Attorney-Client Privileged and Confidential, Prepared at Request of Counsel

February 27, 2025

Matthew J. Fitzgerald
Senior Associate
Phillips Lytle, LLP
One Canalside
125 Main Street
Buffalo, NY 14203-2887
MFitzgerald@phillipslytle.com

Re: Air Quality Services for STAMP

Dear Mr. Fitzgerald:

In accordance with our proposal dated January 13, 2025, C&S Engineers, Inc. (C&S) reviewed each of the three air quality submittals associated with locating a data center at the Science, Technology, and Advanced Manufacturing Park (STAMP) facility in the Town of Alabama, Genesee County, New York. The air quality information for the three proposals is only for the redundant power supply, and does not address other potential sources of emissions associated with buildings, such as heat sources (boilers, heaters, etc.) In addition, it is our understanding that there will be no process emissions from any of the data centers. This letter report summarizes each report (as well as other information provided to C&S by Phillips Lytle LLP), the air regulatory requirements, and the air permitting implications of the data center. In addition, this correspondence also addresses the reports consistency with the Draft Generic Environmental Impact Statement (GEIS), a qualitative analysis of impacts to the surrounding community, including the Tonawanda Seneca Nation, and actions required to comply with the New York State Climate Leadership and Community Protection Act (CLCPA).

The following provides the list of documents reviewed during our analysis and a summary of items in each document.

Project Rampart, Redundant Generator Emission Report, Prepared by Roux Environmental Engineering and Geology, D.P.C.

- The project is anticipated to require 120 back-up power generators.
- The expected potential emissions per Project Rampart would require a State Facility Air Permit, with Federally Enforceable Emission Caps.
- The submittal does not adequately calculate Potential to Emit (PTE).
- Sulfur dioxide emissions are high and Rampart's report submittal may not account for using low sulfur fuel.

Project Hydroscale BUF01 Data Center General Environmental Impact Statement Consistency Analysis, Alabama, New York STAMP Development Site

- Submittal indicates the GEIS analysis was prepared to assess consistency with the *Draft GEIS for the Western New York Science & Technology Advanced Manufacturing Park* dated April 14, 2011.
- The project is anticipated to require 200 back-up power generators.
- The expected potential emissions for Project Hydroscale would require a State Facility Air Permit, with Federally Enforceable Emission Caps.
- The submittal does not adequately calculate PTE.

Project Double Reed Generators Technical Summary – Backup Power and Air Emissions

- The project is anticipated to only require 6 back-up power generators and has far less projected actual emissions than either Project Rampart or Project Hydroscale.
- The projected actual emissions for Project Double Reed could allow for an Air Facility Registration, under Emission Capping by Rule, specified in 6 NYCRR 201-4.5. This regulation requires registered facilities to maintain actual emissions of each regulated air contaminant at less than 50 percent of the major facility threshold.
- The submittal does not adequately calculate PTE.

New York State Department of Environmental Conservation (NYSDEC) STAMP SEQR and Permitting Comments on the Full Environmental Assessment Form (FEAF) for Project Rampart, dated January 21, 2025

- This correspondence was based on the Full Environmental Assessment Form (FEAF) for Project Rampart submitted on October 28, 2024.
- NYSDEC claims that Project Rampart would be considered a Major Source that will be potentially subject to Non- Attainment New Source Review. The EAF lists 441 tons/yr of N2O and 88 tons/yr of Hazardous Air Pollutants (HAPs), and 1.5 million tons/yr of CO2e, requiring a Title V permit and triggering Climate Leadership and Community Protection Act (CLCPA) 7(2) and 7(3) reviews.
- It should be noted that the documentation provided to C&S does not match these values. We understand that the three companies provided the herein-referenced air reports as supplements to the FEAFs submitted by the companies which were subsequently revised.

Project Rampart FEAF Form, dated December 31, 2024

- The FEAF Form is for a new data center facility for Project Rampart.
- The only stationary source listed is the backup generators. No emissions are listed in FEAF. We understand that the three companies provided the herein-referenced air reports as supplements to the FEAFs submitted by the companies.

Tonawanda Seneca Nation (Nation), Nation Preliminary Comments, dated January 30, 2025

- The Air Pollution section of this correspondence restates the potential emissions from the three data center projects.
- Similar to NYSDEC comment of January 21, 2025, states the project will emit approximately 441 tons/yr of N_2O and 88 tons/yr of HAPs, and 1.5 million tons/yr of CO2e.
- The correspondence highlights the negative impact of diesel fuel generation on disadvantaged communities and potential contribution of NO_2 and CO_2 on respiratory illnesses and cardiatric symptoms.

STAMP Draft Generic Environmental Impact Statement (GEIS), Section 6.3 Air Resources

The Draft GEIS states the following:

- Genesee County is classified as attainment for parameters subject to National Ambient Air Quality Standards (NAAQS).
- Based on a microscale air quality analysis, the Project will not increase traffic volumes, reduce source-receptor distances, or change other existing conditions that would jeopardize the attainment status with the NAAQS.
- Although prepared for potential manufacturing air-related impacts, the GEIS provides estimated criteria pollutant emissions associated with fuel combustion sources.
- The Draft GEIS provides typical emission control strategies for back-up power generators.

GEIS Section 6.4 Air Resources
Section 6.4 of the GEIS states the following:

- Based on the Traffic Impact Study, an air quality analysis for mobile sources is not necessary for the Project, since it will not increase traffic volume, reduce source-receptor distances, or change the existing conditions to jeopardize the attainment status.
- The Project is expected to have actual emissions less than major source threshold and be regulated under a State Facility Air Permit.
- Temporary air quality impacts, such as dust, are likely to occur during construction.
- Genesee County Economic Development Corporation (GCEDC) finds that the potential impacts to air resources will be avoided, minimized and/or mitigated to the maximum extent practical with implementation of the permitting requirements.

Analysis

Table 1 summarizes the proposed equipment, fuel usage, and expected air emissions outlined in each of the three proposals. C&S also calculated PTE based on regulatory definition, which would indicate that each facility would have to obtain a Title V Permit, unless Federal Enforceable Emission Caps are agreed upon. **Table 1** also summarizes the PTE calculations.

Regulatory Review

According to 6 NYCRR 201-3.2(c)(6), emergency power generating stationary internal combustion engines as defined in Section 200.1(cq) are considered an "exempt activity." Stationary internal combustion engines used for peak shaving and/or demand response programs are not exempt.

Emergency power generating stationary internal combustion engines are defined in Section 200.1(cq) as a stationary internal combustion engine that operates as a mechanical or electrical power source only when the usual supply of power is unavailable, and operates for no more than 500 hours per year. The 500 hours of annual operation for the engine includes operation during emergency situations, routine maintenance, and routine exercising (for example, test firing the engine for one hour a week to ensure reliability). If a state disaster emergency is declared pursuant to Section 28 of the New York State Executive Law, the 500-hour limitation is suspended for the duration of the state disaster emergency. A stationary internal combustion engine used for peak shaving generation or demand response programs is not an emergency power generating stationary internal combustion engine.

However, **6 NYCRR 201-3.1 indicates that an emission source listed as an exempt or trivial activity is only exempt from the registration and permitting provisions**. This does not mean that these activities are exempted from other applicable requirements or from applicable registration and/or permitting requirements of local air pollution control agencies.

In addition**, emissions from exempt activities must be included in potential to emit calculations when determining whether a facility or emission source is subject to Title V facility permitting** pursuant to Subpart 201-6 or New Source Review. **If the total potential to emit from one or more exempt activities at a facility exceeds, or causes the facility to exceed, the major facility threshold, these activities are no longer considered to be exempt from permitting.** If physical and/or operational restrictions are required to maintain the total potential to emit from one or more of the listed exempt activities below the Title V applicability thresholds or New Source Review requirements in 6 NYCRR 231, the activities are not considered exempt for permitting purposes.

Potential to Emit is defined as the maximum capacity of an air contamination source to emit any regulated air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the emission source to emit a regulated air pollutant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as a part of the design if the limitation is enforceable by the department and the administrator. Fugitive emissions, to the extent that they are quantifiable, are included in determining the potential to emit where required by an applicable requirement.

Implications on Air Permitting

In calculating the PTE, based on the maximum capacity at 8,760 hours of operation for the needed generators, the oxides of nitrogen and carbon monoxide exceeded major source thresholds for all three data center projects, while particulate matter and volatile organic compounds exceeded the major source for Project Rampart and Project Hydroscale. Based on the submittals, the expected actual emissions for Project Rampart and Project Hydroscale are below major source thresholds, but greater than 50% of the major source thresholds. Therefore, both of these projects could obtain a State Facility Air Permit with emission caps limiting emissions to below major source thresholds, while Double Reed may be able to obtain an air registration under 6 NYCRR 201-4.5, Emission Capping by Rule, as they only have 6 generators and their expected actual emissions are below 50% of the major source thresholds. However, NYSDEC may elect to issue a State Facility Air Permit to incorporate the emission caps as part of the permit.

It should be noted that these projects would need to also comply with the following requirements:

- New Source Performance Standards (NSPS) 40 CFR Subpart IIII
- National Emission Standards for Hazardous Air Pollutants (NESHAPs)- 40 CFR Subpart ZZZZ
- 6 NYCRR Part 225 (Fuel Composition and Use), and
- 6 NYCRR Part 227 (Stationary Combustion Installations)
- 6 NYCRR Part 231(New Source Review for New and Modified Facilities)

Consistency with Draft GEIS

The Draft GEIS Air Quality Section identifies existing conditions, potential impacts and mitigation measures, as well as potential permitting requirements, climate impacts and construction related air impacts. The existing emissions in the project area are associated with vehicular traffic and farm operations. According to the Draft GEIS, the project is in an area classified as attainment for carbon monoxide and ozone and will not jeopardize attainment with these and other National Ambient Air Quality Standards (NAAQS). Typical control strategies for combustion sources are mentioned including optimized combustion mechanics for emergency generators to comply with USEPA New Source Performance Standards.

The Draft GEIS provided estimated emissions from Fuel Combustion Sources for a single representative factory and the combined facilities. **Table 2** provides the estimated annual criteria pollutant emissions within the Draft GEIS compared to the estimated potential emissions from the three development proposals. The air quality proposal from Double Reed is the only project where the potential emissions are below the estimated criteria pollutant emissions from fuel combustion sources for a single facility for all parameters. It should be noted that the Double Reed proposal does not currently estimate emissions from sulfur dioxide although Double Reed has been asked to provide this information. In the meantime, given the expected fuel usage and the required use of low sulfur diesel, C&S would expect that the actual emissions of sulfur dioxide would be below the 6.2 tons per year cited in the Draft GEIS.

As mentioned in the Implications of Air Permitting section, each of the three developers would be required to meet Federal and State regulations associated with the emergency generators, including NSPS, NESHAPs, and

fuel combustion requirements. Since the number of emergency generators is substantially less than the other two proposals, the Double Reed Project is the only proposal with estimated potential emissions below the criteria pollutant emission levels analyzed in the Draft GEIS. As explained previously, the expected actual emissions are below one half the major source thresholds and the facility could potentially Cap by Rule.

Qualitative Analysis of Impacts

Air emissions associated with combustion of fuels can potentially have an impact on the surrounding community as well as contribute to climate change with the release of GHGs. In addition, there will be minor temporary air quality impacts associated with construction of these facilities. As stated in the Draft GEIS, Genesee County is classified as attainment for parameters subject to National Ambient Air Quality Standards (NAAQS), including carbon monoxide and ozone. None of the proposals appear to include a project that would operate as a major source of air pollutants that would require a Title V Air Permit.

The Tonawanda Seneca Nation (Nation), in its correspondence dated January 30, 2025, expressed concern with the negative health impact of diesel fuel generation on disadvantaged communities and potential contribution of NO2, N20 and CO2 on respiratory illnesses and cardiatric symptoms. Based on the documents received and as illustrated in **Table 1**, the Double Reed project has the lowest annual fuel usage, associated annual emissions, and PTE. Therefore, the potential impact on the community associated with the combustion of diesel fuel would be the lowest and below the thresholds analyzed in the GEIS. Further, the low levels of emissions from Double Reed will not result in any violation of NAAQS. In addition, as detailed in Figure 4-3 of the GEIS, prevailing winds travel west to east across the Nation's Territory through the STAMP Site, such that any emissions from Double Reed would, on balance, travel away from the Nation' Territory.

Temporary air quality impacts, such as dust from material movement, are likely to occur during construction. According to the GEIS Section 6.4, Air Resources, the generation of dust will be consistent with existing conditions associated with agricultural uses. In addition, best management practices should be followed to minimize air quality impacts from construction.

Climate Leadership and Community Protection Act

The New York State CLCPA went into effect January 1, 2020 (Chapter 106 of the Laws of 2019) and includes economy-wide requirements to reduce GHG emissions in New York State by 40% below 1990 levels by 2030, and 85% below 1990 levels by 2050. When issuing permits, Section 7(2) of CLCPA requires all state agencies to consider "whether such decisions are inconsistent with, or will interfere with, the attainment of the statewide GHG emission limits established in Article 75 of the environmental conservation law." This policy applies to all applications for permit actions received by the NYSDEC and can be required for registrations.

While GCEDC does not issue air permits or other state approvals subject to the CLCPA, the selected proposal would need to complete a CLCPA analysis as part of their application for an air permit from NYSDEC. The CLCPA analysis would need to identify the actual and PTE GHG emissions in carbon dioxide equivalents (including upstream and downstream emissions) as well as evaluate the technical and economic feasibility of any alternatives or GHG mitigation measures associated with the project. **Table 3** provides an estimate of the GHG emissions as well as the carbon dioxide equivalents for each of the three projects.

Based on the information received as well as the estimated GHG emissions, Double Reed Generators would emit the lowest amount of GHGs, as the submittal includes only 6 generators with the lowest projected fuel usage, while Project Rampart and Project Hydroscale anticipate having 120 and 200 generators, respectively. Therefore, the impact upon New York State meeting the GHG emission reduction levels in 2030 and 2050 would be the lowest from Project Double Reed.

We appreciate this opportunity to propose environmental services for Phillips Lytle, LLC. If you have any questions regarding this report or require any additional information, please contact me.

Very truly yours,

C&S ENGINEERS, INC.

John R. Trendowski, P.E., LEED AP
Senior Principal

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Table 1

Summary of Data Center Proposals

	Project Rampart	Project Hydroscale	Double Reed Project	
Number of Generators	120	200	6	
Annual Generator Operating Time (hours)	40	32.5	43	
Total Generator Operating Time (hours)	4,800	6,500	258	
Annual Fuel Usage (gallons)	693,600	1,285,050	37,281	
Double Reed annual fuel usage based on operating hours multiplied by 144.5 gallons/hour				
Estimated Emissions (from Proposals)	**Project Rampart**	**Project Hydroscale**	**Double Reed Project**	**Major Source Threshold**
Oxide of Nitrogen (NOx) in tpy	89	99.9	8.6	100
Volatile Organic Compounds (VOCs) in tpy	1.4	7.0	0.11	50
Carbon Monoxide (CO) in tpy	12	21.2	0.77	100
Particulate Matter (PM) in tpy	0.9	3.2	0.08	100
Sulfur dioxide (SO2) in typ	48	0.1	0.004	100
Hazardous Air Pollutants (HAPs) in tpy	0.07	NL	0	25
The sulfur dioxide emissions were not in Double Reed submittal, but calculated by C&S Engineers using AP-42 and low sulfur fuel.				
Potential to Emit (PTE)				
(Calculated by C&S)				
	Project Rampart	**Project Hydroscale**	**Double Reed Project**	
Number of Generators	100	167	6	
Annual Generator Operating Time (hours)	8,760	8,760	8,760	
Total Generator Operating Time (hours)	876,000	1,462,920	52,560	
Annual Fuel Usage (gallons)	126,582,000	289,219,284	7,594,920	
	Project Rampart	**Project Hydroscale**	**Double Reed Project**	**Major Source Threshold**
Oxide of Nitrogen (NOx) in tpy	16,243	22,484	1,752	100
Volatile Organic Compounds (VOCs) in tpy	256	1,575	22	50
Carbon Monoxide (CO) in tpy	2,190	4,771	157	100
Particulate Mattter (PM) in tpy	164	720	16	100
Sulfur dioxide (SO2) in typ	8,760	22.5	0.81	100
Hazardous Air Pollutants (HAPs) in tpy	13	NL	0	25

The annual fuel usage and sulfur dioxide emissions were not in Double Reed submittal.

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Table 2

Comparision of DRAFT DEIS Projected Criteria Pollutants with Developer Submittals

Estimated Emissions (from Proposals)	DRAFT GEIS Single Facility	DRAFT GEIS All Facilities	Project Rampart	Project Hydroscale	Double Reed Project
Oxide of Nitrogen (NOx) in tpy	22.4	164.1	89	99.9	8.6
Volatile Organic Compounds (VOCs) in tpy	1.2	8.5	1.4	7.0	0.11
Carbon Monoxide (CO) in tpy	16.8	123.4	12	21.2	0.77
Particulate Matter (PM) in tpy	1.7	12.8	0.9	3.2	0.08
Sulfur dioxide (SO2) in typ	6.2	45.8	48	0.1	0.004

Double Reed sulfur dioxide value calculated by C&S Engineers.

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Table 3

Calculation of Greenhouse Gas Emissions

	Project Rampart	Project Hydroscale	Project Double Reed
Number of Generators	120	200	6
Annual Generator Operating Time (hours)	40	32.5	43
Total Generator Operating Time (hours)	4,800	6,500	258
Annual Fuel Usage (gallons)	693,600	1,285,050	37,281
Double Reed annual fuel usage Based on Operating Hours Multiplied by 144.5 gallons/hour			
Estimated GHG Emissions	**Project Rampart**	**Project Hydroscale**	**Double Reed Project**
Carbon Dioxide in tpy	7,834	14,346	533
Methane in tpy	0.314	0.581	0.017
Nitrous Oxide in tpy	0.063	0.116	0.003
Carbon Dioxide Equivalents in tpy	7,877	14,425	535
Project Hydroscale CO2 emissions were calculated based on fuel usage.			
Potential to Emit (PTE)			
(Calculated by C&S)			
	Project Rampart	**Project Hydroscale**	**Double Reed Project**
Number of Generators	100	167	6
Annual Generator Operating Time (hours)	8,760	8,760	8,760
Total Generator Operating Time (hours)	876,000	1,462,920	52,560
Annual Fuel Usage (gallons)	126,582,000	289,219,284	7,594,920
	Project Rampart	**Project Hydroscale**	**Double Reed Project**
Carbon Dioxide in tpy	1,429,705	3,228,684	108,583
Methane in tpy	57	131	3.4
Nitrous Oxide in tpy	11	26	0.7
Carbon Dioxide Equivalents in tpy	1,437,534	3,246,571	109,053

GHG Emission Factors from Table C-1 of Part 98, with the 20 year GWP of 84 for methane and 264 for nitrous oxide from 2024 NYS Statewide GHG Emissions Report-Emission Factors for Use by State Agencies and Applicants Table A1

Number 2 fuel oil heat value assumed to be 0.137 MMbtu/gal.