

Phyllis Fox, Ph.D., PE, DEE, QEP
745 White Pine Ave.
Rockledge, FL 32955

July 19, 2013

Deborah Goldberg
Earthjustice Northeast Office
156 William Street, Suite 800
New York, NY 10038

Dear Ms. Goldberg:

As you requested, I have reviewed the environmental impact statements and supporting information for the Finger Lakes LPG Storage Facility (Project) to assess air quality impacts. I reviewed: (1) Generic Environmental Impact Statement (GEIS);¹ (2) Draft Supplemental Environmental Impact Statement (DSEIS);² (3) draft Final Supplemental Environmental Impact Statement (dFSEIS);³ and (4) supporting documents that you supplied, as identified below. These documents do not analyze air quality impacts and do not contain any of the information required to assess air quality impacts. In fact, the project description is so fragmented and incomplete that I read portions of these documents multiple times in an effort to figure out exactly what is being proposed. Air quality impacts cannot be assessed without a clear, finite project description that identifies and describes all of the equipment/activities that will emit air pollution.

The applicant, Finger Lakes LPG Storage, LLC, proposes to construct and operate a new underground liquefied petroleum gas (LPG) storage facility to store and distribute propane and butane on a portion of a 576-acre site, in the Town of Reading, New York. The storage facility will use existing salt caverns in the Syracuse salt formation created by U.S. Salt and its predecessors' salt production operations. A maximum of 2.1 million barrels (88.2 million gallons) of LPG will be stored in these caverns seasonally.

The facility would import LPG by pipeline (TEPCO) or rail; transfer it to pressure tanks; and pump it into brine-filled underground salt caverns. The LPG injected into the salt caverns displaces the brine to overhead brine ponds, where most of the brine is stored until it is needed to displace LPG. Brine removed from the caverns goes through a physical degasification process to remove entrained LPG, which is sent to a flare for

¹ New York State Department of Environmental Conservation, Division of Mineral Resources, Final Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program (July 1992, Reprinted Without Revision 2003), available at: <http://www.dec.ny.gov/energy/45912.html>

² New York State Department of Environmental Conservation, Region 8, Draft Supplemental Environmental Impact Statement, Finger Lakes LPG Storage, LLL LPG Storage Facility (Aug. 2011), available at: <http://www.fingerlakeslpgstorage.com/>

³ New York State Department of Environmental Conservation, Region 8, Final Supplemental Environmental Impact Statement, Finger Lakes LPG Storage, LLL LPG Storage Facility) (Jan. 2012) draft provided in response to a Freedom of Information Law request by Gas Free Seneca.

combustion. When there is demand for LPG, it is displaced from the caverns by injecting brine from the storage ponds back into the caverns. The removed LPG is then exported to market by pipeline, truck, or rail.⁴

The GEIS, DSEIS, and dFEIS do not evaluate air quality impacts and do not contain any of the information required to evaluate these impacts. This project includes many sources of air emissions that will release: volatile organic compounds (VOCs), nitrogen oxides (NO_x), sulfur oxides (SO_x), carbon monoxide (CO), particulate matter (PM/PM₁₀/PM_{2.5}), greenhouse gas emissions (CO_{2e}), and diesel particulate matter, a potent carcinogen. The DSEIS and dFEIS did not make any attempt to estimate these emissions; nor do they contain any of the information required to estimate these emissions. The DSEIS and dFEIS, for example, do not contain any process flow diagrams showing how all the pieces fit together nor any size information for equipment that releases emissions, such as firing rates and other characteristics of the equipment required to estimate emissions. Rather, air quality impacts are dismissed without any analysis at all as insignificant. dFEIS, pp. 193 - 196. The potential air emission sources are:

Brine Pond: The displaced brine will be stored in two aboveground ponds. The East Pond will store 171,000 barrels of brine, have a surface area of 1.8 acres, and dimensions of 182 ft by 400 ft. dFEIS, p. 5. The West pond will store 1 million barrels of brine, have a surface area of 6.8 acres, and dimensions of 320 ft by 915 ft. dFEIS, p. 6. During injection of LPG, brine will mix with LPG and be displaced out of the bottom of the salt cavern as LPG is pumped in the top. The process will be reversed when product is removed, with brine pumped into the bottom of the cavern and LPG withdrawn from the top. DSEIS, pp. 7, 10. This brine will have been in intimate contact with LPG stored in the salt caverns. While some of the entrained LPG will be removed by the brine separator/flare systems, described below, the brine will still contain residual LPG, which will be emitted from the surface of the brine ponds as VOCs.

Salt Caverns: LPG, consisting of butane or propane, will be stored in separate underground salt caverns. Quantitative Risk Analysis (QRA),⁵ p. 2-1. While the applicant claims salt is impermeable to hydrocarbons and is self-healing in the sense that it naturally flows and seals any fractures,⁶ experience at other similar facilities indicate that leakage of VOCs from the caverns is possible.⁷

⁴ Imports: 90% of propane and 75% of butane will arrive by pipeline, the balance by rail. Exports: 75% of the propane and 25% of the butane will leave by truck and 10% of the propane and 75% of the butane will leave by rail, the balance will leave by pipeline. Letter from Kevin Bernstein, Bond Schoeneck & King, to David Bimber, NYDEC, Exhibit 10, Truck and Rail Product Allocation (Jan. 20, 2012).

⁵ Quest Consultants Inc., Quantitative Risk Analysis for the Finger Lakes LPG Storage Facility (prepared for Inergy Midstream, Feb. 16, 2012).

⁶ See, e.g., Letter from Kevin Bernstein, Bond Schoeneck & King, to David Bimber, NYDEC, Attachment 13 (Jan. 20, 2012).

⁷ J.H. Shorter et al., Collection of Leakage Statistics in the Natural Gas System by Tracer Methods, Environ. Sci. Technol., v. 31, 1997, pp. 2012-2019.

LPG Injection Pumps: Three 75-hp electric LPG injection pumps will be used to transfer product between the pipeline, bullet tanks, unloading racks, and salt caverns. DSEIS, p. 8, Fig. 2b. Pumps generally have seals joining metal parts that leak VOCs under normal operating conditions.

Product/Brine Injection Pumps: Four 700-hp, 800-gpm electrically driven pumps will be used to inject product in and displace brine out of the salt caverns. DSEIS, pp. 9, 33, Appx. I, pdf 25. One additional brine pump will be used at West Pond. dFSEIS, p. 6. Pumps generally have seals joining metal parts that leak VOCs under normal operating conditions.

Bullet Tank Pumps: Two electrically driven, 75-hp pumps will be used to pump product from the bullet tanks into the pipeline for injection into the caverns using the LPG injection pumps. DSEIS, p. 33. Pumps generally have seals joining metal parts that leak VOCs under normal operating conditions.

Fire Safety Water Pump: This is presumably a diesel-fueled pump, to be used when power is lost. dFSEIS, p. 7. These pumps are typically tested once a month for 1-2 hours and limited by permit to 50 to 100 hours per year. Thus, it would be a source of combustion emissions during testing (NO_x, SO₂, CO, VOCs, PM/PM₁₀/PM_{2.5}, CO_{2e}).

Portable Backup Generator: In the event of a power failure, one or more portable generators will be used to recirculate brine, if necessary. dFSEIS, p. 120. The generator(s) would need to be periodically tested, which would release combustion emissions. The number of hours of operation, typically 50 to 100 hrs/yr, is normally limited by permit. Thus, it would be a source of combustion emissions during testing (NO_x, SO₂, CO, VOCs, PM/PM₁₀/PM_{2.5}, CO_{2e}).

Diesel Tank(s): Presumably, one or more diesel storage tank(s) would be required to support the fire safety water pump and portable backup generator, though one was not identified in the documents I reviewed. This tank(s) would emit VOCs.

Compressors: Six 40-hp electric vapor compressors will be used to unload LPG from rail cars into bullet tanks. DSEIS, pp. 8, 113. Compressors generally leak at flanges, valves, and fittings as well as piston rod packing systems. Packing systems are used to maintain a tight seal around the piston rod, preventing the gas compressed to high pressure from leaking while allowing the rod to move freely. Under the best conditions, new packing systems properly installed leak at a minimum rate of 11.5 scfh.⁸

Propane and Butane Pipelines: There will be about 10,800 linear feet of 8- and 10-inch diameter steel pipe that likely will be joined with fittings, some of which may be buried. DSEIS, pp. 7, 10, Fig. 2b; QRA, pp. 2-3 to 2-5, 4-3. The fittings leak VOCs

⁸ U.S. EPA, Lessons Learned from Natural Gas STAR Partners: Reducing Methane Emissions from Compressor Rod Packing Systems, available at: http://www.epa.gov/gasstar/documents/ll_rodpack.pdf

under normal operating conditions. The pipeline will feed the suction of the injection pumps directly into the cavern at an initial design rate of 5,100 BPD. DSEIS, p. 10. VOC leaks will occur at connectors where the pipeline joins the pumps. Pressurized material in these pipelines must be periodically vented (blowdown) to atmosphere, during normal maintenance or emergency shutdowns and may occur monthly.⁹ These events release VOC emissions.

Storage Bullet Tanks: Product brought in by rail will be first unloaded into 5 aboveground 30,000-gallon storage bullet tanks, 65 feet long and 8 feet in diameter (DSEIS, Appx. E, Part 2), using six 40-hp compressors. DSEIS, p. 8. Product in these tanks will be loaded into tractor trailer transports or injected into the storage caverns. DSEIS, p. 121. When material is introduced into these tanks, it will displace any vapors in the tanks and emit them to atmosphere, unless vapors are collected and routed to the flare or otherwise controlled.

Train/Truck Loading Facilities: Product will arrive and leave by rail or truck. The rail loading rack will be designed to load/unload up to 24 rail cars in 12 hours. DSEIS, p. 9. The truck rack will be capable of loading 30 trucks/day with 2 bays, expandable to 4. DSEIS, pp. 9, 123. The dFSEIS estimates 2 trucks every 30 minutes will be loaded over an 8 hour period for about 32 trucks per day. dFSEIS, p. 136. Loading racks contain components that leak VOCs, including adapters, hoses, fittings, valves, and couplings used to facilitate transfer of LPG from one container to another and that is disconnected following transfer.¹⁰ The leaks are so well-known that air districts pass regulations specifically to control leaks during loading of LPG.¹¹ Further, VOCs can be emitted when product is loaded into rail cars/tankers or unloaded from rail cars/tankers to the bullet tanks by displacing vapors in the receiving vessel. These vapors could be emitted to atmosphere, unless the loading racks are equipped with a vapor balance system that captures and transfers displaced vapors to a flare for combustion or for recovery and reuse as product. VOCs can also be released when loading arms are disconnected after loading and from any leaks and drips.

Locomotives: Trains will import/export product and move around tank cars on site, estimated at 2 hrs/day. DSEIS, pp. 111, 125. Locomotives burn diesel which releases large amounts of NO_x, VOCs, CO, SO₂, PM/PM₁₀/PM_{2.5}, and CO_{2e}.

Trucks: A maximum of four trucks per hour will export product from the Facility, primarily in the winter. dFSEIS, pp. 135-53. Presumably, these are tanker

⁹ See, e.g., Blowdown Protocol for Pipeline Systems, available at: <http://www.pacificcarbontrust.com/assets/Uploads/Protocols/Blowdown-ProtocolApr-14.pdf>

¹⁰ See, e.g., URS, Measurement of VOC Emissions from Pressurized Railcar Loading Arm Fittings, Prepared for Houston Advanced Research Center, July 31, 2006, available at: <http://files.harc.edu/Projects/AirQuality/Projects/H051A/H51AExecutiveSummary.pdf>; see also photographs of connectors and valves on top of a LPG tank car at: <http://www.marcellus-shale.us/propane-trains.htm>

¹¹ See South Coast Air Quality Management District Rule 1177: Liquefied Petroleum Gas Transfer and Dispensing, (adopted June 1, 2012).

trucks. Trucks burn fuel which releases NO_x, VOCs, CO, SO₂, PM/PM₁₀/PM_{2.5}, and CO_{2e}.

Brine Separator: Brine withdrawn from the storage caverns will contain entrained hydrocarbons, which must be separated. DSEIS, p. 151. All brine will be circulated through a separator to remove LPG. DSEIS, p. 9. The separated vapors are then sent to the flare for disposal. DSEIS, p. 151. It is unclear how the brine separator described in the DSEIS relates to the molecular sieve dryer and butane separator described elsewhere. The design of the brine separator was not disclosed. However, it may contain fugitive components, such as connectors and valves, which would leak VOCs.

Molecular Sieve Dryer: As the propane and butane are in contact with brine in the caverns, the facility will include equipment to separate them. Propane is separated from brine using a molecular sieve dryer. This device removes entrained water from the propane as it comes out of the wells. DSEIS, p. 33; dFSEIS, p. 33. It includes regeneration equipment consisting of a remote heater, heat exchangers, and process control system. QRA, p. 2-3. The dryer is presumably fuel fired as the DSEIS and dFSEIS do not describe it as electrically driven. However, the record fails to state the fuel it would use or its firing rate in MMBtu/hr, so emissions cannot be estimated. If fuel fired, it would emit NO_x, VOCs, CO, SO₂, CO_{2e}, and PM/PM₁₀/PM_{2.5}.

Butane Separation Vessel: As the propane and butane are in contact with brine in the caverns, the facility will include equipment to separate them. Butane is separated from brine using a separation vessel. The disposition of separated vapors is not discussed, but would ordinarily be vented to atmosphere through various tank fitting, or routed to a flare for combustion. Either option would release emissions. QRA, p. 2-3.

Flare: A 2-ft. diameter flare will be used to combust the LPG vapors separated from the brine at the separator. DSEIS, pp. 9-10. When LPG is injected into the storage cavern, brine is displaced up the brine tubing from the bottom of the well. When the brine reaches the surface, it goes through well head piping up to the pond. The main line from the well is connected to the flare tower pipe, below the top of the pipe, but above the top of the pond dike. The brine from the storage well free falls to the level in the pipe, and if there is any LPG in the brine, it drops out and rises to the top of the flare tower, where there is a pilot burning, and is ignited. *See* dFSEIS, pp. 25-27, 154-56. The dFSEIS asserts that the flare will burn off all entrained hydrocarbons, but this is not supported nor is it likely.¹² dFSEIS, p. 69. Traces will remain and will be emitted from the pond surface as VOCs. The flare and its pilot will emit NO_x, VOCs, CO, SO₂, PM/PM₁₀/PM_{2.5}, and CO_{2e}.

Fugitives: The pipelines and wellheads as well as the unloading racks and tanks will be equipped with numerous components that routinely leak VOCs, including valves, connectors, fittings, flanges, seals, pumps, compressors, and wellhead casings. DSEIS, p.

¹² *See* Letter from Kevin Bernstein, Bond Schoeneck & King, to David Bimber, NYDEC (Jan. 20, 2012) (discussing flare).

165. Some of these are tabulated in the QRA, Table 4-4. The plant area, for example, includes piping headers and valving to facilitate the movement of both products into and out of the caverns. QRA, p. 2-3.

Relief and Vent Systems: The system will be equipped with relief and vent systems. DSEIS, p. 160. These will emit VOCs when emergencies require venting.

PLC System: This system automatically injects mercaptans into trucks or rail cars to odorize product. dFSEIS, p. 28. No details are provided, but this system likely will include a tank, pump, valves, and various connectors, all of which may leak highly odiferous mercaptan gases. This could result in malodors in the vicinity of the loading racks.

Construction: Project construction is estimated to last 6 months and generate 50 construction jobs. DSEIS, pp. 125, 175. Construction of the ponds is estimated to disturb 21.4 acres. dFSEIS, pp. 4-5. Construction will result in emissions from site grading, excavation, trenching, pile driving, filling, delivery vehicles, fugitive wind-blown dust, and tailpipe emissions from all construction equipment. Emissions will include: NO_x, VOC, CO, SO₂, PM/PM₁₀/PM_{2.5}, and CO_{2e}.¹³

Worker Commuting: The project will generate 8 to 10 permanent full-time jobs. DSEIS, p. 175. Roundtrip vehicle trips will release combustion emissions (NO_x, VOC, CO, SO₂, PM/PM₁₀/PM_{2.5}, and CO_{2e}).

Salt Production: The capacity of the proposed brine ponds is not adequate to store the brine that would be removed from the salt caverns. Thus, it is possible that some of the brine will be routed elsewhere, perhaps to the adjacent US Salt plant.¹⁴ This would increase emissions from the receiving facility as any LPG entrained in the brine could be emitted as VOCs. Further, depending on the end-use of the missing brine, combustion emissions could also result from its use/disposal.

¹³ See, e.g., Arlington Storage Company LLC, Response to May 14, 2013 FERC Environmental Data Request, Responses to Requests 17 and 18, Attachment 15-1 (June 3, 2013) (estimating construction emissions from the Seneca Lake Gallery 2 Expansion Project).

¹⁴ The capacity of the East and West Ponds combined is 1,171,000 barrels of brine. dFSEIS, pp. 5-6. The storage capacity of the salt caverns for LPG is 2,100,000 barrels. dFSEIS, p. 121 & Attach. 10. Thus, there is a shortfall in brine storage capacity of 929,000 barrels. The original storage capacity of the brine pond was 2,190,000 barrels, or sufficient to contain all of the displaced brine plus a margin. dFSEIS, p. 5. Further, the dFSEIS, p. 3 indicates that the "brine storage ponds . . . will store a significant portion of the brine displaced from the caverns." Thus, the two proposed brine storage ponds do not have sufficient capacity to store all of the brine that would be displaced from the salt caverns. This raises the question of what will happen to the brine that cannot be accommodated in the ponds. An adjacent project by the parent company appears to be considering using displaced brine to make salt. They explained to FERC, in the Seneca Lake Gallery 2 Expansion Project, that "[t]he collocation of the Seneca Lake Storage Facility with the US Salt production facility provides a unique opportunity to dispose of brine provided through storage cavern development." Arlington Storage Company LLC, Response to May 14, 2013 FERC Environmental Data Request, Responses to Request 24, p. 54 (June 3, 2013). If the brine that is not stored at the two proposed ponds is used to make salt or otherwise used, any emissions from these uses must be included in a cumulative air quality impact analysis.

Cumulative Projects: The impact of the Project plus other nearby existing and proposed facilities must be considered. The DSEIS and dFSEIS do not contain a cumulative air quality impact analysis. There are several nearby natural gas storage facilities. Further, Arlington Storage Company, LLC is proposing to expand a nearby natural gas storage facility, the Gallery 2 Expansion Project, which will include four compressor/engines, two dehydration tower trains, one glycol reboiler, one fuel gas heater, one oxidizer, and one emergency generator.¹⁵ This plus existing nearby gas storage projects coupled with the proposed LPG project will likely result in significant cumulative air quality impacts.

In spite of these numerous sources of emissions, the DSEIS and dFSEIS assert with no proof or analysis whatsoever that there will be no air quality or public health impacts. These assertions are wrong. While the emissions from these sources can be mitigated, if properly identified and quantified, absent dFSEIS mitigation requirements and air facility registration certificate restrictions, the applicant can construct the facility with no controls at all, which would likely result in significant impacts. Examples follow.

First, the dFSEIS dismisses air pollution due to increased traffic without any analysis whatsoever, claiming trucks “must comply with all applicable state and federal emissions regulations.” dFSEIS, p. 193. The specific regulations relied on in this statement are not identified. However, the ones that I am aware of -- a heavy duty vehicle idling prohibition (6 NYCRR 217-3),¹⁶ a heavy duty diesel vehicle inspection program (6 NYCRR 217-5),¹⁷ and fuel sulfur limitations (6 NYCCRR 225-1)¹⁸ -- do not mitigate air quality impacts from tanker truck traffic.

Tanker truck engines that comply with these regulations still emit significant amounts of NO_x, CO, VOCs, PM/PM₁₀/PM_{2.5}, CO_{2e}, and diesel particulate matter. Idling, for example, while regulated, contributes only a very small amount to total truck emissions, less than 5%, so eliminating idling does not mitigate truck engine emissions. Most emissions from tanker trucks are running emissions, round-trip travel from the plant site to market.

Second, the dFSEIS asserts that “increase in truck traffic ...will be negligible and will not impact air quality.” dFSEIS, p. 194. This is inconsistent with my experience. Mobile sources are exempt from state and federal air quality regulations and are only addressed and mitigated in environmental reviews such as the DSEIS and dFSEIS, which failed to evaluate them.

¹⁵ NYSDEC, Air Facility Registration Certificate, Arlington Storage Company LLC, Seneca Lake Storage Project (Feb. 7, 2013).

¹⁶ <http://www.dec.ny.gov/regs/4256.html>

¹⁷ <http://www.dec.ny.gov/regs/4254.html>

¹⁸ <http://www.dec.ny.gov/regs/4225.html>

Third, very high concentrations of NO₂ are present in the exhaust emissions from diesel train engines that would be used to import and export product. Responses to FERC data requests in the Arlington case wrongly assert that the instant Finger Lakes Project would not increase train traffic as the LPG arrives “via the existing train schedules and no new train traffic will be added.”¹⁹ This is irrelevant because, for example, the added rail cars carrying product increase the weight that must be moved, which increases locomotive engine load, which increases emissions. The dFSEIS at page 140 notes, for example, that there will be an increase in rail cars pulled by the train. Further, the locomotives that import and export the LPG would be used on-site to move the cars around. DSEIS, pp. 111, 125. This on-site activity would not occur, but for the LPG project. Emissions from this on-site activity are significant. Based on my work at other rail loading terminals, these NO₂ emissions are routinely high enough to exceed the federal 1-hour NO₂ standard. Ambient air quality impacts from rail access were not considered in the GEIS, DSEIS, or dFSEIS. These emissions can and must be mitigated, for example by using an electronic positioning system,²⁰ rather than using the locomotive engine to move tank cars around in the facility. DSEIS, pp. 111, 125.

Fourth, the GEIS, DSEIS, and dFSEIS failed to consider the composition of the exhaust from tanker trucks, train engines, and construction equipment. They all contain potent carcinogens that have no safe threshold. Very high concentrations of diesel particulate matter, a potent carcinogen, are emitted in large amounts by the types of trucks and locomotives that will service the site. Based on ambient monitoring and modeling work that I have done for other similar projects, residents along the truck routes and near the loading facilities may be exposed to high concentrations of these carcinogens, resulting in potentially significant public health impacts that were not considered in the environmental review. Thus, the failure to evaluate mobile source emissions is an egregious omission.

The emissions from mobile sources can and must be mitigated. Mitigation is routinely required for these emissions at a project of this size. These significant emissions (from not only tanker trucks, but also construction equipment, delivery trucks, and worker commutes) are generally controlled by requiring mitigation such as:

- the use of engines that meet the most current EPA regulations;
- use of exhaust controls such as diesel particulate traps and NO_x controls (SCR);
- use of a dedicated truck fleet owned and operated by a single purveyor;
- use of a hybrid-powered, natural gas- or electric-powered truck fleet. Any truck not thus equipped must use biodiesel, other alternative or low emission fuels, and implement a mandatory tire check/tire inflation program.

¹⁹ Arlington Storage Company, LLC, Responses to May 14, 2013 FERC Environmental Information Request, Response to Request 20, p. 42 (June 3, 2013).

²⁰ See, e.g., , Oregon Department of Environmental Quality, Standard Air Contaminant Discharge Permit, Coyote Island Terminal, LLC, p. 3, Condition 1.1.a (July 24, 2012) (describing an electric powered positioning system for maneuvering railcars through the Railcar Unloading Building).

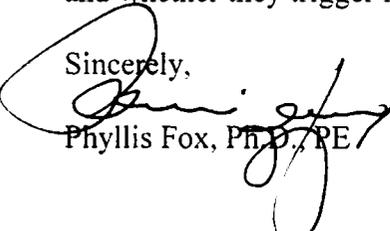
Finally, all of the above-listed emission sources will release volatile organic compounds or VOCs. The combustion sources (flare, dryer, generator, fire safety pump) will additionally release NOx. Schuyler County, New York, where the Project is located, is currently designated by the U.S. EPA as a moderate nonattainment area for ozone. This means that the air in the area currently violates national ambient air quality standards for ozone, which are established to protect public health. NOx and VOCs emitted by the Project are both regulated precursors to ozone formation. If emissions of NOx equal or exceed 100 ton/yr or emissions of VOCs equal or exceed 50 ton/yr, the Project is subject to Nonattainment New Source Review (NNSR) requirements, which requires that it obtain a NNSR permit.

The GEIS, DSEIS, and dFSEIS are silent on this requirement. They do not contain any estimate of NOx and VOC emissions from the Project, nor any of the information required to make such an estimate (e.g., firing rates of combustion sources, number and types of fittings, design of the loading racks and tanks). Uncontrolled loading/unloading operations can emit significant amounts of VOCs, enough to classify this facility as a major source for NNSR, requiring that a NNSR permit be obtained. Loading racks are normally vented to combustion devices such as flares or designed with a closed vapor balance system. No controls are mentioned in the DSEIS or dFSEIS. Based on my experience, in my opinion, the emissions of VOCs from this Project could exceed 50 ton/yr unless controls are required, such as closed vapor balance systems for the loading racks and low-leak or no-leak fugitive components (valves, connectors, compressor seal systems, etc.). The record does not identify any controls, leaving the applicant free to build the Project with none of the controls that would be routinely required to operate such a large project if it went through NNSR review.

The Clean Air Act prohibits construction of a new facility such as this one unless the applicant demonstrates "that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of," *inter alia*, any "national ambient air quality standard [NAAQS] in any air quality control region." 42 U.S.C. § 7475(a)(3). This demonstration must encompass both direct emissions from the facility itself as well as "any air quality impacts projected for the area as a result of growth associated with [the] facility." 42 U.S.C. § 7475(a)(6).

Thus, the Project cannot be constructed unless and until New York determines that the LPG facility will not contribute to a violation of any NAAQS and will therefore comply with the State Implementation Plan provision requiring NAAQS compliance. The first step in this determination, the estimation of VOC and NOx emissions, has not occurred. The DSEIS and dFSEIS are silent as to emissions of these ozone precursors and whether they trigger NNSR review or other significant air quality impacts.

Sincerely,


Phyllis Fox, Ph.D., PE