050 A		$425,000
	Total Purchased & Installation Equipment Cost			***$10,623,000***
	Total Direct Cost			***$10,623,000***
Indirect Costs (Installation)				
(b)	Engineering	0.10 B		$1,062,300
(b)	Construction & field expenses	0.10 B		$1,062,300
(b)	Start-up	0.01 B		$106,230
(b)	Performance Test	0.01 B		$106,230
(b)	Contingencies	0.03 B		$318,690
	Total Indirect Cost			***$2,655,750***
Total Capital Investment (TCI)		(Tot Dir Cost+Total Indir Cost)		***$13,278,750***

ANNUALIZED COSTS

	COST ITEM	COST FACTOR	UNIT COST		ANNUAL COST ($)
Annual Operating Costs					
Direct Annual Costs					
Operating Labor					
(b),(c)	Labor, one employee	0 hours/shift/turbine	$61.99 per hour		$0
Maintenance					
(b)	Maintenance Labor and Materials	0.015 TCI			$164,159
Utilities					
	No increase in utility costs are expected; however, a detailed engineering analysis would be needed to confirm.				$0
Total Direct Annual Costs				***DAC***	***$164,159***
Indirect Annual Costs					
(b)	Overhead	60% of sum of operating & maintenance costs			$98,495
(b)	Administrative Charges	2% of TCI			$218,678
(b)	Property Taxes	1% of TCI			$109,439
(b)	Insurance	1% of TCI			$109,439
Total Indirect Annual Costs				***IAC***	***$536,252***
Total Annual O&M Costs				***O&M***	***$700,411***
Cost Effectiveness					
(b)	Expected lifetime of equipment, years	20			
(b)	Interest rate, %/yr	7.0%			
(b)	Capital recovery factor	0.094			
(b)	Total capital investment cost	$10,943,920			
	Annualized capital investment cost				***$1,033,029***
Total Annualized Cost (including O&M)					***$1,733,440***
Cost Effectiveness					
	Uncontrolled Emissions	244.4 tons NOx/yr			***Annual Cost/Ton Removed***
	Emissions Removed	156.4 tons NOx/yr	64% NOx removal (d)		***$11,083***

Notes:
(a) Cost information obtained from Mike Welsh of GE Power and Water on September 1, 2022.
(b) Cost information estimated using the U.S. EPA Air Pollution Control Cost Manual (6th edition) published in January 2002 by the OAQPS.
(c) The facility assumes that no additional labor would be required to operate and maintain the turbine after installation of the DLN.
(d) NOx guarantee is 9 ppmvd @ 15% O_2.

ATTACHMENT B -
VENDOR QUOTES

CECO ENVIRONMENTAL

CCA Combustion Systems

A division of Peerless Mfg. Co. A CECO Environmental Brand

CECO CCA PROPOSAL Q2213384 Rev. 0

For

All 4 Inc

New York – 55 MW GT SCR Retrofit

Aqueous Urea SCR System

Submitted to

Jennifer Martin

Project Engineer

ALL 4 Inc

ALL4

Prepared by

Jeff Broderick
CCA Combustion Systems
A Division of Peerless Mfg. Co.
884 Main Street
Monroe, CT, USA 06468

Tel: 1-203-268-3139
https://www.cecoenviro.com/brands/peerless-emissions-control/

September 9, 2022

Rev	Date	Changes	By
0	9/9/2022	Initial Submittal	J. Broderick

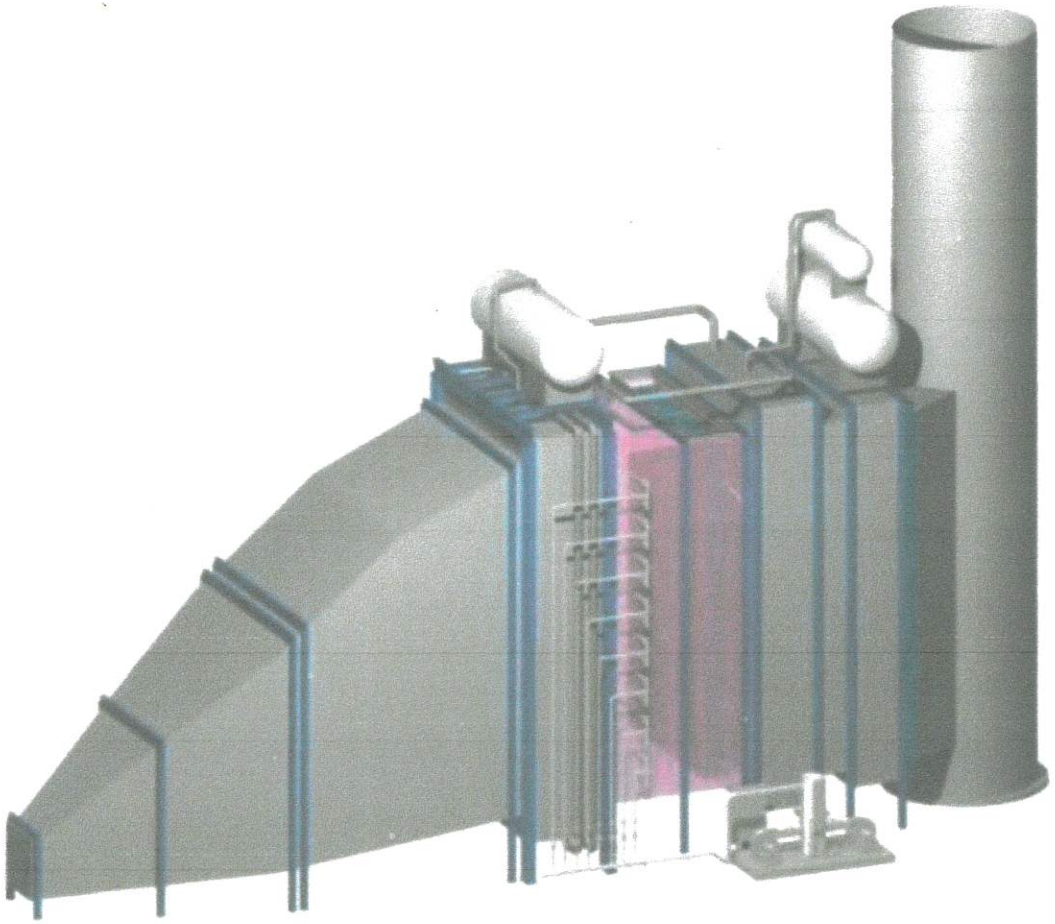
CECO ENVIRONMENTAL

Introduction

CCA Combustion Systems (CCA), a CECO Environmental Brand and division of Peerless Manufacturing, is a full-service air pollution control technology company based in Monroe, Connecticut servicing the utility and large industrial power industry. CCA offers a variety of technology solutions to the industry for NOx and CO reductions.

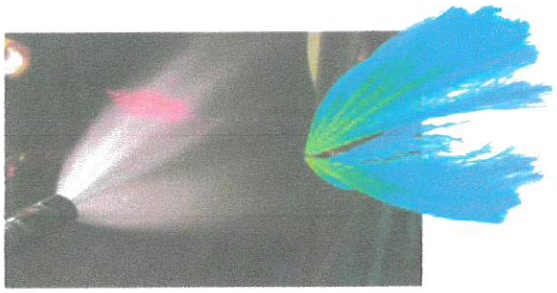
CCA's equipment offerings for new and retrofit applications include:

- *Low NOx burners (LNB) for natural gas, oil, and coal*
- *Overfire air (OFA) systems; Flue gas recirculation (FGR) systems*
- *Selective non catalytic reduction (SNCR) systems; Selective catalytic reduction (SCR) systems*



CCA's technical services and support offerings include:

- *CFD Modeling Analysis,*
- *Field service optimization, startup, and tuning*
- *Combustion Expertise*
- *Diagnostic testing*
- *Atomization characterization in our in-house spray lab*



Overview

CCA is pleased to submit our proposal to engineer, design, and supply one (1) SCR system to be installed by others on 1 NG GT Exhaust system. Our scope is detailed herein and is summarized as follows:

- **Option A – Vaporizer/AIG SCR**
  - (1) CCA patented SCR system including:
    - (1) Urea Vaporizer Skid
    - (1) Injection Skid with PLC
    - (1) Lots of NOx Catalyst
    - (1) Catalyst Reactor Housing
      - (1) Integrated AIG / Manifold Assemblies
    - (1) Storage and Handling System
      - (1) Urea tank
      - (1) Truck unloading Skid
      - (1) Forwarding Pump Skid

Commercial

ITEM	QUANTITY	DESCRIPTION	Price
A	1	SCR System as Described Below	$2,300,000.00
		OPTIONAL ADDERS	
B			
C			

All pricing ex-works, in US dollars and is based on CECO's standard terms and conditions. Freight and Taxes are not included. Freight estimate provided for information.

CECO ENVIRONMENTAL

Design Data

ALL4-55 MW GT SCR-SCR DATA

CASE	#	1
CONDITION	TYPE	100% NG
FUEL	TYPE	Nat Gas
GAS FLOW	LBS/HR	1,047,779
O2	%	14.70
H2O	%	11.0%
CO2	%	3.5%
CATALYST TEMP	F	550
INLET NOX	PPM @15%O2	25
OUTLET NOX	PPM @15%O2	3
SYSTEM PRESSURE DROP	INWC	<3.5
REACTOR DIMENSIONS	FT	13.5'Wx37.5'Hx18'D
NH3 SLIP	PPM @15%O2	<10
INJECTION RATE	GPH	6.5
SCR REAGENT	Urea	32.5%
ATOMIZING AIR USAGE	SCFM/PSI	20/80

CECO ENVIRONMENTAL

Scope of Supply

Vaporizer/AIG SCR System

The system utilizes direct (air atomized) injection of aqueous reagent (ammonia) via injectors mounted to a duct of a hot air/gas supply. The injector will inject the required amount of reagent into the hot gas stream as a fine mist. The water will be vaporized from the solution in the injection/mixing duct. The ammonia gas will be fed through an AIG located upstream of the SCR catalyst in the main exhaust flow.

The final duct work and AIG layout and design can be determined after further discussion on the layout and space considerations. CFD modeling can determine if any flow conditioning devices or duct modifications will need to be added to the duct work design to achieve adequate RMS velocity distribution across the AIG and catalyst. CFD Modeling is performed using FLUENT modeling software by an experienced CCA engineer.

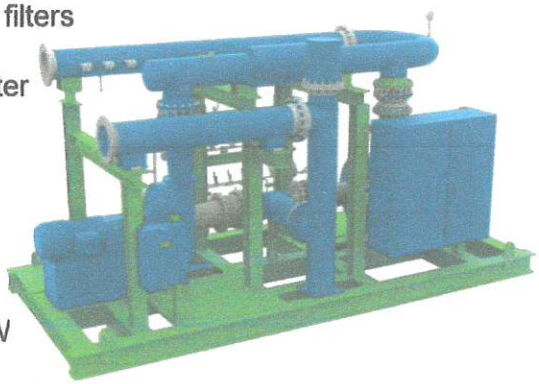
Note: *The decomposition of aqueous reagent in a continuous side stream is covered by CCA's US Patent No. 8,815,197.*

Major Equipment

Below is a summary of the major equipment supplied by CCA for **each unit**

Equipment for Vaporizer/AIG SCR System:

- **1 – Reagent Injection System**
  - Factory assembled and tested
  - Control Panel
    - AB Compact Logix
    - AB 10" PV Color HMI
  - Includes all necessary temperature, pressure and flow devises for a fully functional system
  - Injection Metering Station
    - 1 x 100% Flow Control valve
    - 2 x 100% Reagent Metering Pumps
    - 2 x 100% Dual / Redundant Reagent Filters
      - SS 325 mesh basket filters
    - Injection Flow Transmitter
    - Injection Pressure Transmitter
  - Atomizing air control equipment
  - Air Assisted Injectors
  - Mounted to Vaporizer Skid



- **1 – Urea Vaporizer Skid**
  - 2 x 100%-10 HP Dilution Air Fan
  - 1 x 100% Electric Heater – 250 KW
  - One injection / mixing duct
    - Continuous duct vaporization design

- **1 – Catalyst Reactor**
  - Horizontal flow design
  - Carbon Steel Housing
    - *Externally Insulated by Others*
  - Side access door
  - **1 – Ammonia Injection Grid (AIG) and Manifold**
    - Horizontal flow design
    - CCA/Peerless Manifold and EDGE® AIG design
      - Stainless Steel Construction
      - All necessary balancing valves and flow monitoring devises

- **1- Lot of SCR Catalyst**
  - Honeycomb substrate
  - Cormetech, Umicore or Equal
  - Catalyst supplied in modules for field installation into the reactor by others based on project details
    - Lifting device and monorail included

Equipment for Urea Storage and Handling

- **1- Truck Unloading Station**
  - Truck Unloading Stand:
    - Valves and Instrumentation:
      - 2" Connections
      - Manual Shut off Valve-Ball Valve

- **1- Storage Tank**
  - Urea storage tank
    - Material: FRP or poly plastic
    - Orientation: Vertical
    - Pressure rating: atmospheric *(vented tank)*
    - Tank Heat Blankets – Factory Installed
    - 2" Foam Insulation – Factory Installed
    - Double wall construction
      - In wall leak detection and alarm
      - May eliminate need for secondary containment area
  - Valves and Instrumentation
    - Shut Off Valve
    - Level Transmitter
    - Manual Drain Valves
    - Ladder for top access
  - Storage Capacity
    - 8,500 Gallons / 30 Days

- **(1) Urea Circulation Pump Skid**
  - The circulation skid is the primary module to maintain the circulation of reagent to the SCR Injection Metering Skid as well as to recirculate the reagent to the storage tanks.
  - 2 x 100% Mag-drive type forwarding/recirculation pump
    - SS/EPDM Wetted Parts
  - Skid piping and tubing material: 304/316L SS
  - Valves and Instrumentation:
    - One (1) Pressure Gauge
    - One (1) Pressure Safety Valve
    - One (1) Pressure Switch
    - One (1) Manual Back Pressure Regulator
    - Lot Manual Isolation Valves
  - One (1) Dual Basket Strainer
    - One (1) DP Indicator
  - One (1) Manual Water Purge Connection
    - One (1) Swing Check Valves
    - One (1) Manual Shut Off Valve
  - Free standing base
  - 1 Local Junction Box
  - Instrument Trim / Fittings / Drains
  - FAT Test Included
  - Located near storage tank

Engineering Services

BASIC ENGINEERING AND DESIGN CECO CCA E&D	CECO CCA	OPTIONAL	BUYER	OUT OF SCOPE
Drawing and Document Index (if requested)	X			
P&IDs	X			
Component Specification	X			
Paint Specification	X			
Piping Specification	X			
I-O List	X			
Dilution air or exhaust blower & motor data (includes fan curves, motor drawing, motor wiring diagrams, motor performance sheet, cut sheets of auxiliary equipment)	X			
Inspection and Test Plan	X			
Utility Consumption List (includes electricity and air users)	X			
Weld Procedures and Supporting PQRs	X			
Spare Parts List	X			
Shipping Bill of Material	X			
Operation & Maintenance manuals – one electronic copy	X			
Equipment general arrangement drawings (including location of anchor bolts)	X			
Design of anchor bolts (size and length)			X	
Design of insulation (if applicable)	X			

Supply and installation of insulation (if applicable)			X	
PE Stamp (can be included for an additional cost)				X
Design, supply, and installation of heat tracing or instrument protection (if applicable)			X	
Computation Fluid Dynamics (CFD) Modeling		X		

Notes / Clarifications

1. 480/3/60 power are to be field wired to each fan/blower.
2. 3x 120 VAC/20 Amp circuits are to be field wired to each metering skid.
3. Unloading and positioning of the skids is by others.
4. Catalyst Installation is by others.
5. Gas Path and Reactor Dimensions can be adjusted to meet site layout, duct work / economizer dimensions.
6. CCA uses a patented method to decompose liquid urea to ammonia gas
7. The proposed test grid is required to offer guarantees

CECO CCA/PEERLESS STANDARD DESIGN SPECIFICATIONS:

Paint Specification:

Surface Preparation: SSPC SP-6, Commercial Blast Cleaning

Primer: Inorganic Zinc Primer, Carboline, Carbo Zinc 11, Gray #0700, 2-3 mils DFT

Top Coat: Carboline Carbothane 133HB, 2-2.5 mils, 4701 Gray White Color

** Applies to all CS surfaces that are not ultimately insulated (either in Peerless' shop, other shop, or in the field):*

*** All stainless steel surfaces (ferric or austenitic) will be SSPC SP-1 solvent cleaned only.*

**** Valves will not be painted (primer or top coat) regardless of material of valve or material of line in which the valve is installed*

Piping Design, Fabrication, and Testing Specifications:

Aqueous Ammonia Systems: ASME/ANSI B31.1

** Please note the AIG lances are considered specialty equipment, not piping, and therefore are not subjected the above design codes.*

All structural welding (e.g., AFCU skid base) will be designed, fabricated, and tested to ASME code, Section IX

Electrical Classification:

Enclosure Type: NEMA 4

IEC Enclosure Class: IP56

Area Classification: Non-hazardous

Native format of all drawings: AutoCAD 2020

Native format of all documents: Microsoft Word, Excel, Adobe Acrobat

** Please note all drawings and documents will be officially submitted in Adobe Acrobat format*

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COMPONENT	STANDARD SUPPLIER	TECHNICALLY ACCEPTABLE ALTERNATES (Additional Cost may Apply)
Dilution Blower (high temp exhaust)	Robinson	
Dilution Blower (ambient air)	Chicago Blower	AirTech, Atlantic, Cincinnati, Air Pro Fan
Dilution Blower Motors (either type)	TECO Westinghouse	Reliance, Baldor, Siemens, GE
Electric Heater (flanged immersion style)	Chromalox	Watlow, CCI Thermal
Electric Heater Power Panels	Peerless	Chromalox
Valves – Gate (forged, smaller than 2")	Vogt	Powell, Velan, SVF
Valves – Gate (cast, 2" and larger)	Powell	Velan, Vogt, SVF
Valves – Ball	Marwin	Velan, KF Contromatics, Metso (Jamesbury), A-T Controls, Apollo, SVF, Flow-tek
Valves – Check (wafer style)	Crane	Champion, Powell, Vogt
Valves – Butterfly	Keystone	WKM, A-T Controls, Pratt
Valves – Globe	Velan	Vogt, Powell, SVF
Damper	Effox, Advanced Valve Design	Shanrod
Thermocouple/Thermowell	Rosemount	STI, East Coast Sensor
RTD/Thermowell	Rosemount	STI
Temperature Indicator (thermometer)	Wika	Ashcroft
Temperature Transmitter	Rosemount	Honeywell
Pressure Gauge	Wika	Ashcroft, 3D Instruments, US Gauge, McDaniel, ReoTemp
Differential Pressure Gauge	Midwest	Ashcroft, US Gauge, McDaniel, ReoTemp
Pressure transmitter	Rosemount	Honeywell, Schneider/Foxboro, Yokagawa, Azbil
Differential pressure transmitter	Rosemount	Honeywell, Schneider/Foxboro, Yokagawa, Azbil
Pressure switch	SOR	Ashcroft
Flowmeter/transmitter (ammonia) – coriolis	Micromotion	Schneider
Flowmeter/transmitter (dilution media) –annubar	Rosemount	Veris, Dwyer
Orifice plates	Fluidic Techniques (Vickery-Simms)	Primary Flow Signal, Triad, Daniel Industries, Rosemount, Flowlin, Wyatt
Flow control valve (ammonia line) • Valve • Actuator (pneumatic) • Positioner (I/P) • Air regulator	Fisher-Baumann Baumann Fisher Fisher	Arca (Valve) Arca (Actuator) Westlock (positioner) Bellofram (Air Regulator)
Actuated Damper (exhaust line) • Damper • Actuator (pneumatic)	Effox, Advanced Valve Design Tyco-Morin ASCO	Shanrod Fisher (Field Q) Burkett

• Solenoid valve • Limit Switches • Air regulator	Westlock Fisher	Topworx, Tyco-Avid SMC
Actuated ball valve (ammonia line) • Valve • Actuator (pneumatic) • Solenoid valve • Limit switch • Air regulator	Marwin Tyco-Morin ASCO Westlock Fisher	Velan, KF Contromatics, Metso (Jamesbury), A-T Controls, SVF Rotork, Triac Burkett Topworx, Tyco-Avid, Triac SMC
Needle Valves	AGCO	Hex, Noshok, Anderson Greenwood
Instrument Root Valves	AGCO	Hex, Noshok, Anderson Greenwood
Instrument Manifold Valves	AGCO	Hex, Noshok, Anderson Greenwood
Pressure regulator	Fisher	Belgas, Cash, Cashco
Strainers	Armstrong	Titan, Mueller, Fabrotech
Expansion Joints (metallic)	American Boa	Unaflex, Microflex
Expansion Joints (rubber)	General Rubber	Hystan, US Rubber
Expansion Joints (fabric)	Effox	
Excess flow check valve	MGM	Rego
Level Indicator (float style)	Rochester	Drexelerook
Level indicator (bridled, magnetic flag style)	Magnetrol	K-TEK, Jerguson, Drexelerook
Level Transmitter (guided wave radar style)	Magnetrol	Rosemount, Drexelerook
Flow sight glass (unloading station)	Penberthy	Kenco
Remote level indication (unloading station)	Rosemount	Drexelerook
Pressure relief valve (vapor ammonia)	Crosby	Rego, Farris, Kunkle, Flow Safe
Hydrostatic relief valve (liquid ammonia)	Rego	Crosby, Kunkle, Flow Safe
Vacuum breaker valve (storage tank)	Groth	Apco, Titan
Emergency shut-off valve (unloading station)	Fisher	Rego
Ammonia gas detectors	Scott Instruments	
Junction boxes	Peerless	
PLC's	Allen Bradley (Compact Logix)	GE Fanuc (9030 series)

Peerless reserves the right to provide alternate suppliers

COMMERCIAL TERMS:

For your consideration, this proposal is issued with the below terms and conditions, CECO Environmental Corp. "General Terms and Conditions for the Sale of Goods and Services". CECO Environmental Corp. is the parent company of Peerless Mfg. Co. and CCA Combustion Systems is a division of Peerless Mfg. Co. We are open to the discussion of negotiated, mutually beneficial terms.

A. **PROPOSAL PRICE:** The price proposed is for the design, materials, or components listed. If specific design conditions differ from the inquiry, the specifications shall be modified, and an equitable adjustment shall be made in the contract price or delivery schedule, or both. Any changes in this quotation will be submitted and approved in writing.

B. **DELIVERY:** Typical delivery for catalyst and all equipment is within thirty (30) weeks from the order date, contingent upon the timely return of approved drawings/documents. Storage fees will be charged if delivery is delayed beyond the project schedule for delays not caused by Peerless Mfg. Co. (Peerless). These charges will be imposed at the time of the delay.

C. **TRANSPORTATION:** Shipment of the equipment shall be via Motor Freight, Ex Works, Manufacturing Point. No allowance has been made for any freight charges, special packaging, or export packaging / crating.

D. **EXCLUDED ITEMS:** The quoted price does not include any custom duties, tariffs, import fees, income tax, nor any other taxes, duties, levies, etc., imposed by governmental organizations. Equipment delivered to the following states will require a Tax Exemption Certificate to exclude those current state taxes from our invoice: Arizona, California, Georgia, Kentucky, Tennessee, and Texas.

E. **VALIDITY:** The offered price is valid for thirty (30) days from the proposal date, and thereafter, is subject to our acceptance. Due to the current fluctuation in steel prices, all pricing in this proposal must be confirmed at time of purchase order.

F. **PAYMENT TERMS: The following payment milestones are offered for consideration. We are open to discussion of these milestone as may be needed to meet the needs of the project.**

Payment shall be made, net 30 days, according to the following schedule:
20% - upon receipt of order
10% - upon submittal of approval drawings
25% - upon Peerless' release to purchase materials
25% - upon Peerless' notification to proceed with fabrication
20% - upon Peerless' notification that equipment is ready for shipment.

G. **CHANGES / CANCELLATION SCHEDULE:** Any changes to or cancellation of the Agreement, once accepted, are subject to written approval by Peerless under conditions that shall include, among other things, protection against any loss to Peerless.

Cancellation Schedule:
25% - after receipt of purchase order
50% - after submittal of general arrangement drawings
90% - after release to purchase materials
100% - upon release to fabricate

H. **WARRANTY:**

1. All hardware is under warranty for eighteen (18) months from contracted delivery or twelve (12) months from scheduled start-up, whichever occurs first. The extent of the warranty includes replacement of defective components and is limited to material only.

2. Peerless is not responsible for any damage resulting from mis-operation or improper maintenance of the unit as described in the Peerless Operation & Maintenance Manuals for this project. Warranty is voided if the system is not operated and maintained in accordance with the Operation & Maintenance Manual.

3. The aqueous ammonia or aqueous urea must be reagent grade, diluted with fully de-ionized water to the % by weight specified above.

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Schedule

Based on current workload, CCA provides the following preliminary estimated schedule:
TBD

Terms of Payment

Schedule in above section F
Payment schedule excludes engineering field support services quoted.
Payment terms: NET 30

Validity

This is a budget proposal.

Exclusions

1. Installation / mounting of equipment
2. Certified emissions testing
3. Insulation / heat tracing
4. Connecting duct work / IC Piping to Ammonia skid from boiler duct
5. Foundations
6. Structural engineering and supports/hangers for SCR reactor box
7. Walkways / stairs / handrails
8. Field Tubing and Piping for Air and Reagent
9. Interconnecting flu gas duct work
10. Piping from bulk storage to recirculation skid and to injection skid
11. Atomizing air tubing **(1/2" SS)** from compressed air supply to injectors
12. Expansion joints not located on CCA skids
13. Field wiring
14. Shipping / Freight
15. Urea/Ammonia Reagent
16. Cable trays / glands not located on CCA supplied skids
17. Junction boxes not located on CCA supplied skids
18. Turbine / Boiler operating costs
19. Eye wash / safety showers
20. Unloading skid spray nozzles
21. CEMS / Emissions Analyzers
22. Compressed Air Supply

Performance Warranty Statement

Peerless equipment is guaranteed against defects or poor performance which occur during the guarantee period.

Peerless agrees repair or replace any equipment designed and supplied by us which is found to be defective in materials or workmanship within 18 months from delivery or 12 months from initial operation, whichever occurs sooner provided we are given written notice of such defects as soon as they have been discovered. Upon such notification,

Peerless shall propose a method to achieve a satisfactory correction of the defect, provided that such method need not involve premium costs (such as premium costs of overtime labor and air freight) or transportation, insurance or installation costs, except to the extent that Peerless was required to incur such costs for the original supply of the item involved. The Purchaser may agree to Peerless' proposed method or select another method. Peerless shall perform the corrective work in accordance with the method selected by the purchaser and the Purchaser shall reimburse Peerless for any difference in cost to Peerless between the method selected and the method proposed by Peerless. Such defects shall be exclusive of time effects, corrosion, erosion, or miss-operation of the process or equipment. Equipment which is not of Peerless' design and/or manufacture (valves, instruments, controls, subcontract items, etc.) will be warranted by their respective manufacturers, however, Buyer need only look to Peerless for corrective action as Peerless will act as liaison for Buyer in this respect.

CATALYST WARRANTY CONDITIONS

1. Unit operating conditions shall be within the limits of design cases specified in the Quotation.
2. The catalysts must be handled, operated, and maintained according to Peerless instruction.
3. Peerless maintains warranty protection as long as normal furnace start-up and shut-down procedures are followed and no moisture other than from flue gas or ambient air is present. The allowed start-up and shut-down temperature gradient for the catalyst is 10°C/min below and 100°C/min above the flue gas dew point.
4. Catalyst has been designed to accommodate profile maldistributions, based on a Normal Distribution, per SCR Catalyst Quotation.
5. Peerless is not responsible for catalyst deterioration caused by reagent drainage or other liquid contact to catalyst.
6. Suitable means must be employed, if needed, to clean catalyst masked or plugged by firing of particulate producing fuel. Customer will inspect visually at shutdowns and clean, as needed.
7. Access must be provided to Peerless for visual inspection and catalyst sampling. Peerless reserves the right to review the Unit's operating data at any time during the warranty period.
8. Customer must provide catalyst samples to Peerless, if requested during the warranty period, in order to maintain warranties. Peerless will provide an advance written request of a need to obtain catalyst samples, construction and sampling method that permits ease of extraction and replacement of samples, and schedule coordination for the operating plant's convenience.

9. Customer will provide a copy of all procedures and methods of analysis to be employed in catalyst evaluation for Acceptance and anytime throughout the warranty period.

CATALYST WARRANTY FULLFILLMENT

1. Peerless warranties are fulfilled at the end of the period stated in SCR Catalyst Quotation if the results:
    a. If the results of on-site tests during the warranty period indicate that the warranted values are not being met, Customer will conduct an on-site investigation to determine the cause of non-performance. If the catalyst is suspect, Peerless will conduct laboratory tests, according to the conditions specified in SCR Catalyst Quotation, to verify the catalyst performance.
    b. If the results of the laboratory tests indicate that the warranted values are being met, Peerless warranties will be deemed in fulfilment at this time and Customer will continue their investigation to determine the cause of non-fulfilment. Customer will compensate Peerless for the cost of laboratory evaluation.
    c. If the results of the laboratory tests indicate that the warranty values are not being met, Peerless will absorb cost of laboratory evaluation. Peerless will in its sole discretion, either (a) repair, replace, or add catalyst, or (b) offer Buyer a credit against the purchase price for the value of the catalyst failing to meet warranties or performance specification on a pro rata basis. Peerless's selection of (a) or (b) shall be Buyer's sole and exclusive remedy for such breach of the warranties or performance guarantees or specifications or criteria. No back-charges, administrative costs, or other fees or costs will be payable by Seller in conjunction with the exclusive remedies set forth herein.

GENERAL WARRANTY STATEMENTS

1. All guarantees or warranties granted herein shall be contingent upon Customer fully meeting all its obligations identified in this proposal in a timely manner. This includes the supply of information required to design the system, and approval of drawings within the allotted time designated.
2. All guarantees or warranties granted herein shall be contingent upon Customer purchasing start-up and optimization support from CECO.

Spec Exceptions

1. NA

We thank you for the opportunity to provide this proposal.
Regards,
Jeff Broderick

Attachments:

- Terms and Conditions

Contact Information

Jeff Broderick
CECO Environmental
Peerless I CCA Combustion Systems
884 Main Street
Monroe, Ct. 06468
jbroderick@onececo.com
203-268-3139, ext. 119

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COMMERCIAL CLARIFICATIONS AND EXCEPTIONS:

- Peerless Mfg. Co. has not provided any comments to commercial terms and conditions. If our proposal is otherwise technically acceptable, Peerless requests acceptance of CECO/Peerless Standard Terms and Conditions or to negotiate a mutually agreed upon set of terms and conditions.

Peerless requests the following major items to be considered as part of the final negotiations.

- ✓ Important information from Peerless' proposal and e-mails to be incorporated in the final contract.
- ✓ Consequential Damage Disclaimer: Seller shall not be liable for incidental, special, punitive, or consequential damages, including loss of profit or revenue, for any breach of this contract.
- ✓ Limitation of Liability
- ✓ Suspension of work: Peerless requires a cap on any potential period of suspension.
- ✓ Clear Warranty Language: See Peerless standard warranty.
- ✓ Default (Time to Cure): Peerless requires a reasonable time to commence to cure for all events of default (not less than 15 days) after notice of the supposed default or breach.
- ✓ Force Majeure Clause including Pandemics / Epidemics
- ✓ Intellectual Property of Peerless: Unless otherwise specified in this contract, buyer shall not obtain any rights or interests in any patent, copyright, confidential know-how, trademark, process or other proprietary right owned by seller or any other party and any proprietary rights developed by seller pursuant to the contract shall belong to seller.
- ✓ Exclusivity of Warranty: EXCEPT AS EXPRESSLY SET FORTH IN THIS CONTRACT, SELLER MAKES NO, AND SPECIFICALLY DISCLAIMS, REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, REGARDING ANY MATTER, INCLUDING THE MERCHANTABILITY, SUITABILITY, ORIGINALITY, FITNESS FOR A PARTICULAR USE OR PURPOSE OR RESULTS TO BE DERIVED FROM ANY GOODS, SERVICES OR OTHER ITEMS PROVIDED UNDER THIS CONTRACT.
- ✓ Confidentiality: Buyer shall handle confidentially all designs and specifications and technical, commercial, financial and other information which Buyer receives from Seller pursuant to this transaction and shall not use, copy or communicate such information to others except in the performance of Buyer's obligations pursuant to this Purchase Order or as necessary for operation and use of the goods, without prior written consent of and the payment of fair compensation to Seller. If Buyer discloses such information to any other party, as permitted by this paragraph, Buyer shall secure such party's written agreement to the same confidentiality restrictions as stipulated herein and shall cause such party to comply with such confidentiality restrictions.
- ✓ Exports: If all or any portion of the goods to be provided pursuant to this Quotation are to be exported from the United States, Buyer agrees that such exportation is subject in all respects to, and Buyer shall comply in all respects with, United States laws with respect to such export and subsequent re-export of such goods. Seller makes no representation or warranty relative to the export or re-export of such goods.
- ✓ Dispute Resolution, binding arbitration
- ✓ Change Orders: The Purchaser may be permitted to modify the specifications for the goods which Peerless is manufacturing with Peerless' written agreement. If the change effects either the price or delivery date for the goods, Peerless shall have the ability to notify the purchaser and require that, before continuing performance, the parties must agree in writing upon an equitable adjustment of the price (which may be increased or reduced) and/or the delivery date to reflect the effect of the change. In the event that the purchaser requests a change which itself or as a result of negotiations between Peerless and purchaser concerning the impact of the change, results in the need for an extension of the time required for performance by Peerless, then the time for such performance must be equitably extended in light of such matters.
- ✓ No "time is of the essence" language
- ✓ Submission to jurisdiction of Buyer's courts: Peerless prefers to submit to mutually agreed upon

jurisdiction of courts in the contract.

- ✓ No payment in foreign currency, unless already agreed to by Peerless and the Buyer during the proposal stage of the contract.
- ✓ Peerless requests to limit liquidated damages (in the aggregate) to 5% of the contract price.
- ✓ Indemnities: The intellectual property indemnity shall not apply to the extent any infringement or violation results from (i) the combination or use of the equipment provided by Peerless with other equipment, software or materials, (ii) use of equipment provided by Peerless other than as anticipated by the specifications or other than in accordance with operating instructions provided by Peerless, (iii) work performed by, or other acts or omissions of, the Buyer or any party other than Peerless or (iv) modifications to the equipment provided by any party other than by Peerless. Indemnities should not apply unless the Buyer (i) promptly notifies Peerless, in writing, of any claim and (ii) reasonably cooperates with Peerless and gives Peerless full opportunity to control the response to the claim. Indemnities must constitute the sole and exclusive remedy for the circumstance to which they relate.
- ✓ No prohibitions on subcontracting.
- ✓ Ownership: Unless otherwise specified in this Contract, Buyer shall not obtain any rights or interests in any patent, copyright, proprietary right or confidential know-how, trademark or process owned by Seller or any other party. Any and all intellectual property rights, including rights of patent, copyright and trademark, in any reports, drawings, documents, specifications, calculations, confidential know-how, materials, or processes (the "Intellectual Property Rights") owned or created by Seller and used or embodied in goods or services covered by this Quotation shall remain the sole property of Seller. Any and all Intellectual Property Rights developed by Seller, whether in the provision of goods and services covered by this Quotation or independently thereof, shall belong to Seller. Any and all right, title or interest that Buyer or any other party may have or obtain in or to Seller's Intellectual Property Rights is hereby assigned to Seller and Buyer shall take, or cause to be taken, all necessary or appropriate actions to vest such Intellectual Property Rights in Seller.
- ✓ No setoff rights pursuant to which the Buyer can "setoff" against amounts due to Peerless any amounts supposedly owed by Peerless to the Buyer, either under the contract at hand or another contract between the parties.
- ✓ Reservation of right to accept goods or services: Buyer shall promptly inspect the goods or services and accept or reject them.
- ✓ No waiver of liens by Peerless or its subcontractors except conditioned on payment.
- ✓ Interest on Unpaid Balances: Amounts not paid when due by buyer shall bear interest at the highest lawful rate on the unpaid amount from the due date until paid; provided, however, extended payment terms are acceptable only if agreed upon in writing by Seller.

- ✓ Termination for convenience whether in whole or in part: Peerless requires payment for work performed and payment for expenses which will result from such termination (e.g., termination of related contracts and reassignment of people and resources).
- ✓ The contract should specifically identify any codes or laws that Peerless must comply with, and the Purchaser shall be responsible for providing a copy of such regulations for Seller's review.

GENERAL TERMS AND CONDITIONS FOR THE SALE OF GOODS AND SERVICES

1. Applicability.

(a) These terms and conditions of sale (these "**Terms**") are the only terms which govern the sale of the goods, including equipment, machinery, materials, consumables (collectively, "**Goods**") and services ("**Services**") by CECO Environmental Corp. and all of its affiliated companies (collectively, "**Seller**") to the buyer named on the signature line of these Terms ("**Buyer**"). Any provisions or conditions of Buyer's order which are in any way inconsistent with, or in addition to these Terms shall not be binding on Seller, and shall not be applicable, except with Seller's written acceptance.

(b) The accompanying quotation (the "**Sales Confirmation**") and these Terms (collectively, this "**Agreement**") comprise the entire agreement between the parties, and supersede all prior or contemporaneous understandings, agreements, negotiations, representations and warranties, and communications, both written and oral. These Terms prevail over any of Buyer's general terms and conditions of purchase regardless whether or when Buyer has submitted its purchase order or such terms. Fulfillment of Buyer's order does not constitute acceptance of any of Buyer's terms and conditions and does not serve to modify or amend these Terms.

(c) Notwithstanding anything to the contrary contained in this Agreement, Seller may, from time to time change the Services without the consent of Buyer provided that such changes do not materially affect the nature or scope of the Services, or the fees or any performance dates set forth in the Sales Confirmation.

2. **Delivery of Goods and Performance of Services**.

(a) The Goods will be shipped within a reasonable time after the receipt of Buyer's purchase order. Seller shall not be liable for any delays, loss or damage in transit.

(b) Unless otherwise agreed in writing by the parties, Seller shall ship the Goods F.O.B. from Seller's location (the "**Delivery Point**") using Seller's standard methods for packaging and shipping such Goods. Buyer shall take delivery of the Goods within ten (10) days of Seller's written notice that the Goods have been shipped to the Delivery Point. Buyer shall be responsible for all loading costs and provide equipment and labor reasonably suited for receipt of the Goods at the Delivery Point.

(c) Seller may, in its sole discretion, without liability or penalty, make partial shipments of Goods to Buyer. Each shipment will constitute a separate sale, and Buyer shall pay for the units shipped whether such shipment is in whole or partial fulfillment of Buyer's purchase order.

(d) If for any reason Buyer fails to accept delivery of any of the Goods on the date fixed pursuant to Seller's notice that the Goods have been delivered at the Delivery Point, or if Seller is unable to deliver the Goods at the Delivery Point on such date because Buyer has not provided appropriate instructions, documents, licenses or authorizations: (i) risk of loss to the Goods shall pass to Buyer; (ii) the Goods shall be deemed to have been delivered; and (iii) Seller, at its option, may store the Goods until Buyer picks them up, whereupon Buyer shall be liable for all related costs and expenses (including, without limitation, storage and insurance).

(e) Seller shall use commercially reasonable efforts to meet any performance dates to render the Services specified in the Sales Confirmation, and any such dates shall be estimates only. Seller shall have no liability for delays in shipment or delivery of oversized items, or delays in obtaining transit permits from governmental authorities for such shipments.

(f) With respect to the Services, Buyer shall (i) cooperate with Seller in all matters relating to the Services and provide such access to Buyer's premises, and such office accommodation and other facilities as may reasonably be requested by Seller, for the purposes of performing the Services; (ii) respond promptly to any Seller request to provide direction, information, approvals, authorizations or decisions that are reasonably necessary for Seller to perform Services in accordance with the requirements of this Agreement; (iii) provide such customer materials or information as Seller may reasonably request to carry out the Services in a timely manner and ensure that such customer materials or information are complete and accurate in all material respects; and (iv) obtain and maintain all necessary licenses and consents and comply with all applicable laws in relation to the Services before the date on which the Services are to start.

(g) Any and all data books, instructions, operating manuals and specifications documents will be provided by Seller in an electronic format free of charge. Bound versions may be provided at Buyer's request, subject to additional charges.

3. **Non-Delivery**.

(a) The quantity of any installment of Goods as recorded by Seller on dispatch from Seller's place of business is conclusive evidence of the quantity received by Buyer on delivery unless Buyer can provide conclusive evidence proving the contrary.

(b) Seller shall not be liable for any non-delivery of Goods (even if caused by Seller's negligence) unless Buyer gives written notice to Seller of the non-delivery within ten (10) days of the date when the Goods would in the ordinary course of events have been received.

(c) Any liability of Seller for non-delivery of the Goods shall be limited to replacing the Goods within a reasonable time or adjusting the invoice respecting such Goods to reflect the actual quantity delivered.

(d) The remedies set forth in this **Section 3** are Buyer's exclusive remedies for the delivery of Nonconforming Goods. Except as provided under **Section 3(c)**, all sales of Goods to Buyer are made on a one-way basis and Buyer has no right to return Goods purchased under this Agreement to Seller.

4. **Shipping Terms**. Delivery of the Goods shall be made F.O.B. point of shipment at Seller's location.

5. **Title and Risk of Loss**. Title and risk of loss passes to Buyer F.O.B. point of shipment unless otherwise specified. As collateral security for the payment of the purchase price of the Goods, Buyer hereby grants to Seller a lien on and security interest in and to all of the right, title and interest of Buyer in, to and under the Goods, wherever located, and whether now existing or hereafter arising or acquired from time to time, and in all accessions thereto and replacements or modifications thereof, as well as all proceeds (including insurance proceeds) of the foregoing. The security interest granted under this provision constitutes a purchase money security interest under the Uniform Commercial Code.

6. **Buyer's Acts or Omissions**. If Seller's performance of its obligations under this Agreement is prevented or delayed by any act or omission of Buyer or its agents, subcontractors, consultants or employees, Seller shall not be deemed in breach of its obligations under this Agreement or otherwise liable for any costs, charges or losses sustained or incurred by Buyer, in each case, to the extent arising directly or indirectly from such prevention or delay.

7. **Inspection and Rejection of Nonconforming Goods**.
(a) Buyer shall inspect the Goods within ten (10) days of receipt ("**Inspection Period**"). Buyer will be deemed to have accepted the Goods unless it promptly notifies Seller in writing of any Nonconforming Goods during the Inspection Period and furnishes such written evidence or other documentation as reasonably required by Seller. "**Nonconforming Goods**" means only the following: (i) product shipped is different than identified in Buyer's purchase order; or (ii) product's label or packaging incorrectly identifies its contents.

(b) If Buyer timely notifies Seller of any Nonconforming Goods, Seller shall, in its sole discretion, (i) replace such Nonconforming Goods with conforming Goods, or (ii) credit or refund the Price for such Nonconforming Goods, together with any reasonable shipping and handling expenses incurred by Buyer in connection therewith. Buyer shall ship, at its expense and risk of loss, the Nonconforming Goods to Seller's facility. If Seller exercises its option to replace Nonconforming Goods, Seller shall, after receiving Buyer's shipment of Nonconforming Goods, ship to Buyer, at Buyer's expense and risk of loss, the replaced Goods to the Delivery Point.

(c) Buyer acknowledges and agrees that the remedies set forth in **Section 7(b)** are Buyer's exclusive remedies for the delivery of Nonconforming Goods. Except as provided under **Section 7(b)**, all sales of Goods to Buyer are made on a one-way basis and Buyer has no right to return Goods purchased under this Agreement to Seller.

8. **Price**.
(a) Buyer shall purchase the Goods and Services from Seller at the prices (the "**Prices**") set forth in Seller's quotation or bid. Prices may be increased by Seller before delivery of the Goods to a carrier for shipment to Buyer, due to Seller's increased cost of supply. In such event, these Terms shall be construed as if the increased prices were originally inserted herein, and Buyer shall be billed by Seller on the basis of such increased prices. All Prices are F.O.B. point of shipment unless otherwise specified.

(b) Buyer agrees to reimburse Seller for all reasonable travel and out-of-pocket expenses incurred by Seller in connection with the performance of the Services.

(c) All Prices are exclusive of all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any Governmental Authority on any amounts payable by Buyer. Buyer shall be responsible for all such charges, costs and taxes; provided, that, Buyer shall not be responsible for any taxes imposed on, or with respect to, Seller's income, revenues, gross receipts, personnel or real or personal property or other assets.

9. **Payment Terms**.
(a) Buyer shall pay all invoiced amounts due to Seller within thirty (30) days from the date of Seller's invoice. Buyer shall make all payments hereunder in US dollars.

(b) Buyer shall pay interest on all late payments at the lesser of the rate of 1.5% per month or the highest rate permissible under applicable law, calculated daily and compounded monthly. Buyer shall reimburse Seller for all costs incurred in collecting any late payments, including, without limitation, reasonable attorneys' fees. In addition to all other remedies available under these Terms or at law (which Seller does not waive by the exercise of any rights hereunder), Seller shall be entitled to suspend the delivery of any Goods or performance of any Services if Buyer fails to pay any amounts when due hereunder and such failure continues for ten (10) days following written notice thereof.

(c) Progress payments specified in the Sales Confirmation will apply if the total Prices for the Goods and Services purchased hereunder is equal to or greater than $250,000.00 USD.

(d) Buyer shall not withhold payment of any amounts due and payable by reason of any set-off of any claim or dispute with Seller, whether relating to Seller's breach, bankruptcy or otherwise.

10. **Suspensions and Cancellations**.
(a) No cancellations of an order or any portion of an order by Buyer will be effective unless accepted by Seller in writing. Accepted cancellations will be subject to a charge to cover all costs and expenses incurred by Seller through the date of cancellation, plus reasonable cancellation costs and a reasonable profit margin on the completed work. Cancellation of orders for Goods made to order and not part of Seller's regular stock will not be accepted after fabrication has commenced.
(b) In the event Buyer suspends Seller's performance of work, Buyer shall reimburse Seller for all costs incurred by Seller as a result of the suspension, including, without limitation, all borrowing and opportunity costs. In the event a suspension exceeds 180 days in duration, in addition to being entitled to full reimbursement of costs, Seller shall have the unqualified right to cancel the unfinished portion of the order without liability.

11. **Limited Warranty**.
(a) Subject to the other provisions of this **Section 11**, Seller warrants to Buyer that for a period of the lesser of eighteen (18) months from the date of shipment of the Goods, or twelve (12) months after the Goods are initially placed in operation ("**Warranty Period**"), that such Goods will materially conform to the specifications set forth in Buyer's order and will be free from material defects in material and workmanship.

(b) Seller warrants to Buyer that it shall perform the Services using personnel of required skill, experience and qualifications and in a professional and workmanlike manner in accordance with generally recognized industry standards for similar services and shall devote adequate resources to meet its obligations under this Agreement.

(c) Any performance guarantee of Seller relating to the Goods with regard to compliance with any governmental specifications, including, without limitation, particulate levels or pollution controls, are specifically limited to the time of commissioning or start-up of the Goods in question. It is the Buyer's responsibility to properly maintain the Goods, monitor system performance and take corrective actions.

(d) **EXCEPT FOR THE WARRANTIES SET FORTH IN SECTIONS 11(a) AND 11(b), SELLER MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE GOODS OR SERVICES, INCLUDING ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; OR (c) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY, WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.**

(e) Products manufactured by a third party ("**Third Party Product**") may constitute, contain, be contained in, incorporated into, attached to or packaged together with, the Goods. Third Party Products are not covered by the warranty in **Section 11(a)**. For the avoidance of doubt, **SELLER MAKES NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO ANY THIRD PARTY PRODUCT, INCLUDING ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; (c) WARRANTY OF TITLE; OR (d) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.**

(f) Seller shall not be liable for a breach of the warranties set forth in **Section 11(a)** and **Section 11(b)** unless: (i) Buyer gives written notice of the defective Goods or Services, as the case may be, reasonably described, to Seller within ten (10) days of the time when Buyer discovers or ought to have discovered the defect; (ii) if applicable, Seller is given a reasonable opportunity after receiving the notice of breach of the warranty set forth in **Section 11(a)** to examine such Goods and Buyer (if requested to do so by Seller) returns such Goods to Seller's place of business at Seller's cost for the examination to take place there; and (iii) Seller reasonably verifies Buyer's claim that the Goods or Services are defective.

(g) Seller shall not be liable for a breach of the warranty set forth in **Section 11(a)** and **Section 11(b)** if: (i) Buyer makes any further use of such Goods after giving such notice; (ii) the defect arises because Buyer failed to follow Seller's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Goods; or (iii) Buyer alters or repairs such Goods without the prior written consent of Seller.

(h) Subject to **Section 11(f)** and **Section 11(g)** above, with respect to any such Goods during the Warranty Period, Seller shall, in its sole discretion, either: (i) repair or replace such Goods (or the defective part) or (ii) credit or refund the price of such Goods at the pro rata contract rate provided that, if Seller so requests, Buyer shall, at Seller's expense, return such Goods to Seller. **ALL COSTS OF DISMANTLING, REINSTALLATION AND FREIGHT, AND THE TIME AND EXPENSES OF SELLER'S PERSONNEL FOR SITE TRAVEL AND DIAGNOSIS ONSITE UNDER THIS WARRANTY SHALL BE BORNE BY BUYER.**

(i) Subject to **Section 11(f)** and **Section 11(g)** above, with respect to any Services subject to a claim under the warranty set forth in **Section 11(b)**, Seller shall, in its sole discretion, (i) repair or re-perform the applicable Services or (ii) credit or refund the price of such Services at the pro rata contract rate.

(j) **THE REMEDIES SET FORTH IN SECTION 11(h) AND SECTION 11(i) SHALL BE THE BUYER'S SOLE AND EXCLUSIVE REMEDY AND SELLER'S ENTIRE LIABILITY FOR ANY BREACH OF THE LIMITED WARRANTIES SET FORTH IN SECTION 11(a) AND SECTION 11(b).**

12. **Intellectual Property Rights**.

(a) Buyer acknowledges and agrees that: (i) any and all Seller's intellectual property rights are the sole and exclusive property of Seller or its licensors; (ii) Buyer shall not acquire any ownership interest in any of Seller's intellectual property rights under this Agreement; (iii) any goodwill derived from the use by Buyer of Seller's intellectual property rights inures to the benefit of Seller or its licensors, as the case may be; (iv) if Buyer acquires any intellectual property rights, rights in or relating to any Goods (including any rights in any trademarks, derivative works or patent improvements relating thereto) by operation of law, or otherwise, such rights are deemed and are hereby irrevocably assigned to Seller or its licensors, as the case may be, without further action by either of the parties; and (v) Buyer shall use Seller's intellectual property rights solely for purposes of using the Goods under this Agreement and only in accordance with this Agreement and the instructions of Seller.

(b) Buyer shall not: (i) take any action that interferes with any of Seller's rights in or to Seller's intellectual property rights, including Seller's ownership or exercise thereof; (ii) challenge any right, title or interest of Seller in or to Seller's intellectual property rights; (iii) make any claim or take any action adverse to Seller's ownership of Seller's intellectual property rights; (iv) register or apply for registrations, anywhere in the world, for Seller's trademarks or any other trademark that is similar to Seller's trademarks or that incorporates Seller's trademarks; (v) use any mark, anywhere that is confusingly similar to Seller's trademarks; (vi) engage in any action that tends to disparage, dilute the value of, or reflect negatively on the Goods or any Seller's trademarks; (vii) misappropriate any of Seller's trademarks for use as a domain name without prior written consent from Seller; or (viii) alter, obscure or remove any Seller's trademarks, or trademark or copyright notices or any other proprietary rights notices placed on the Goods, marketing materials or other materials that Seller may provide.

13. **Seller's Intellectual Property Indemnification**.

(a) Subject to the terms and conditions of this Agreement, including **Section 13(b)** and **Section 13(c)**, Seller shall indemnify, defend and hold harmless Buyer from and against all losses awarded against Buyer in a final non-appealable judgment arising out of any claim of a third party alleging that any of the Goods or Buyer receipt or use thereof infringes any intellectual property right of a third party.

(b) If the Goods, or any part of the Goods, becomes, or in Seller's opinion is likely to become, subject to a claim of a third party that qualifies for intellectual property indemnification coverage under this **Section 13**, Seller shall, at its sole option and expense, notify Buyer in writing to cease using all or a part of the Goods, in which case Buyer shall immediately cease all such use of such Goods on receipt of Seller's notice.

(c) Notwithstanding anything to the contrary in this Agreement, Seller is not obligated to indemnify or defend Buyer against any claim (direct or indirect) under **Section 13(a)** if such claim or corresponding losses arise out of or result from, in whole or in part, (i) Buyer's marketing, advertising, promotion or sale or any product containing the Goods; (ii) use of the Goods in combination with any products, materials or equipment supplied to Buyer by a person other than Seller or its authorized representatives, if the infringement would have been avoided by the use of the Goods not so combined; or (iii) any modifications or changes made to the Goods by or on behalf of any person other than Seller or its representatives, if the infringement would have been avoided without such modification or change. Seller shall have no liability for delays in shipment or delivery of oversized items, or delays in obtaining transit permits from governmental authorities for such shipments.

(d) **THIS SECTION 13 SETS FORTH THE ENTIRE LIABILITY AND OBLIGATION OF SELLER AND THE SOLE AND EXCLUSIVE REMEDY FOR BUYER FOR ANY LOSSES COVERED BY SECTION 13.**

14. **Limitation of Liability**.
(a) **IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT OR LOSS OF DATA OR DIMINUTION IN VALUE, OR FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE AND WHETHER OR NOT SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE.**

(b) **IN NO EVENT SHALL SELLER'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EXCEED THE TOTAL OF THE AMOUNTS PAID TO SELLER FOR THE GOODS AND SERVICES SOLD HEREUNDER. THE LIMITATION OF LIABILITY PROVISIONS SET FORTH IN THIS SECTION 14 SHALL APPLY EVEN IF BUYER'S REMEDIES UNDER THIS AGREEMENT FAIL OF THEIR ESSENTIAL PURPOSE.**

(c) The limitation of liability set forth in **Section 14(b)** shall not apply to (i) liability resulting from Seller's gross negligence or willful misconduct or (ii) death or bodily injury to the extent resulting from Seller's negligent acts or omissions.

15. **Insurance**. During the term of this Agreement and for a period of two (2) years thereafter, Buyer shall, at its own expense, maintain and carry insurance in full force and effect which includes, but is not limited to, commercial general liability (including product liability) in a sum no less than $1,000,000, with financially sound and reputable insurers. Upon Seller's request, Buyer shall provide Seller with a certificate of insurance from Buyer's insurer evidencing the insurance coverage specified in these Terms. Buyer shall provide Seller with thirty (30) days' advance written notice in the event of a cancellation or material change in Buyer's insurance policy. Except where prohibited by law, Buyer shall require its insurer to waive all rights of subrogation against Seller's insurers and Seller.

16. **Compliance with Law**.
(a) *Generally*. Buyer shall comply with all applicable laws, regulations and ordinances. Buyer shall maintain in effect all the licenses, permissions, authorizations, consents and permits that it needs to carry out its obligations under this Agreement. Buyer shall comply with all export and import laws of all countries involved in the sale of the Goods under this Agreement or any resale of the Goods by Buyer. Buyer assumes all responsibility for shipments of Goods requiring any government import clearance. Seller may terminate this Agreement if any governmental authority imposes antidumping or countervailing duties or any other penalties on Goods.

(b) *OFAC Representation and Warranty*. Buyer is in compliance with the International Emergency Economic Powers Act (50 U.S.C. § 1701) and all other Laws administered by OFAC or any other Governmental Authority imposing economic sanctions and trade embargoes (**"Economic Sanctions Laws"**) against countries (**"Embargoed Countries"**) and persons designated in such Laws (collectively, **"Embargoed Targets"**). Buyer is not an Embargoed Target or otherwise subject to any Economic Sanctions Law.

(c) *OFAC Covenant*. Without limiting the generality of **Section 16(a)**, Buyer shall comply with all Economic Sanctions Laws. Without limiting the generality of the foregoing, Buyer shall not: (i) directly or indirectly export, re-export, transship or otherwise deliver the Goods or any portion of the Goods to an Embargoed Country or an Embargoed Target; or (ii) broker, finance or otherwise facilitate any transaction in violation of any Economic Sanctions Law.

(d) *Export Regulation (EAR and ITAR) Covenant*. Buyer acknowledges that the Goods, including any software, documentation and any related technical data included with, or contained in, such Goods, and any products utilizing any such Goods, software, documentation or technical data (collectively, **"Regulated Goods"**) may be subject to US export control Laws and regulations, including the Export Administration Regulations promulgated under the Export Administration Act of 1979, and the International Traffic in Arms Regulations administered by the US Department of State. Without limiting the generality of **Section 16(a)**, Buyer shall not, and shall not permit any third parties to, directly or indirectly, export, re-export or release any Regulated Goods to any jurisdiction or country to which, or any party to whom, the export, re-export or release of any Regulated Goods is prohibited by applicable federal or foreign law. Buyer shall be responsible for any breach of this Section by its, and its successors' and permitted assigns', parent, affiliates, employees, officers, directors, partners, members, shareholders, customers agents, distributors, resellers or vendors that are not Buyer.

(e) *Foreign Corrupt Practices Act Representation and Warranty*. Buyer is in compliance with the Foreign Corrupt Practices Act of 1977, as amended (**"FCPA"**) and the UK Bribery Act of 2010 (**"Bribery Act"**). Neither Buyer nor any of its representatives has: (i) used any corporate

funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity or to influence official action; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment; or (iv) failed to disclose fully any contribution or payment made by Buyer (or made by any Person acting on its behalf of which Buyer is aware) that violates the FCPA or the Bribery Act.

(f) *Anti-Bribery Covenant*. Without limiting the generality **of Section 16(a)**, Buyer shall, and shall cause its representatives to, comply with the FCPA and the Bribery Act, including maintaining and complying with all policies and procedures to ensure compliance with these Acts.

17. **Termination**. In addition to any remedies that may be provided under these Terms, Seller may terminate this Agreement with immediate effect upon written notice to Buyer, if Buyer: (a) fails to pay any amount when due under this Agreement and such failure continues for ten (10) days after Buyer's receipt of written notice of nonpayment; (b) has not otherwise performed or complied with any of these Terms, in whole or in part; or (c) becomes insolvent, files a petition for bankruptcy or commences or has commenced against it proceedings relating to bankruptcy, receivership, reorganization or assignment for the benefit of creditors.

18. **Waiver**. No waiver by Seller of any of the provisions of this Agreement is effective unless explicitly set forth in writing and signed by Seller. No failure to exercise, or delay in exercising, any right, remedy, power or privilege arising from this Agreement operates, or may be construed, as a waiver thereof. No single or partial exercise of any right, remedy, power or privilege hereunder precludes any other or further exercise thereof or the exercise of any other right, remedy, power or privilege.

19. **Confidential Information**. All non-public, confidential or proprietary information of Seller, including but not limited to, specifications, samples, patterns, designs, plans, drawings, documents, data, business operations, customer lists, pricing, discounts or rebates, disclosed by Seller to Buyer, whether disclosed orally or disclosed or accessed in written, electronic or other form or media, and whether or not marked, designated or otherwise identified as "confidential" in connection with this Agreement is confidential, solely for the use of performing this Agreement and may not be disclosed or copied unless authorized in advance by Seller in writing. Upon Seller's request, Buyer shall promptly return all documents and other materials received from Seller. Seller shall be entitled to injunctive relief for any violation of this Section. This Section does not apply to information that is: (a) in the public domain; (b) known to Buyer at the time of disclosure; or (c) rightfully obtained by Buyer on a non-confidential basis from a third party.

20. **Force Majeure**. Seller shall not be liable or responsible to Buyer, nor be deemed to have defaulted or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement when and to the extent such failure or delay is caused by or results from acts or circumstances beyond the reasonable control of Seller including, without limitation, acts of God, flood, fire, earthquake, explosion, governmental actions, war, invasion or hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest, national emergency, revolution, insurrection, epidemic, lockouts, strikes or other labor disputes (whether or not relating to either party's workforce), or restraints or delays affecting carriers or inability or delay in obtaining supplies of adequate or suitable materials, materials or telecommunication breakdown or power outage.

21. **Assignment**. Buyer shall not assign any of its rights or delegate any of its obligations under this Agreement without the prior written consent of Seller. Any purported assignment or delegation in violation of this Section is null and void. No assignment or delegation relieves Buyer of any of its obligations under this Agreement.

22. **Relationship of the Parties**. The relationship between the parties is that of independent contractors. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise, employment or fiduciary relationship between the parties, and neither party shall have authority to contract for or bind the other party in any manner whatsoever.

23. **No Third-Party Beneficiaries**. This Agreement is for the sole benefit of the parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of these Terms.

24. **Governing Law**. All matters arising out of or relating to this Agreement are governed by and construed in accordance with the internal laws of the State of Texas, USA without giving effect to any choice or conflict of law provision or rule (whether of the State of Texas or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than those of the State of Texas. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to the transactions contemplated by these Terms and Conditions.

25. **Submission to Jurisdiction**. Any legal suit, action or proceeding arising out of or relating to this Agreement shall be instituted in the federal courts of the United States of America or the courts of the State of Texas each case located in the City of Dallas, and each party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action or proceeding.

26. **Notices**. All notices, requests, consents, claims, demands, waivers and other communications hereunder (each, a "**Notice**") shall be in writing and addressed to the parties at the addresses set forth on the face of the Sales Confirmation or to such other address that may be designated by the receiving party in writing. All Notices shall be delivered by personal delivery, nationally recognized overnight courier (with all fees pre-paid), facsimile (with confirmation of transmission) or certified or registered mail (in each case, return receipt requested, postage prepaid). Except as otherwise provided in this Agreement, a Notice is effective only (a) upon receipt of the receiving party, and (b) if the party giving the Notice has complied with the requirements of this Section.

27. **Severability**. If any term or provision of this Agreement is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

28. **Survival**. Provisions of these Terms which by their nature should apply beyond their terms will remain in force after any termination or expiration of this Order including, but not limited to, the following provisions: Insurance, Compliance with Laws, Confidential Information, Governing Law, Submission to Jurisdiction and Survival.

29. **Amendment and Modification**. These Terms may only be amended or modified in a writing stating specifically that it amends these Terms and is signed by an authorized representative of each party.

GE Gas Power

Michael Welsch
Account Manager

5 Necco Street
Boston, MA 02210

C: 339-221-1028
E: Michael.Welsch@ge.com

September 1, 2022

Mr. Dan Rotunno
Plant Manager
Lockport Energy Associates

Subject: 6B NOx Abatement Budgetary Estimates

Dear Dan,

Per our recent conversation, find here our summary of budgetary estimates for NOx abatement options for your 6B gas turbines at North Tonawanda and Lockport.

Item No.	Item Description	NOx ppm (NG)	NOx ppm (LF)	Cycle Time (wks)	Budgetary Price (USD)
1	DLN1+ Ultra Low NOx (ULN) – Dual Fuel	≤ 9	42	52	$8,500,000.00
2	DLN1+ Ultra Low NOx (ULN) – Gas Only	≤ 9	NA	52	$6,600,000.00
3	DLN1+ Low NOx (LN) – Dual Fuel	15	42	52	$7,500,000.00
4	DLN1+ Low NOx (LN) – Gas Only	15	NA	52	$5,600,000.00
5	Steam Injection System Upgrade	25	42	52	$1,750,000.00

Notes:

1. This budgetary estimate is not a quotation nor offer for the sale of parts and/or services described herein. The information contained herein is subject to change and/or revision without prior notice. For a formal proposal, please contact your GE Sales Representative, and reference this budgetary estimate
2. The budgetary price for all items above includes installation services
3. Items 1-4 require a Mark VIe upgrade which is included in the budgetary prices above
4. All NOx levels are estimates only

If you have any further questions at this time, please do not hesitate to call. Thank you for the opportunity to be of continued service to Fortistar.

Sincerely,
Mike Welsch
Account Manager

ATTACHMENT C –
PRODUCTION COST INFORMATION

Attachment C

2021 Production Cost Information

Fortistar North Tonawanda Inc. - North Tonawanda, NY

Month	Natural Gas Price ($/Dth)	NYISO Power Cost ($/MWh)
January 2021	$3.67	$32.99
February 2021	$5.05	$45.45
March 2021	$3.53	$31.78
April 2021	$3.42	$30.74
May 2021	$3.54	$31.87
June 2021	$3.71	$33.35
July 2021	$4.33	$39.01
August 2021	$4.88	$43.93
September 2021	$5.50	$49.54
October 2021	$6.24	$56.18
November 2021	$5.97	$53.71
December 2021	$4.63	$41.68
Annual Average	**$4.54**	**$40.85**

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 9
700 Delaware Avenue, Buffalo, NY 14209
P: (716) 851-7165 | F: (716) 851-7168
www.dec.ny.gov

SENT VIA EMAIL

June 12, 2023

Daniel Rotunno, Plant Manager
Fortistar North Tonawanda LLC
1070 Erie Avenue
North Tonawanda, New York 14120

Second Notice of Incomplete Application
Air Title V Permit Renewal
Permit No. 9-2912-00059/00013

Dear Daniel Rotunno:

The New York State Department of Environmental Conservation (NYSDEC) has reviewed Fortistar North Tonawanda, LLC's (Fortistar, facility) September 15, 2022, response to NYSDEC's July 13, 2022 Notice of Incomplete Application (NOIA). The reply is not adequate, therefore, the application is still considered incomplete. Please address the following comments on Fortistar's September 15, 2022 response to the NOIA:

1. Items 1 and 2: On September 15, 2022, the Public Service Commission (PSC) issued a Declaratory Ruling which stated no further review of a proposed transaction between Fortistar and Digihost was required under the Public Service Law. DEC has not received formal notice of the transaction or an application for permit transfer, as discussed with you in February and as promised in your September letter. Please confirm whether Fortistar is still the legally responsible party for permit purposes and provide either the formal notice or a completed application for permit transfer.

2. Item 3, page 3-1: The third paragraph mentions that the Climate Leadership and Community Protection Act (CLCPA, Climate Act) analysis includes both upstream and downstream emissions. Because the facility is not transmitting natural gas from the facility, there are no downstream emissions. Please correct the emission calculations.

3. The September 2022 CLCPA Conformity Review was written before the PSC's ruling and before the Fortistar North Tonawanda plant was purchased by Digihost on February 7th, 2023. Now that the purchase has occurred, please describe how facility operations will conform with the CLCPA. How often will facility operations generate electricity for the grid, and how often will it generate

electricity for Digihost behind the meter? Also, describe the expected level of facility operations versus the historic actual levels.

4. The mitigation discussion appears to be inconsistent with emissions projections. Specifically, the text on page 3-5 projects compliance "with the CLCPA's requirement for zero-GHG emissions from the electricity generation sector" and show zero emissions in 2040 and 2050 in Table 3-4. However, page 4-3 indicates that some combination of the mitigation methods described in Section 4, such as alternate fuels and carbon offsets, would be needed to continue power generation at the facility after 2040. Will the facility shut down or will it seek some means to continue operating by 2040 and after?

5. Fortistar's Section 7(3) CLCPA conformity review needs to further describe how it will minimize emissions and impacts to the community in the future. A map showing the closest Disadvantaged Community and the closest Potential Environmental Justice Area is enclosed with this letter.

Please submit an updated CLCPA conformity review addressing our comments within 60 days. If you have any questions, please feel free to contact Michelle Woznick of my staff or me at 716/851-7165. Questions related to the air permit can be directed to Michael Emery or Cheryl Webster at 716-851-7130.

Respectfully,

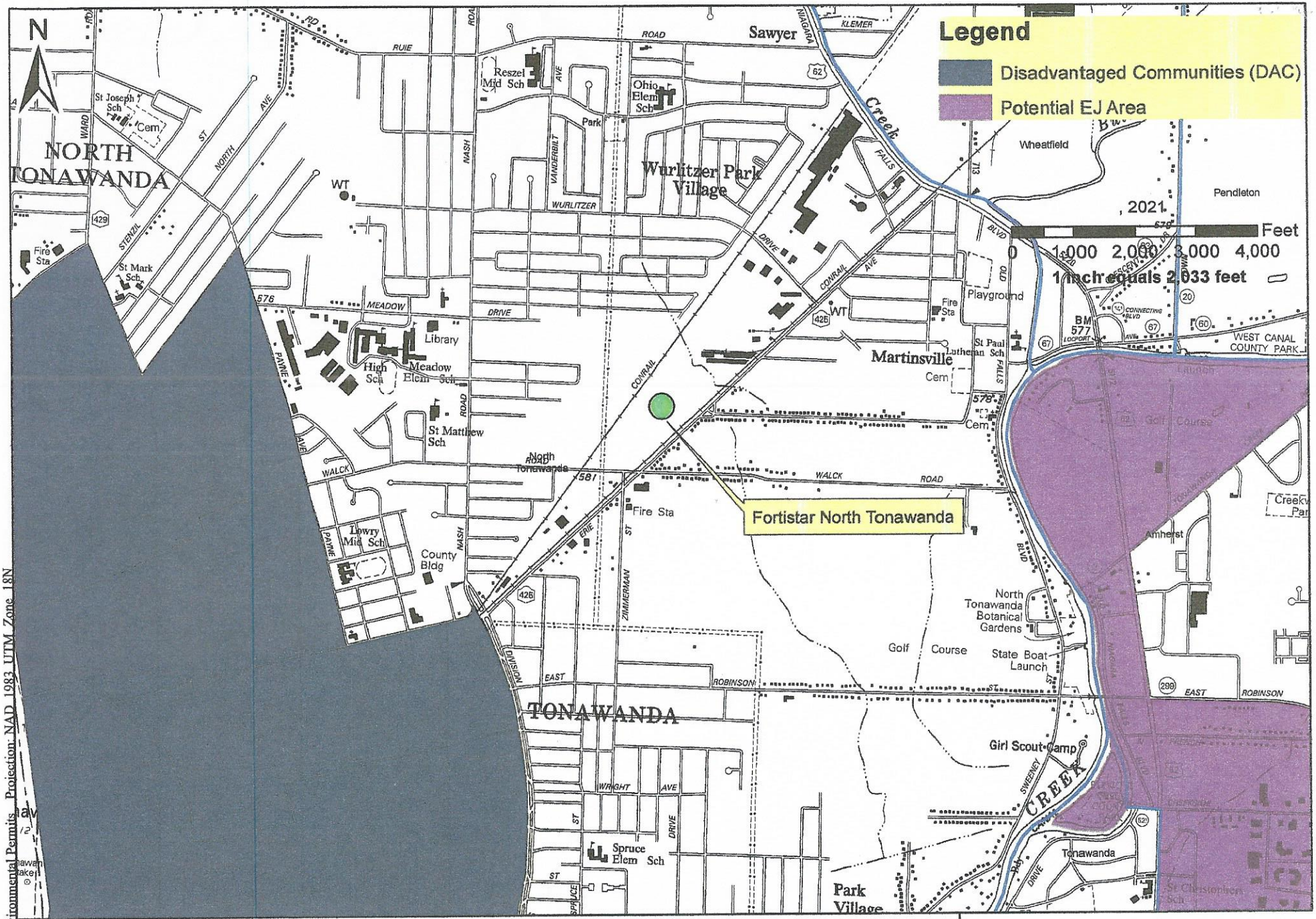
David S. Denk

David S. Denk
Regional Permit Administrator

DSD/ME

Enclosure: DAC/PEJA Map

ecc: Maureen Brady, NYSDEC Region 9, Office of General Counsel
Michael Emery, NYSDEC Region 9, Regional Engineer
Cheryl Webster, NYSDEC Region 9, Regional Air Pollution Control Engineer
Geoffrey Knall, NYSDEC Region 9, Division of Air Resources
Connie LaPort, NYSDEC Region 9, Division of Air Resources
Michelle Woznick, NYSDEC Region 9, Division of Environmental Permits



Division of Environmental Permits, Projection: NAD 1983 UTM Zone 18N

NEW YORK STATE OF OPPORTUNITY

Department of Environmental Conservation

Disclaimer: This map was prepared by Region 9 NYSDEC Division of Environmental Permits using the most current data available. It is deemed accurate but is not guaranteed. NYSDEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data. This map may contain information that is considered sensitive and therefore the distribution of this map is strictly prohibited. Additional resources may be present but not depicted on this map.

WORLD GENERATION X, LLC
(Formerly North Tonawanda LLC)
1070 Erie Avenue
North Tonawanda, New York 14120

Mr. David S. Denk
Regional Permit Administrator
Division of Air Resources
New York State Department of Environmental Conservation
700 Delaware Avenue
Buffalo, New York 14209

August 25, 2023

RE: Fortistar North Tonawanda Cogeneration Facility NYDEC ID# 92912000059 Title V Air Permit, Second Notice of Incomplete Application Dated June 12, 2023.

Dear Mr. Denk,
This letter is in response to your June 12, 2023 letter informing Fortistar North Tonawanda LLC (FNT) (now known as World Generation X, LLC (WGX)) of the Second Notice of Incomplete Application for the Title V permit renewal. The following items are listed in order of your request for additional information per your letter.

Item 1: (Previous Items 1 and 2): Notice of Transaction and/or Permit Transfer request needed.

Response:
Please see attachment 1 for notification letter.

Item 2: (Previous Item 3): Upstream and Downstream emissions submitted incorrectly.

Response:
It was incorrectly stated that Downstream emissions from natural gas combustion at the facility were included in the data analysis submitted. The emissions analysis prepared only included upstream emissions from natural gas combustion, consistent with the CLCPA definitions.

Item 3: Please describe how the facility operations will conform with the CLCPA. Include how often the facility will generate electricity for the grid, and how often it will generate electricity for Digihost behind the meter. Also describe the expected level of facility operations versus the historic actual levels.

Response:
Since the last update provided to the agency, the sale of the membership interest of FNT to Digihost International, Inc. by North Tonawanda Holdings LLC was completed. WGX's primary industry will remain electric power generation (NAICS Code: 22111), available for dispatch for community grid support by the balancing authority (NYISO) every day. Dispatch of the facility depends upon many factors including but not limited to fuel prices and availability of other power plant resources. On days when the plant is not selected to operate by NYISO, the plant may self-operate to support behind the meter operations pending appropriate approvals.

Item 4: The mitigation appears to be inconsistent with emission projections. Specifically, the text on page 3-5 projects compliance with "the CLCPA's requirement for zero-GHG emissions from the electronic generation sector" and show zero emissions in 2040 and 2050 in Table 3-4. However, Page 4-3 indicates that combination of mitigation methods described in Section 4, such as alternate fuels and carbon offsets, would be needed to continue power generation at the facility after 2040. Will the facility shut down or will it seek some means to continue to operate by 2040 and after?

Response:
Table 3-4 has been corrected to show the estimated emissions. At this time there is no available technology to eliminate GHG emissions from the facility. WGX will continue to review all available technology to comply within the CLCPA timelines and emissions requirements.

Table 3-4
Projected Facility-Wide GHG Emissions 2030, 2040 and 2050

Projected Annual CO2eq Emission (tpy) per Emission Unit					Facility
Year	U-00001	U-00002	U-00003	U-00004	Total (tpy)
2030	312,582.52	279.31	55.12	0	312,916.95
2040	0	0	0	0	0
2050	0	0	0	0	0

Item 5: Fortistar's section 7(3) CLCPA conformity review needs to further describe how it will minimize emissions and impacts to the community in the future.

Response:
In addition to mitigation efforts discussed in Response 4, above, WGX will maintain and operate the facility with the goal of minimizing GHG emissions and possible impacts to the community.

If you have any questions or concerns, please contact me at the office (716) 694-9874 or cell (716) 570-6365.

Sincerely,

Daniel Rotunno
Plant Manager
World Generation X, LLC

c: File NT.2.3.1.2.6.1

Attachment 1
Notice of Transaction

As of February 7, 2023, North Tonawanda Holdings LLC transferred 100% of the member interests in Fortistar North Tonawanda LLC (n/k/a World Generation X, LLC) to Digihost International, Inc.
See attached.

ASSIGNMENT OF INTERESTS

FOR VALUE RECEIVED, North Tonawanda Holdings LLC, a Delaware limited liability company (the "Assignor"), hereby irrevocably sells, conveys, transfers, assigns and delivers 100% of the membership interests and any other equity interests(the "Assigned Interests") in Fortistar North Tonawanda LLC, a Delaware limited liability company (the "Company"), together with all right, title and interest in and to the Assigned Interests, to Digihost International, Inc., a Delaware corporation (the "Assignee"). This Assignment of Interests (this "Assignment") is effective as of February 7, 2023.

This Assignment is subject to the terms and conditions of that certain Membership Interest Purchase Agreement, dated as of March 17, 2021, as amended, by and between the Assignee and the Assignor (the "Purchase Agreement"), the terms of which are incorporated herein by reference and constitute an integral part of this Assignment.

To the extent any term, condition, or provision of this Assignment is in any way inconsistent with or in conflict with any term, condition, or provision of the Purchase Agreement, the Purchase Agreement shall govern and control. Except as expressly provided in the Purchase Agreement, Assignor makes no representation or warranty, express or implied, regarding the Assigned Interests or the Company.

This Assignment shall be construed and interpreted in accordance with the Laws of the State of Delaware without reference to its choice of law provisions.

NORTH TONAWANDA HOLDINGS LLC,
its sole Member

By: _____
Name: Scott Contino
Title: Chief Financial Officer

ACCEPTED AND AGREED:

By: DIGIHOST INTERNATIONAL, INC.

DocuSigned by:
By: _____
Name: Michel Amar
Title: ceo

[Signature page to Assignment Agreement]

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 9
700 Delaware Avenue, Buffalo, NY 14209
P: (716) 851-7165 | F: (716) 851-7168
www.dec.ny.gov

SENT VIA E-MAIL

July 26, 2024

Daniel Rotunno, Plant Manager
Fortistar North Tonawanda LLC
1070 Erie Avenue
North Tonawanda, New York 14120

Dear Daniel Rotunno:

Request for Additional Information
Air Title V Renewal
Permit No. 9-2912-00059/00013

The New York State Department of Environmental Conservation (NYSDEC or DEC) has reviewed the Fortistar North Tonawanda, LLC (Fortistar, facility) response, dated August 25, 2023, but received on September 8, 2023, to NYSDEC's June 12, 2023 Second Notice of Incomplete Application (NOIA). The reply is not adequate, and, therefore, the application is still considered incomplete. Please address the following items:

1. Compliance with the 1-hour NO2 National Ambient Air Quality Standard must be demonstrated via air dispersion modeling. Please submit an AERMOD dispersion modeling protocol to NYSDEC at DAR.meteorology@dec.ny.gov and RAPCE.R9@dec.ny.gov by **August 16, 2024**. Modeling results must be submitted within three weeks of NYSDEC's approval of the protocol.

2. Please submit a completed Methods Used to Determine Compliance form which is required for applications for Title V permits according to the air permit application instructions. This form can be found on NYSDEC's website at https://www.dec.ny.gov/docs/air_pdf/complmethform.pdf.

3. Please revise the Climate Leadership and Community Protection Act (CLCPA) analysis, submitted on September 15, 2022, to incorporate the answers in your reply dated August 25, 2023. Additionally, due to the change in ownership since the CLCPA analysis was submitted, please revise the section related to anticipated operation of the facility based on the goals of the current owner. This discussion shall include an expanded response to Item 3 in NYSDEC's Second NOIA, dated June 12, 2023, regarding how often the facility will generate electricity for the grid, how often it will generate electricity for behind the meter usage, and the expected level of facility operations versus historic actual levels.

4. Please identify, on a quarterly basis beginning in January 2021, how many days the facility has operated, how many days the facility was called upon by the NYISO to operate, how many days it operated for behind the meter uses, and for each usage, include the MW generated and its usage, hours of operations, and emissions. Please revise upstream emissions based on updated emission factors found in the Appendix: Emission Factors for Use by State Agencies and Applicants of the most recent Statewide Greenhouse Gas Emissions Report. Please indicate the current generating capacity and utilization rate of the facility and the planned future capacity and utilization rate of the facility in the revised CLCPA analysis. In addition, please discuss the portion of the facility's output that will be used for each mode of operation (e.g., electricity generation to the grid vs. on site consumption for blockchain operations) now and in the future.

5. The response to Item 5 from NYSDEC's Second NOIA, dated June 12, 2023 and regarding CLCPA Section 7(3), needs to be expanded and go into detail as to how the facility plans to minimize emissions and impacts to the community in the future and should provide reasonably specific examples. Additionally, since this project potentially impacts a disadvantaged community, please provide a Disproportionate Burden Analysis following the procedures described in NYSDEC Program Policy DEP 24-1, Permitting and Disadvantaged Communities under the CLCPA. As noted in that policy, the analysis requires calculation of the GHG and co-pollutant emissions from the project and evaluation of their impacts on the disadvantaged community, including information on existing burdens/criteria used to identify the disadvantaged community. The analysis must also discuss any alternatives or design considerations that will be used to reduce the impact of those emissions on the disadvantaged community. Any available relevant material and scientifically reliable resources can be utilized to aid in the development of a disproportionate burden analysis. Some available resources include the criteria report for the DAC, "Technical Documentation on Disadvantaged Community Criteria" and the "Disadvantaged Communities Criteria Fact Sheet." These resources are available at the following website: https://climate.ny.gov/Resources/Disadvantaged-Communities-Criteria.

6. An enhanced public participation plan (PPP) must be prepared for the project. As noted in DEP 24-1, the development of the PPP should follow the procedural guidance in Section V.D of the Commissioner's Policy on Environmental Justice and Permitting (CP-29). A PPP template has been included for your reference. Before preparing and submitting the information identified above, please contact the Division of Environmental Permits to arrange a meeting to discuss the applicability of CLCPA and the preparation of the analysis.

Please submit the modeling protocol, Methods Used to Determine Compliance form, and updated CLCPA analysis by **August 16, 2024**. If you have any questions regarding CLCPA Section 7(3) or DEP 24-1, please feel free to contact Lisa Czechowicz at 716-851-7165. Questions related to the air permit can be directed to Steve Yarrington at 518-402-8403.

Respectfully,

Lisa M. Czechowicz

Lisa M. Czechowicz
Regional Permit Administrator

Enclosure: PPP Template

Ecc: Maureen Brady, NYSDEC Region 9, Office of General Counsel
Michael Emery, NYSDEC Region 9, Regional Engineer
Cheryl Webster, NYSDEC Region 9, Regional Air Pollution Control Engineer
Geoffrey Knall, NYSDEC Region 9, Division of Air Resources
Michelle Woznick, NYSDEC Region 9, Division of Environmental Permits
Michael Cronin, NYSDEC Albany, Division of Air Resources
Steve Yarrington, NYSDEC Albany, Division of Air Resources

Phillips Lytle LLP

Via E-Mail and U.S. Mail

September 4, 2024

Lisa Czechowicz, Regional Permit Administrator
New York State Department of Environmental Conservation
Division of Environmental Permits, Region 9
700 Delaware Avenue
Buffalo, NY 14209

Re: Request for Additional Information Follow Up
Air Title V Renewal Permit No. 9-2912-00059/00013

Dear Ms. Czechowicz:

We represent the Permittee with regard to the above-referenced matter. By your letter dated August 27, 2024, the Permittee received a request for additional information dated July 26, 2024; the Permittee never received the original July 26, 2024 letter.

Per your August 27, 2024 letter, Permittee's response is due on or before September 10, 2024. Given the extensive nature of the requested information, the Permittee requests additional time in which to provide its responses. On behalf of the Permittee we request an extension to and including October 2, 2024.

Please feel free to contact the undersigned if you have any questions of concerns. We appreciate the Department's courtesy in this matter.

Very Truly yours

Phillips Lytle LLP

By

David P. Flynn
Doc #12136621.1
lef
cc: Terri Mucha, Esq. (Via Email)
Dan Rotunno, VP Operations (Via Email)

ATTORNEYS AT LAW

DAVID P. FLYNN, PARTNER DIRECT 716 847 5473 DFLYNN@PHILLIPSLYTLE.COM

ONE CANALSIDE 125 MAIN STREET BUFFALO, NY 14203-2887 PHONE 716 847 8400 FAX 716 852 6100

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 9
700 Delaware Avenue, Buffalo, NY 14209
P: (716) 851-7165 | F: (716) 851-7168
www.dec.ny.gov

VIA E-MAIL AND CERTIFIED MAIL RETURN RECEIPT REQUESTED

September 11, 2024

David P. Flynn, Esq.
One Canalside
125 Main Street
Buffalo, NY 14203-7887

Dear David P. Flynn:

Request for Additional Information Follow Up #2
Air Title V Renewal
Permit No. 9-2912-00059/00013

This letter is to follow up on the phone conversations between Mr. Daniel Rotunno of WGX (fka Fortistar North Tonawanda) and New York State Department of Environmental Conservation (DEC) Regional Engineer Michael Emery on September 10, 2024 discussing the September 4, 2024 request from Phillips Lytle for more time to respond to the July 26, 2024 Request for Additional Information (RFAI). The July 26, 2024 RFAI response had been extended to September 10, 2024 because you advised that you did not receive the initial letter.

As Mr. Rotunno and Mr. Emery agreed to, a response to Items 2 and 4 in the July 26, 2024 RFAI are now due September 13, 2024. A response to the rest of the six (6) items in the July 26, 2024 RFAI are due September 30, 2024. No additional time will be granted to submit the requested information.

Mr. Rotunno and Mr. Emery discussed what emissions were requested in Item 4 of the July 26, 2024 RFAI. They agreed that carbon monoxide (CO), oxides of nitrogen (NOx), particulate matter less than 10 microns (PM_{10}), and greenhouse gas (GHG) emissions will be provided.

Please contact me at 716-851-7165 if you have any questions regarding this letter.

Respectfully,

Lisa M. Czechowicz

Lisa M. Czechowicz
Regional Permit Administrator

Ecc: Terri Mucha, Esq. NYSDEC Region 9, Office of General Counsel
Michael Emery, P.E., NYSDEC Region 9, Regional Engineer
Cheryl Webster, P.E., NYSDEC Region 9, RAPCE
Geoffrey Knall, NYSDEC Region 9, Division of Air Resources
Michelle Woznick, NYSDEC Region 9, Division of Environmental Permits
Daniel Rotunno, Plant Manager Fortistar North Tonawanda LLC

Lisa Czechowicz, Regional Permit Administrator
New York State Department of Environmental Conservation
Division of Environmental Permits, Region 9
700 Delaware Avenue
Buffalo, NY 14209

September 12, 2024

Re: Request for Additional Information Follow Up ("RFAI")
Air Title V Renewal
Permit No. 9-2912-00059/00013

Dear Ms. Czechowicz:

Per your letter dated September 11, 2024, enclosed please find the partial response of WGX to the above-referenced RFAI. Please note that the attachments to this letter are draft and subject to further review and/or modification by WGX. Please note further that WGX does not waive any of its rights with regard to the RFAI by submittal of any responses thereto.

Background

As explained in our letter to you dated September 4, 2024 WGX never received the initial RFAI purportedly sent to WGX via email and dated July 26, 2024. Per your subsequent August 27, 2024 letter, WGX, for the first time, had an opportunity to review the RFAI. We note that your August 27th letter was received only several days before the Labor Day holiday weekend, and required a complete response from WGX by September 10, 2024. On behalf of WGX, by letter dated September 4, 2024 we requested an extension of time in which to provide all RFIA responses to and including October 2, 2024. By your letter dated September 11, 2024, you advised that the requested extension was not acceptable, and required WGX to respond to items 2 and 4 in the RFAI by September 13, 2024 with the remainder of the responses due September 30, 2024.

We note that the application to renew the Title V Air Permit for this facility("Application") has been pending with the Department since April 2021. The

Department, on two occasions, has requested additional information in regards to the Application, and those responses were timely provided by WGX. It is unclear to WGX why, with the Application pending for over three years (the delay in processing of which is wholly attributable to the Department), the Department arbitrarily requires WGX to provide voluminous information related to items No. 2 and No. 4 to the Department in an extraordinarily short period of time.

Response

Attached as Exhibit A is WGX's draft response to item No. 2.

With regard to item No. 4, attached as Exhibit B is the draft operational information requested. It is inappropriate, in the context of the Department's review of the pending Application, to require the breakdown facility operations based on the end-user of the energy produced. The Department has, without explanation, arbitrarily requested that WGX break down the permitted facility's operations by the related megawatts generated, hours of operation and emissions based upon the consumer of the energy. Note this request focuses not only on historic operations from January 2021 to present, but requests such a breakdown "now and in the future."

We are aware of no authority whereby the identity or nature consumer of the electricity produced is relevant to the Department's determination regarding renewal of a Title V air permit. WGX is subject to requirements/requests from the New York ISO to operate, and it is impossible for WGX to determine (or even guess) when and how often it will be required to do so in the future. Similarly, with regard to behind the meter uses of produced electricity, such a decision is driven by the cost of energy, and the facility will provide behind the meter energy if and when it makes economic sense to do so.

WGX will work to provide responses to the remaining items in the July 26, 2024 letter within the time frame requested. As noted above, given the extremely short timeframe in which WGX has had to respond to items No. 2 and No. 4, those responses remain subject to revision.

If you have any questions please feel free to contact Dan Rotunno or myself.

Very truly yours,

Phillips Lytle LLP

By

David P. Flynn

WAlef

World Generation X, LLC (Formally Fortistar North Tonawanda LLC) presents the data herein for items #2 & #4 for the RFAI in the following exhibits.

Item 2 - Exhibit A is the completed Methods Used to Determine Compliance form as per instructions for the air application.

Item 4 – Presented in Exhibit B are draft Quarterly plant operating data beginning in January 2021 through second quarter 2024. The data displays quarterly operating hours for utility and behind the meter operations, MW generation for each and emissions. Additional tables are displayed for upstream emissions based on updated emission factors.

Additional questions by the department for item 4;

- What is the current generating capacity and utilization rate of the facility and the planned future capacity and utilization rate of the facility in the revised CLCPA analysis. In addition, please discuss the portion of the facility's output that will be used for each mode of operation (e.g., electricity generation to the grid vs. on site consumption for blockchain operations) now and in the future.

The Facility capacity is nominally rated for 55mw and varies according to temperature. The entire facility output is utilized during plant operations now and in the future and will operate within the allowed permit conditions. The WGX facility first and foremost supports the grid and typically bids into the ISO market on a daily basis. If the facility is not dispatched by the ISO based upon its bid or the ISO does not otherwise dispatch the facility, it can operate (if the economics support it) to provide energy to behind the meter operations.

Exhibit A

Item 2

Methods Used to Determine Compliance

DEC ID
9-2912-00059

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
FACILITY	6 NYCRR 200.6	Item 1.1: Acceptable Ambient Air Quality Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, The facility does not allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.	2023
FACILITY	6 NYCRR 200.7	Item 10.1: Maintenance of Equipment The facility keeps equipment in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively	2023
FACILITY	6 NYCRR 201-1.7	Item 11.1: Recycling & Salvage Where practical, the facility recycles or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.	2023
FACILITY	6 NYCRR 201-1.8	Item 12.1: Prohibition of Reintroduction of Collected Contaminants to the Air The facility does not unnecessarily remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.	2023
FACILITY	6 NYCRR 201-3.2 (a)	Item 13.1: Exempt sources- Proof of Eligibility The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The facility maintains all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and makes them available to representatives of the department upon request.	2023
FACILITY	6 NYCRR 201-3.3 (a)	Trivial Sources - Proof of Eligibility The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this Subpart. The facility maintains all required records on-site for a period of five years and makes them available to representatives of the department upon request.	2023
FACILITY	6 NYCRR Subpart 201-6	Item 21.1/22.2: Emission Unit Definition The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00001 Emission Unit Description: Consists of emission sources ES00001 (55 MW combined cycle gas turbine and heat recovery steam generator), ES00002 (10.5 MMBtu/hr heat input auxiliary boiler), ES00007 and ES00008 (duct burners each at 18.82 MMBtu/hr) emitting to the same emission point 00001. Units are located on the first floor of the Powerhouse building. Building(s): Powerhouse - Item 21.2: The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00002 Emission Unit Description: Emission source ES00003 is a 10.5 MMBtu/hr diesel emergency generator (primary). Unit is located on the first floor of the Powerhouse building. Building(s): Powerhouse - Item 21.3: The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00003 Emission Unit Description: Emission source ES00004 is a 4.3 MMBtu/hr diesel starting motor (secondary). Unit is located on first floor of Powerhouse building. Building(s): Powerhouse - Item 21.4: The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00004 Emission Unit Description: Emission source ES00006 is a 49.5 MMBtu/hr Cleaver Brooks boiler (steam unit). This unit will only operate when the combustion turbine is not in operation. The boiler is fitted with low NOx burners and integrated combustion technology.	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
FACILITY	6 NYCRR Subpart 201-6	Item 36.1: Emission Point Definition By Emission Unit The following emission points are included in this permit for the cited Emission Unit: Emission Unit: U-00001 Emission Point: 00001 Height (ft.): 165; Diameter (in.): 126; NYTMN (km.): 4773.436; NYTME (km.): 186.082 Building: Powerhouse Item 36.2: The following emission points are included in this permit for the cited Emission Unit: Emission Unit: U-00002 Emission Point: 00002 Height (ft.): 68; Diameter (in.): 17; NYTMN (km.): 4773.41; NYTME (km.): 186.061 Building: Powerhouse Item 36.3: The following emission points are included in this permit for the cited Emission Unit: Emission Unit: U-00003 Emission Point: 00003 Height (ft.): 71; Diameter (in.): 14; NYTMN (km.): 4773.384; NYTME (km.): 186.079 Building: Powerhouse Item 36.4: The following emission points are included in this permit for the cited Emission Unit: Emission Unit: U-00004 Emission Point: 00004 Height (ft.): 74; Diameter (in.): 42; NYTMN (km.): 4773.381; NYTME (km.): 186.13 Building: Powerhouse	2023
FACILITY	6 NYCRR Subpart 201-6	Item 37.1: Process Definition By Emission Unit This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00001 Process: P10 Source Classification Code: 1-01-006-02 Process Description: Natural gas combustion in duct burners #1 and #2. Emission Source/Control: 00007 - Combustion Design Capacity: 18.82 million Btu per hour Emission Source/Control: 00008 - Combustion Design Capacity: 18.82 million Btu per hour Item 37.2: This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00001 Process: P11 Source Classification Code: 2-01-001-01 Process Description: Distillate oil combustion in combustion turbine. Emission Source/Control: 00001 - Combustion Design Capacity: 55 megawatt Item 37.3: This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00001 Process: PO1 Source Classification Code: 2-01-002-01 Process Description: Natural gas combustion in combustion turbine. Emission Source/Control: 00001 - Combustion Design Capacity: 55 megawatt	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
FACILITY	6 NYCRR Subpart 201-6 (continued)	Item 37.4: This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00001 Process: PO3 Source Classification Code: 1-01-006-02 Process Description: Natural gas combustion in auxiliary boiler. Emission Source/Control: 00002 - Combustion Design Capacity: 10.5 million Btu per hour Item 37.5: This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00001 Process: PO4 Source Classification Code: 1-01-005-01 Process Description: Distillate oil combustion in auxiliary boiler. Emission Source/Control: 00002 - Combustion Design Capacity: 10.5 million Btu per hour Item 37.6: This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00002 Process: PO7 Source Classification Code: 2-01-001-02 Process Description: Distillate oil combustion in diesel emergency generator (primary). Emission Source/Control: 00003 - Combustion Design Capacity: 10.5 million Btu per hour	2023
FACILITY	6 NYCRR Subpart 201-6 (continued)	Item 37.7: Emission Source/Control: 00003 - Combustion Design Capacity: 10.5 million Btu per hour Item 37.7: This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00003 Process: PO8 Source Classification Code: 2-01-001-02 Process Description: Distillate oil combustion in starting diesel engine (secondary). Emission Source/Control: 00004 - Combustion Design Capacity: 4.3 million Btu per hour Item 37.8: This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: U-00004 Process: P09 Source Classification Code: 1-01-006-02 Process Description: Natural gas combustion in steam boiler. Emission Source/Control: 00006 - Combustion Design Capacity: 49.5 million Btu per hour	2023
U-00001, 00001	6 NYCRR Subpart 201-6	Total annual distillate oil usage in the combustion turbine shall not exceed 1,440 hours per year. The facility complies with this requirement through work practice involving specific operations.	2023
U-00001, 00001	6 NYCRR Subpart 201-6	Total annual distillate oil usage in the combustion turbine shall not exceed 5.9 million gallons. The facility complies with this requirement through work practice involving specific conditions.	2023
U-00001, 00001, PO4, 00002	6 NYCRR Subpart 201-6	Total annual distillate oil usage in the auxiliary boiler shall not exceed 685,000 gallons. The facility complies with this requirement through work practice involving specific conditions.	2023
U-00002, 00002, PO7, 00003	6 NYCRR Subpart 201-6	Total annual distillate oil usage for the diesel emergency generator (primary) shall not exceed 66,600 gallons. The facility complies with this requirement through work practice involving specific operations.	2023
U-00002, 00002, PO7, 00003	6 NYCRR Subpart 201-6	The diesel emergency generator (primary) shall not exceed 415 hours per year of operation. The facility complies with this requirement through work practice involving specific operations.	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
U-00003, 00003, PO8, 00004	6 NYCRR Subpart 201-6	Operation of the starting motor is limited to 200 hours per year. The facility complies with this requirement through work practice involving specific operations.	2023
U-00003, 00003, PO8, 00004	6 NYCRR Subpart 201-6	Total annual distillate oil usage in the starting motor shall not exceed 8,610 gallons. The facility complies with this requirement through work practice involving specific operations.	2023
U-00001, PO3, 00002	6 NYCRR Subpart 201-6	The facility conducts stack testing once every five years in order to determine compliance with the VOC emission limit of 0.012 lb/MMBtu (0.126 lb/hr) for the auxiliary boiler firing natural gas. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, PO3, 00002	6 NYCRR Subpart 201-6	The facility conducts stack testing once every five years in order to determine compliance with the PM, PM-10 emission limit of 0.011 lb/MMBtu (0.11 lb/hr) for the auxiliary boiler firing natural gas. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, PO3, 00002	6 NYCRR Subpart 201-6	The facility conducts stack testing once every five years in order to determine compliance with the NOx emission limit of 0.12 lb/MMBtu (1.26 lb/hr) for the auxiliary boiler firing natural gas. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, PO3, 00002	6 NYCRR Subpart 201-6	The facility conducts stack testing once every five years in order to determine compliance with the CO emission limit of 0.151 lb/MMBtu (1.58 lb/hr) for the auxiliary boiler firing natural gas. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, 00001, PO4, 00002	6 NYCRR Subpart 201-6	The facility conducts stack testing once every five years in order to determine compliance with the VOC emission limit of 0.02 lb/MMBtu (0.21 lb/hr) for the auxiliary boiler firing distillate oil. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, 00001, PO4, 00002	6 NYCRR Subpart 201-6	The facility conducts stack testing once every five years in order to determine compliance with the PM, PM-10 emission limit of 0.021 lb/MMBtu (0.22 lb/hr) for the auxiliary boiler firing distillate oil. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, 00001, PO4, 00002	6 NYCRR Subpart 201-6	The facility conducts stack testing once every five years in order to determine compliance with the NOx emission limit of 0.187 lb/MMBtu (1.96 lb/hr) for the auxiliary boiler firing distillate oil. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, 00001, PO4,	6 NYCRR Subpart 201-6	The facility conducts tack testing once every five years in order to determine compliance with the CO emission limit of 0.071 lb/MMBtu (0.74 lb/hr) for the auxiliary boiler firing distillate oil. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, 00001, P11	6 NYCRR Subpart 201-6	Item 55.1/55.2: The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart. Monitoring Description: The owner/operator shall install, calibrate, maintain, and operate a CEM to measure emissions of NOx from the combustion turbine firing alone in process P11 (distillate oil combustion) or in combination with the auxiliary boiler in processes PO3 (natural gas combustion) or PO4 (distillate oil combustion), and together with or without the operation of the duct burners in process P10 (natural gas combustion). The CEM records are maintained on site for a minimum of five years. The emission limit of 44 ppmvd corrected to 15 percent oxygen was evaluated in a NOx RACT analysis performed as required under 6 NYCRR 227-2.4(e)(3). DEC approved the continuation of the existing presumptive RACT emission limit without requiring additional control technologies.	2023
U-00001, 00001, PO1	6 NYCRR Subpart 201-6	Item 62.1/62.2: The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart. Monitoring Description: The owner/operator shall install, calibrate, maintain, and operate a CEM to measure emissions of NOx from the combustion turbine firing alone in process PO1 (natural gas combustion) or in combination with the auxiliary boiler in processes PO3 (natural gas combustion) or PO4 (distillate oil combustion), and together with or without the operation of the duct burners in process P10 (natural gas combustion). The CEM records are maintained on site for a minimum of five years. The emission limit of 25 ppmvd corrected to 15 percent oxygen was evaluated in a NOx RACT analysis performed as required under 6 NYCRR 227-2.4(e)(3). DEC approved the continuation of the existing presumptive RACT emission limit without requiring additional control technologies.	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
U-00001, 00001, P11	6 NYCRR Subpart 201-6	Item 54.1/54.2: The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart. Monitoring Description: The owner/operator shall install, calibrate, maintain, and operate a CEM to measure emissions of CO from the combustion turbine firing alone in process P11 (distillate oil combustion) or in combination with the auxiliary boiler in processes PO3 (natural gas combustion) or PO4 (distillate oil combustion), and together with or without the operation of the duct burners in process P10 (natural gas combustion). The CEM records are maintained on site for a minimum of five years.	2023
U-00001, PO1, 00001	6 NYCRR Subpart 201-6	The VOC emission limit for the combustion turbine firing natural gas is 0.002 lb/MMBtu (1.0 lb/hr). In order to determine compliance with these limits, the facility conducts a stack test once every five years while firing the duct burners. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, PO1, 00001	6 NYCRR Subpart 201-6	The PM, PM-10 emission limit for the combustion turbine firing natural gas is 0.005 lb/MMBtu (2.5 lb/hr). In order to determine compliance with these limits, the facility conducts a stack test once every five years while firing the duct burners. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, 00001, PO1	6 NYCRR Subpart 201-6	Item 61.1/61.2 - The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart. Emission Unit: U-00001 Emission Point: 00001 Process: PO1 Regulated Contaminant(s): CAS No: 000630-08-0 CARBON MONOXIDE	2023
U-00001, P11, 00001	6 NYCRR Subpart 201-6	The PM, PM-10 emission limit for the combustion turbine firing distillate oil is 0.031 lb/MMBtu (17.0 lb/hr). In order to determine compliance with these limits, the facility conducts a stack test once every five years while firing the duct burners. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, P11, 00001	6 NYCRR Subpart 201-6	The VOC emission limit for the combustion turbine firing distillate oil is 0.005 lb/MMBtu (2.5 lb/hr). In order to determine compliance with these limits, the facility conducts stack tests once every five years while firing the duct burners. The facility complies with this requirement through intermittent emission testing.	2023
FACILITY	6 NYCRR Subpart 201-6	Except during periods of start up, malfunction and shutdown the combustion turbine may operate under the following two scenarios: (1) may fire distillate oil only while operating at 100% load, and (2) may operate at partial loads between 80% and 100% only while firing natural gas. When the combustion turbine is operating at partial load the auxiliary boiler shall not operate. The facility must continuously measure ambient temperature within +/-3 degrees Fahrenheit. The facility complies with this requirement through recordkeeping/maintenance procedures.	2023
U-00004, 00004, P09, 00006	6 NYCRR Subpart 201-6	The facility conducts a stack test once every five years in order to determine compliance with the NOx emission limit of 0.10 lb/MMBtu for the steam boiler firing natural gas. The facility complies with this requirement through intermittent emission testing.	2023
U-00001, 00001	6 NYCRR Subpart 201-6	The facility is limited to three hours per startup of the combustion turbine. The facility shall record the duration of every startup. The facility complies with this requirement through monitoring of process or control device parameters as surrogate.	2023
U-00001, 00001	6 NYCRR Subpart 201-6	The facility is limited to one hour per shutdown of the combustion turbine. The facility shall record the duration of every shutdown. The facility complies with this requirement through monitoring of process or control device parameters as surrogate.	2023
U-00001, 00001	6 NYCRR Subpart 201-6	For the combustion turbine firing distillate oil, the owner or operator shall record the NOx and CO emissions in pounds for startup and shutdown. Once ten (10) startups and ten (10) shutdowns have been recorded, the owner or operator shall submit the startup and shutdown data with an application for permit modification to establish enforceable startup and shutdown emission rates for NOx and CO. The facility complies with this requirement through recordkeeping/maintenance procedures.	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
U-00001, 00001, PO1	6 NYCRR Subpart 201-6	The owner/operator shall install, calibrate, maintain, and operate a CEM to measure emissions of NOx during startup from the combustion turbine firing natural gas. The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart.	2023
U-00001, 00001, PO1	6 NYCRR Subpart 201-6	The owner/operator shall install, calibrate, maintain, and operate a CEM to measure emissions of NOx during shutdown from the combustion turbine firing natural gas. The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart.	2023
U-00001, 00001, PO1	6 NYCRR Subpart 201-6	The owner/operator shall install, calibrate, maintain, and operate a CEM to measure emissions of CO during startup from the combustion turbine firing natural gas. The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart.	2023
U-00001, 00001, PO1	6 NYCRR Subpart 201-6	The owner/operator shall install, calibrate, maintain, and operate a CEM to measure emissions of CO during shutdown from the combustion turbine firing natural gas. The facility uses a continuous emission monitoring system (CEMS) to comply with this subpart.	2023
FACILITY	6 NYCRR 201-6.4 (a) (4)	Item 15.1: Requirement to Provide Information The facility will furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.	2023
FACILITY	6 NYCRR 201-6.4 (a) (7)	Fees: The facility is in compliance with the requirement that the owner and/or operator of the stationary source pays fees to the Department in accordance with the fee schedule outlined in ECL 72-0303.	2023
FACILITY	6 NYCRR 201-6.4 (a) (8)	Item 16.1: Right to Inspect The facility is in compliance with the requirement that, upon presentation of credentials and any other legally required documents, the department or an authorized representative shall be granted access to: (i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit; (ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; (iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and (iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.	2023
FACILITY	6 NYCRR 201-6.4 (c)	Item 3.1: Recordkeeping/Reporting of Compliance Monitoring The facility is in compliance with the requirement that all necessary compliance monitoring records and reports include the following information. The following information must be included in any required compliance monitoring records and reports: (i) The date, place, and time of sampling or measurements; (ii) The date(s) analyses were performed; (iii)The company or entity that performed the analyses; (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required; (v) The results of such analyses including quality assurance data where required; and (vi) The operating conditions as existing at the time of sampling or measurement. Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.2 of Part 201.	2023
FACILITY	6 NYCRR 201-6.4 (c) (2)	Records of Monitoring, Sampling and Measurement The facility maintains compliance monitoring and recordkeeping in accordance with the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information are retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
FACILITY	6 NYCRR 201-6.4 (c) (3) (ii)	The facility submits reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports are submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements are clearly identified in such reports. All required reports are certified by the responsible official for this facility. The facility complies with this requirement through recordkeeping/maintenance procedures.	2023
FACILITY	6 NYCRR 201-6.4 (d) (4)	Program Reports Due Semi-Annually The facility submits program reports at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports contain the following: (i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and (ii) an explanation of why any dates in the schedule of compliance were not or will not.be met, and any preventive or corrective measures adopted.	2023
FACILITY	6 NYCRR 201-6.4 (e)	Item 6.1/6.2: Annual Compliance Certification Reports The facility complies with the compliance certifications details listed in this requirement through recordkeeping/maintenance procedures. Compliance certifications are submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department. All annual compliance certifications are submitted electronically or physically. Electronic reports are submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). Physical copies (two copies) are sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative).	2023
FACILITY	6 NYCRR 201-6.4 (f) (6)	Off Permit Changes No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility and the department shall attach each such notice to their copy of the relevant permit. (i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. (ii) The permit shield described in section 6 NYCRR 201-6.4 shall not apply to any change made pursuant to this paragraph.	2023
FACILITY	6 NYCRR 202-1.1	Required Emission Tests For the purpose of ascertaining compliance or noncompliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time.	2023
FACILITY	6 NYCRR 202-2.1	Item 7.1/7.2: The facility submits its annual emissions statement on or before April 15th for the previous calendar year.	2023
FACILITY	6 NYCRR 202-2.5	The facility maintains records for at least five years as required by the following: (1) a copy of each emission statement submitted to the department; and (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used. (b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.	2023
FACILITY	6 NYCRR 215.2	Item 9.1/Item 9.2: Open Fires - Prohibitions Except as allowed by Title 6 NYCRR Section 215.3, the facility does not burn, cause, suffer, allow or permit the burning of any materials in an open fire.	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
FACILITY	6 NYCRR 225-1.2 (h)	Owners and/or operators of a stationary combustion installations that fire distillate oil are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2016. The facility complies with this requirement through work practice involving specific operations. Compliance with this limit is based on vendor certifications.	2023
U-00001, 00001, P11, 00001	6 NYCRR 227-1.3	Observe the stack for each internal combustion engine which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow). The facility complies with this requirement through recordkeeping/maintenance procedures.	2023
U-00001, 00001, PO4, 00002	6 NYCRR 227-1.3	Observe the stack for each boiler which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow). The facility complies with this requirement through recordkeeping/maintenance procedures.	2023
U-00001	6 NYCRR 227-1.3 (a)	No owner or operator of a combustion installation shall operate the installation in such a way to emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average in reference test Method 9 in Appendix A of 40 CFR 60. The facility complies with this requirement through monitoring of process or control device parameters as surrogate.	2023
U-00001, P10	6 NYCRR 231-11.2 (b)	For a modification with a project emission potential that does not utilize the emissions exclusion allowed under section 231-4.1(b)(41)(i)(c) of this Part and which is less than 50 percent of the applicable significant project threshold in Table 3, Table 4 or Table 6 of Subpart 231-13 of this Part, or for a modification with a project emission potential which when added to emissions excluded in accordance with clause 231-4.1(b)(41)(i)(c) of this Part is less than 50 percent of the applicable significant project threshold in Table 3, Table 4 or Table 6 of Subpart 231-13 of this Part, the facility , in addition to complying with any requirements under Part 201 of this Title, maintains the following information for a minimum of five years: (1) A description of the modification. (2) An identification of each new or modified emission source(s) including the associated processes and emission unit. (3) The calculation of the project emission potential for each modified emission source(s) including supporting documentation. (4) The date the modification commenced operation. These recordkeeping requirements apply to exempt and trivial activities but do not affect their exempt or trivial permitting status under Subpart 201-3 of this Title. The facility must submit these records to the Department, upon the Department's request. The facility complies with this requirement through recordkeeping/maintenance procedures.	2023
FACILITY	40 CFR 60.11	Opacity Standard Compliance Testing - The facility uses the following conditions to determine compliance with the opacity standards: 1) observations shall be conducted in accordance with Reference Method 9, in Appendix A of 40 CFR Part 60(or an equivalent method approved by the Administrator including continuous opacity monitors); 2) the opacity standards apply at all times except during periods of start up, shutdown, and malfunction; and 3) all other applicable conditions cited in section 60.11 of this part.	2023
FACILITY	40 CFR 60.12	Circumvention - The facility does not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.	2023
FACILITY	40 CFR 60.13	All continuous monitoring systems and devices are installed, calibrated, maintained, and operated in accordance with the requirements of section 60.13.	2023
FACILITY	40 CFR 60.14	Modifications - The facility ensures that within 180 days of the completion of any physical or operational change (as defined in section 60.14), compliance with the applicable standards will be achieved.	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
U-00001, P10, 00007, 00008, PO3, 00002, PO4, 00002, U-00004, P09, 00006	40 CFR 60.48c (g)	The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The facility complies with this requirement through recordkeeping /maintenance procedures.	2023
U-00001	40 CFR 60.334	The facility monitors fuel sulfur and nitrogen content on a per delivery basis for distillate oil. Fuel sampling of natural gas is not required if the natural gas combusted meets the definition of natural gas as stated in 40 CFR 331(u). The facility complies with this requirement through recordkeeping /maintenance procedures.	2023
FACILITY	40 CFR Part 63 Subpart ZZZZ	The facility will comply with the applicable portions of 40 CFR 63 Subpart ZZZZ for reciprocating internal combustion engines.	2023
FACILITY	40 CFR Part 68	If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the facility ensures that the following requirements will apply: a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and; b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present: 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or, 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to: Risk Management Plan Reporting Center C/O CSC 8400 Corporate Dr Carrollton, Md. 20785	2023
FACILITY	40 CFR Part 72	This facility is subject to the Title IV Acid Rain Regulations found in 40 CFR Parts 72, 73, 75, 76, 77 and 78 and maintains allowances for each source. The Acid Rain Permit is an attachment to this permit.	2023
FACILITY	40 CFR Part 82 Subpart F	Recycling and Emissions Reduction - The facility complies with all applicable provisions of 40 CFR Part 82.	2023
FACILITY	40 CFR 97.406	The facility complies with this requirement through recordkeeping /maintenance procedures.	2023
FACILITY	40 CFR 97.506	The facility complies with this requirement through recordkeeping /maintenance procedures.	2023
FACILITY	40 CFR 97.606	The facility complies with this requirement through recordkeeping /maintenance procedures.	2023
FACILITY	ECL 19-0301	Item 74.1: Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions). CAS No: 000124-38-9 Name: CARBON DIOXIDE CAS No: 000630-08-0 Name: CARBON MONOXIDE CAS No: 007446-09-5 Name: SULFUR DIOXIDE CAS No: 0NY075-00-5 Name: PM-10 CAS No: 0NY210-00-0 Name: OXIDES OF NITROGEN CAS No: 0NY998-00-0 Name: VOC	2023

Methods Used to Determine Compliance			
Emission Unit	**Applicable Requirement**	**Method Used to Determine Compliance**	**Compliance Date**
FACILITY	6 NYCRR 201-1.4	Item 75.1: Malfunctions and Start-up/Shut-down Activities (a) The facility takes all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction. (b) The facility compiles and maintains records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department. (c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility compiles and maintains records of the malfunction and notifies the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility submits a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. (d) The facility, per Department request, include in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions. (e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.	2023
FACILITY	6 NYCRR 211.1	Air Pollution Prohibited - The facility does not cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.	2023
FACILITY	6 NYCRR 242-1.5	CO2 budget source and each CO2 budget unit at the source - The facility keeps on site at the source each of the following documents for a period of 10 years from the date the document is created. (i) The account certificate of representation for the CO2 authorized account representative for the source and each CO2 budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 6NYCRR Part 242-2.4, provided that the certificate and documents shall be retained on site at the source beyond such 10-year period until such documents are superseded because of the submission of a new account certificate of representation. (ii) All emissions monitoring information, in accordance with Subpart 242-8 and 40 CFR 75.57. (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CO2 Budget Trading Program. (iv) Copies of all documents used to complete a CO2 budget permit application and any other submission under the CO2 Budget Trading Program or to demonstrate compliance with the requirements of the CO2 Budget Trading Program. The CO2 authorized account representative of a CO2 budget source and each CO2 budget unit at the source shall submit the reports and compliance certifications required under the CO2 Budget Trading Program, including those under Subpart 242-4.	2023
FACILITY	6 NYCRR Subpart 242-4	Item 77.1/77.2: Annual Compliance Certification The facility complies with this requirement through recordkeeping /maintenance procedures and submits an Annual Compliance Certification Report for its CO2 budget sources.	2023
FACILITY	6 NYCRR 242-8.5	Item 78.1/78.2: Recordkeeping and Reporting The facility complies with the monitoring, recordkeeping and reporting requirements through recordkeeping /maintenance procedures as per this subpart and submits quarterly reports within 30 days after a reporting period for its CO2 budget sources.	2023

Exhibit B

Item 4

Operating Data

Table B-1
Greenhouse Gas Calculations - Emissions Factors
World Generation X, LLC - North Tonawanda, NY

Fuel Type	Pollutant	GWP Multiplier 20-year [a]	Combustion [b]		Upstream [c]		Downstream [d][e]		Total Aggregate Emission Factor
			(kg/MMBtu)	(lb/MMBtu) [f]	(g/MMBtu)	(lb/MMBtu) [f]	(g/MMBtu)	(lb/MMBtu) [f]	(lb/MMBtu)
Natural Gas	CO_2	1	53.06	116.98	12,272	27.05	2.36	5.20E-03	**144.04**
	CH_4	84	1.00E-03	2.20E-03	361	0.80	81	0.18	**0.98**
	N_2O	264	1.00E-04	2.20E-04	0.14	3.09E-04	-	-	**5.29E-04**
	CO_2e	-	53.17	117.22	42,661	94.05	6,798	14.99	**226.26**
Diesel/Distillate Oil	CO_2	1	73.96	163.05	14,104	31.09	-	-	**194.14**
	CH_4	84	3.00E-03	6.61E-03	120	0.26	-	-	**0.27**
	N_2O	264	6.00E-04	1.32E-03	0.26	5.73E-04	-	-	**1.90E-03**
	CO_2e	-	74.37	163.96	24,214	53.38	-	15.42	**232.76**

[a] Global warming potentials using GWP20 per 6 NYCRR, Chapter 4, Part 496, Section 5.

[b] Combustion emissions factors for natural gas and No. 2 fuel oil/petroleum products taken from Table C-1 to Subpart C of 40 CFR Part 98 for CO_2 and Table C-2 to Subpart C of 40 CFR Part 98 for CH_4 and N_2O.

[c] Upstream emissions factors from the 2023 NOIA, Table A1.

[d] Downstream emissions factors taken from the 2023 NOIA, Table A3.

[e] A downstream emissions factor for distillate oil was not provided in the 2023 NOIA memo Table A3. This factor was conservatively estimated by scaling the natural gas upstream emissions factor by the ratio of distillate oil to natural gas upstream plus combustion emissions factors.

[f] Calculations completed using the following conversion factors:

Conversion Factors	
453.600	g/lb
1,000	g/kg

World Generation Operating Data

Date	Schedule Reason	Total Run Hours	Total MW Delivered to Utility	Total MW Delivered to BTM	NOX Mass Tons	CO Mass Tons	SO2 Mass Ton
2021 QTR 1	Utility Operations	12	0	0	0.0	0.0	0.0
2021 QTR 2	No plant operations	0	0	0	0.0	0.0	0.0
2021 QTR 3	Utility Operations	66.6	5062.5	0	2.6	1.4	0.0
2021 QTR 4	Utility Operations	3.5	88.3	0	0.1	0.0	0.0
2022 QTR 1	Utility Operations	661.6	38498.3	0	10.8	7.5	0.1
2022 QTR 2	Utility Operations	52.1	2568.4	0	0.3	0.2	0.0
2022 QTR 3	Utility Operations	119.3	5729.5	0	1.1	0.6	0.0
2022 QTR 4	Utility Operations	147.6	8304.4	0	3.4	1.1	0.0
2023 QTR 1	Utility Operations	66.3	3890	0	1.3	0.5	0.0
2023 QTR 2	Utility & Behind The Meter Operations	291.7	3081.6	10807.1	4.3	2.7	0.1
2023 QTR 3	Utility & Behind The Meter Operations	523.5	12105.1	13685.6	8.6	4.3	0.1
2023 QTR 4	Utility & Behind The Meter Operations	512.2	5309.1	20628.7	6.6	3.9	0.1
2024 QTR 1	Utility & Behind The Meter Operations	2059.6	22470.5	20369.1	29.3	12.3	0.3
2024 QTR 2	Utility & Behind The Meter Operations	2122.7	20369.1	81752.8	33.6	11.0	0.3

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 9
700 Delaware Avenue, Buffalo, NY 14209
P: (716) 851-7165 | F: (716) 851-7168
www.dec.ny.gov

VIA E-MAIL AND CERTIFIED MAIL RETURN RECEIPT REQUESTED

September 24, 2024

David P. Flynn, Esq.
Phillips Lytle LLP
One Canalside
125 Main Street
Buffalo, NY 14203-7887

Dear David P. Flynn:

Comments on Part 1 of the reply to RFAI
WGX (fka Fortistar North Tonawanda)
Air Title V Renewal
Permit No. 9-2912-00059/00013

The New York State Department of Environmental Conservation (DEC) reviewed Part 1 of WGX's (fka Fortistar North Tonawanda) response dated September 12, 2024, but submitted on September 13, 2024, to DEC's Request for Additional Information (RFAI) dated July 26, 2024 and retransmitted via e-mail to Daniel Rotunno on August 20, 2024. Mr. Rotunno confirmed receipt of this request via e-mail on August 20, 2024.

The reply dated September 12, 2024 states that revisions may be made to the information provided when the final version is submitted on September 30, 2024. Please consider the following when finalizing the response to Item 4:

1. Table B-1 provides greenhouse gas (GHG) emission factors but not actual emissions data as requested in the July 26, 2024 RFAI and as clarified in DEC's September 11, 2024 letter.

2. The World Generation Operating Data table in Exhibit B, shows that the total run time during the first and second quarters of 2024 were similar, but the total Megawatts (MW) generated was significantly different. For example, the plant ran for about 3% more hours in the 2nd quarter than the 1st quarter, but the plant appears to have generated 138% more MW in the 2nd quarter than the 1st quarter. Please explain the difference and correct the table as appropriate.

Please contact me at 716-851-7165 if you have any questions regarding this letter.

Respectfully,

Lisa M. Czechowicz

Lisa M. Czechowicz
Regional Permit Administrator

Ecc: Terri Mucha, NYSDEC Region 9, Office of General Counsel
Michael Emery, NYSDEC Region 9, Regional Engineer
Cheryl Webster, NYSDEC Region 9, Regional Air Pollution Control Engineer
Geoffrey Knall, NYSDEC Region 9, Division of Air Resources
Michelle Woznick, NYSDEC Region 9, Division of Environmental Permits
Daniel Rotunno, Plant Manager, WGX