PUBLIC VERSION

New York State Department of Environmental Conservation

In the Matter of the Application of

FINGER LAKES LPG STORAGE, LLC

Application Number 8-4432-00085

for a permit pursuant to the Environmental Conservation Law to construct and operate a new underground liquid petroleum gas storage facility in the Town of Reading, Schuyler County.

GAS FREE SENECA'S SUR-REPLY BRIEF

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Administrative Decisions

Other Authorities

PRELIMINARY STATEMENT

Petitioner Gas Free Seneca ("GFS") respectfully submits this Sur-Reply pursuant to the August 26, 2015, decision of Chief Administrative Law Judge ("ALJ") James T. McClymonds. The decision authorized petitioners to respond to new evidence in affidavits submitted with the response briefs of Finger Lakes LPG, LLC ("FLLPG" or the "Applicant") and the New York State Department of Environmental Conservation ("DEC" or the "Department") on May 29, 2015. The affidavit of Barry Moon, submitted by FLLPG, and the affidavit of Eric Rodriguez, submitted by DEC, are addressed exclusively to claims made by Seneca Lake Pure Water Association. GFS therefore responds here only to three affidavits submitted by DEC: (1) Affidavit of Peter S. Briggs in Support of DEC Staff Reply Brief, sworn to on May 29, 2015 ("Briggs Aff."); (2) Affidavit of Linda S. Collart in Support of DEC Staff Reply Brief, sworn to on May 29, 2015 ("Collart Aff."); and (3) Affidavit of Paul M. Giachetti in Support of DEC Staff Reply Brief, sworn to on May 29, 2015 ("Giachetti Aff.").

The testimony in those affidavits fails to rebut GFS's offer of proof. The affiants do not respond to several of GFS's key allegations regarding cavern integrity, public safety, and water quality, and when the affiants do respond, they tend to offer conclusions without analysis. Most troubling, the late-filed affidavits rely upon evidence that is not part of the record and has not otherwise been made available to the petitioners. Without an adjudicatory hearing, GFS and its experts cannot scrutinize those documents or contest the eleventh-hour claims made in reliance upon them. For all of those reasons, GFS has carried its burden of proving the need for an adjudicatory hearing on the disputed substantive and substantial issues raised in its petition.

ARGUMENT

I. There Are Unresolved Factual Questions about Cavern Integrity That Require Adjudication.

Mr. Briggs' new testimony fails to resolve three key factual disputes about the suitability of the FLLPG galleries for liquid petroleum gas ("LPG") storage. First, it is not clear whether the Draft Permit allows storage in Cavern 33, and, if it does so, how risks presented by that cavern to the integrity of Gallery 1 will be addressed. Second, Mr. Briggs fails to rebut cavern integrity issues raised by the visibly sagging roof of Gallery 2. Finally, although he explains why accurate understanding of the rubble pile may not be needed to prevent violation of maximum storage limits, he fails to allay other cavern integrity concerns presented by incomplete and misleading information about the extent of the rubble layer, including the likely violation of maximum cavern span limits. Each of these unresolved disputes should be the subject of an adjudicatory hearing.

A. Questions Remain about the Permissible Locations of Storage in Gallery 1 and the Risks of Potential Storage in Cavern 33.

[redacted] In defense of this position, he relies on the following statement:

> Additional storage wells and monitoring wells may be permitted by the Department and drilled into either gallery subsequent to the issuance of this permit without affecting the allowable maximum capacities and maximum product capacities, provided product storage is limited as described above and the ultimate gallery dimensions due to the operation of any such wells does not cause an exceedance of the ultimate cavern dimensions shown on the storage map dated August 28, 2014.

Draft Permit, Att. 2, n. 3.[1] [redacted]

[redacted] The permissible locations of LPG storage therefore are in dispute.

That dispute might be resolved by interpreting [redacted]

But interpreting the ultimate cavern dimensions in that way simply creates new problems.

First, [redacted]

[1] [redacted] "As approved by the Department, the Permittee must maintain a hydrocarbon and/or nitrogen blanket in Gallery 1 at FL1 and any future replacement well for Well 33 . . . ." Draft Permit, Att. 2, n. 4. The fact that Well 33 may be replaced does not imply that Cavern 33 may be used for LPG storage. Well 44 is being replaced with Well FL2, although product storage in Cavern 44 is prohibited; the new well will be used to monitor potential leaks from Cavern 34. Any new well that might be drilled into Cavern 33 also could be a monitoring well.

[2] GFS has explained in detail the inadequacies of the drawings, *see* Clark Report at 10, 12–14, 19, 22–24, which not only will delay response to any problems in the future but also create incoherence in the draft permit.

[3] [redacted]

[redacted] so the Draft Permit is being violated even before LPG storage begins. Second, it remains unclear how cavern expansion laterally into the salt bed as a result of operational solutioning will be confined to the extent of the most recent sonar, especially if no one is even looking at cavern growth for 10 years at a stretch. [redacted] The terms of the Draft Permit not only will be violated the minute that Cavern 44 expands to the north, but also the northward growth will narrow the pillar between Gallery 1 and the leaking Gallery 10, creating new cavern integrity risks.

Figure 1: Potential Lateral Expansion of Caverns 34 and 44

[4] Figure 1 is an annotated excerpt from Cross-Section BB', which is in the record.

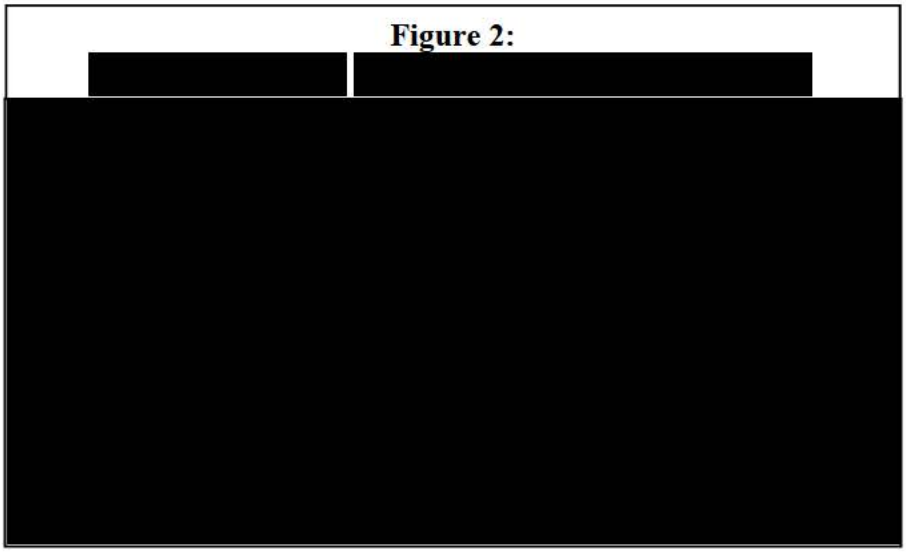
Mr. Briggs raises additional unresolved cavern integrity questions with his assertion that DEC proposes to permit LPG storage in Cavern 33 at some undefined point in the future. First, he fails to address the risk presented by the connectivity of that cavern with the rest of Gallery 1. The Storage Map shows [redacted]. FLLPG's expert, Mr. Istvan, admits that the caverns "are all fracture connected" through the rubble piles, Memorandum from John Istvan to Chief ALJ McClymonds, dated Feb. 9, 2015, at 10, as was revealed in the historical record, *see* GFS Petition, Ex. 1 ("Clark Report") at 11, 25. [redacted] leaving an unaddressed risk that product injected into Cavern 33 may leak into Cavern 43, which unquestionably is *not* available for storage.[5] [redacted] If Cavern 33 is slated for storage, an adjudicatory hearing should be held to resolve the extent of the cavern integrity risk it presents.

[redacted]

B. The Integrity of Gallery 2 Remains in Dispute.

GFS has argued that sonar surveys of Gallery 2 over recent years, which document a visibly sagging roof, should be taken seriously as a looming threat to the gallery's integrity.

Figure 2:



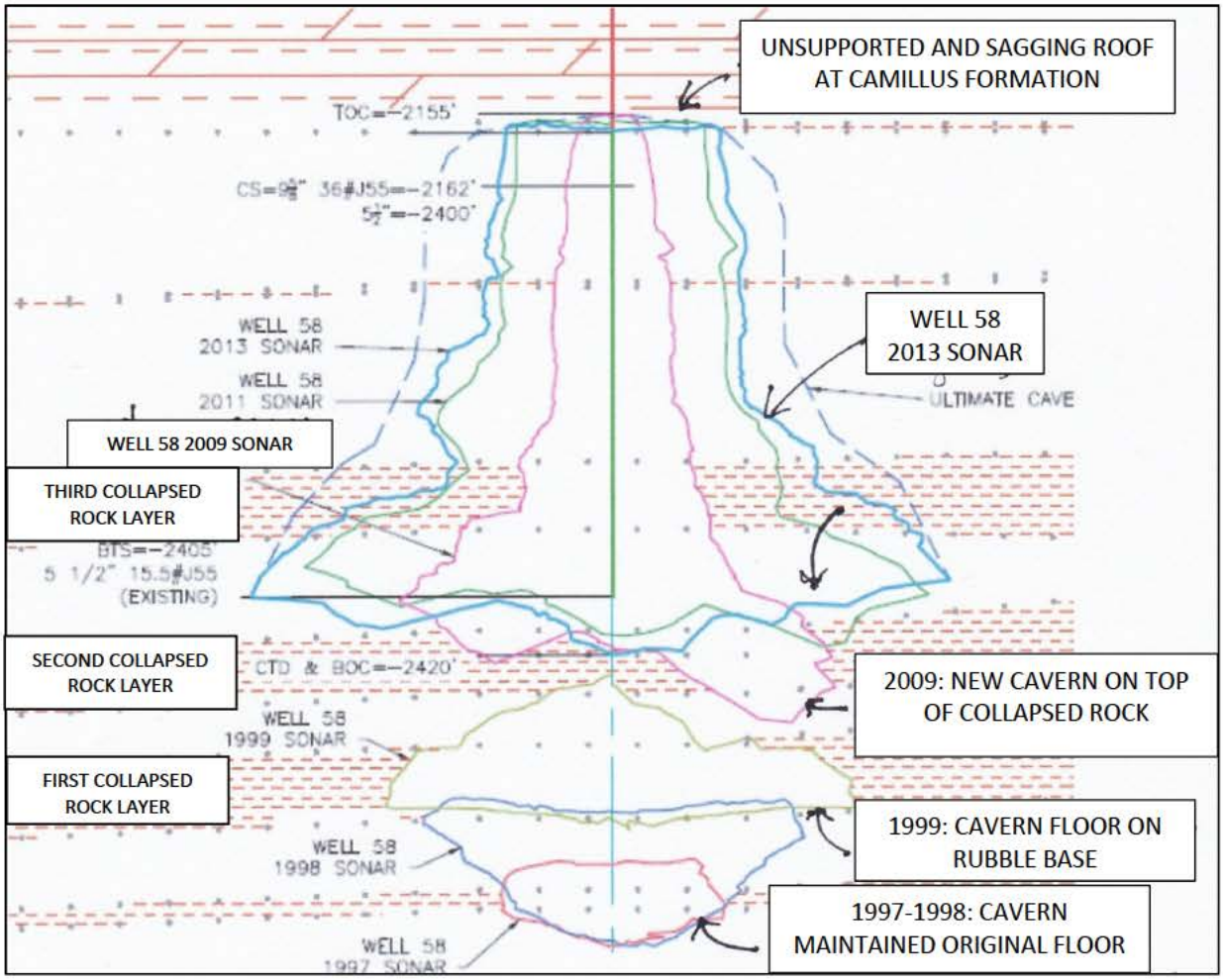
Mr. Briggs does not rebut that evidence, which is clear to the naked eye [redacted].[6] The arguments he does offer—including newly raised arguments relying on extra-record evidence—fail to resolve key disputed facts about the long-term stability of Cavern 58, which should be resolved at an adjudicatory hearing.

[redacted] there is abundant record evidence that rock fell suddenly and repeatedly from its walls and ceiling. As can be seen in Figure 3 on the following page, the rock roof of the cavity shown in the 1998 sonar collapsed, with the top of the resulting

[6] Figure 2 is an excerpt from the Clark Report, Fig. 8, which is in the record. [redacted]. The two-year schedule of sonar surveys in 2009, 2011, and 2013 raises the question whether a survey has been performed this year. If so, it has not been disclosed to GFS. If not, a new sonar survey might well shed light on the current factual dispute.

rubble pile forming the floor of the cavity shown in the 1999 sonar. *See* Clark Report, Ex. E (demonstrating DEC's understanding that "the older cavity of October 1998 had been nearly filled with shale and salt rubble in the sho[r]t period between earlier sonar surveys"). Thereafter, the layer of rock that formed the ceiling of the cavern shown in the 1999 sonar also collapsed,

Figure 3: Cavern 58 Roof Collapse History
(Annotated Excerpt from Cross-Section AA')



very likely producing the rubble that prevented Mr. Larry Sevenker from obtaining a sonar survey in 2001. A third layer of rock, which would have formed the roof of the cavern when solutioning began through the current tubing string, collapsed to permit salt dissolution all the

way to the Camillus formation as early as 2009. No other explanation accounts for the rubble-filled portion of the cavern, [redacted]

The documented, but nevertheless disputed, history of collapse in Cavern 58 raises questions about its long-term integrity, because its current roof has reached the Camillus formation, and the rock there already is sagging. Although the FLLPG caverns have been described as cavities in bedded salt, *see* Final DSEIS Text (Document List IV.A.1) at 148, Gallery 2 extends upward beyond the salt, and whether the unsupported Camillus formation safely can serve as the new roof and part of the cavern walls, when the current roof yields to the force of gravity, is a disputed question of fact.[8] *Id.* [redacted] That evidence, together with FLLPG's admission [redacted]

[7] Mr. Sevenker's letter of January 15, 2013, [redacted] is consistent with this reconstruction of events. In 2013, US Salt provided him with two recent sonars, but it is not clear whether he knew that the cavity depicted in them *was located closer to the surface than the one he had attempted to survey in 2001*. To the contrary, he appears to have questioned his prior analysis because he believed that recent sonars showed "a completely different profile of the cavern" he had attempted to survey in 2001. In fact, he was correct about the roof collapse in 2001, and the two recent sonars depict a cavity resting on the resulting rubble (and rubble from a subsequent collapse).

[8] The pull of gravity can be exacerbated by seismic activity, which has been documented at the facility site. US Salt delivered to DEC the "seismic local log that Mr. Sevenker obtained indicating small earthquake activity" that may have been responsible for the rock fall he discovered. Clark Report, Ex. E (Memorandum from US Salt to DEC, dated May 24, 2001). The seismic log proving the existence of earthquake activity in the vicinity of Cavern 58 has not been produced for this proceeding or in response to Freedom of Information Law requests. The record also reveals that "[a] protective pad in the roof of the cavity would not have stopped the rubble in the fault zone from filling the cavity." *Id.* (report on Well 58, date-stamped Feb. 13, 2001). As GFS has argued previously, *see* GFS Response Br. at 14–15 (filed May 29, 2015), a hydrocarbon blanket cannot save an unsupported and unstable cavern roof—whether it is sagging rock or faulted shale—from the inexorable pull of gravity. A history of earthquake activity only increases the threat.

[redacted] more than satisfies GFS's burden of showing unaddressed risks to the integrity of Cavern 58.

[redacted]

The testing invoked by Mr. Briggs, *see* Briggs Aff. ¶¶ 18–22, cannot establish the integrity of Gallery 2 over its proposed 50-year life. Pressure tests of Cavern 58 cannot demonstrate long-term stability in the face of visibly looming roof fall, which will result in a very different storage cavern. Moreover, the cement bond logs and casing inspection cited by Mr. Briggs, *see id.* ¶¶ 20–21, are red herrings.[10] The Gallery 2 roof can fall, even if its injection well is perfectly cased and cemented, because roof collapse is simply a function of the exercise of gravity in the absence of a supporting layer of salt—a phenomenon we have seen repeatedly in

[9] [redacted]

[10] Cement bond logs assess the quality of the cement and the bond it establishes between the casing and wellbore, while casing inspections evaluate the integrity of the pipe in the well. Neither addresses the integrity of the cavern structure.

Cavern 58. Requiring a sonar survey every decade to identify changes that can occur within a year offers inadequate notice of potentially serious cavern integrity problems.

Finally, Mr. Briggs cannot rebut GFS's offer of proof by invoking alleged facts about the Savona LPG and Harford Mills LPG storage facilities that are not supported by the administrative record. *See* Briggs Aff. ¶¶ 8–9, 14. The claim that "some" of the caverns at those facilities "rely on the Camillus to form all or part of the storage caverns' roofs," *id.* ¶ 9, both is undocumented and says nothing about the extent or condition of the roofs, as compared with the visibly sagging roof of Cavern 58. Moreover, his statement that he is "*not aware* of any incidents at these facilities related to the migration of LPG through the Camillus," *id.* ¶ 9 (emphasis added), is consistent with a mere failure to investigate. We simply do not know on the current record whether any of the caverns at those sites were shut down for roof failure. If DEC now proposes to rely on storage history at Savona and Harford Mills to rebut GFS's evidence that the Camillus formation is unsuitable as caprock at the FLLPG facility, then GFS should have an opportunity to review any underlying documents that support Mr. Briggs' eleventh-hour allegations and to cross-examine him at an adjudicatory hearing.

C. Incomplete and Misleading Information about the Full Gallery System Makes It Impossible to Ensure Cavern Integrity.

To address GFS's request for additional information about the rubble pile, [redacted] The record shows that the rubble in both galleries extends from the original total depth of cavern solutioning (at the Vernon formation) to the bottom of the cavities depicted in the most recent sonar survey, [redacted].,

even though the cross sections show something else entirely.[11] Mr. Briggs also "now" claims to know that "the east-west extent of the rubble below the existing top of rubble does not extend beyond the maximum cavern spans derived from the most recent sonar surveys," *see id.* ¶32, but he offers no coherent analysis of the basis for that conclusion and therefore cannot rebut GFS's claim that extent is unknown. *See Matter of Metro Recycling & Crushing, Inc.*, Decision of the Acting Commissioner, 2005 WL 958139, *3 (DEC, Apr. 21, 2005) (requiring that rebuttal be supported by "the application, its supporting documents, the analysis of Department staff, [or] responses provided by [the] applicant"). Moreover, he does not even pretend to know the north-south extent of the rubble, [redacted] A simple seismic study could provide the necessary information.

Contrary to Mr. Briggs' contention, an accurate understanding and depiction of the full gallery system is important for a number of reasons. First, even without full understanding of the areal extent of the rubble, it nevertheless is clear that the rubble accounts for the vast majority of the Gallery 1 system. [redacted]. DEC and FLLPG rely heavily on the FEA to establish cavern integrity. Because the FEA is based on misinformation, it cannot reliably predict long-term behavior of either the caverns or the pillar between Gallery 1 and the leaking Gallery 10.

Second, Mr. Briggs assumes the rubble pile will remain filled with brine, and that the brine in the rubble will remain fully saturated throughout the 50-year life of the galleries. On

[11] The cross-sections show layers of rock and salt where they should be showing rubble. Because the first Draft Permit condition requires that all construction and operation of the Project conform to the "plans and specifications" in the application, as subsequently revised, the storage map and cross sections should be revised to reflect accurate information.

that basis, he contends that all storage for the FLLPG project will remain above the rubble and that there is no risk of unintended solutioning at the level of the rubble. Fully saturated brine precipitates salt, however, leaving less than fully saturated brine for at least some period. If the brine in the rubble is not fully saturated at any point, there likely will be new dissolution at the level of the rubble. The areal extent of the current rubble needs to be delineated as a baseline, so potential lateral expansion with implications for cavern integrity (such as narrowing of the pillar between galleries) can be tracked.

Third, the rubble houses [redacted], which could not exist if there were no possibility of movement there. The Gallery 1 monitoring system depends upon assumptions about that connectivity, which remain contested issues of fact. Those disputes cannot be resolved without a better understanding of the rubble. Unless the connections are accurately known, there can be no assurance that the monitoring system will work.

II. An Adjudicatory Hearing Should Be Held to Resolve Disputed Public Safety Issues.

Mr. Briggs erroneously argues that the public safety impacts of the proposed facility do not require additional inquiry. *See* Briggs Aff. ¶¶ 33–44. Mr. Briggs claims that the Project is different from the hydrocarbon storage facilities discussed in Dr. Mackenzie's risk assessment and thereby attempts to discredit any reference to historic accidents at those salt caverns. *Id.* At the same time, however, Mr. Briggs attempts to show that the Project will be safe by contrasting it with the Yaggy facility, where a massive explosion occurred after a salt cavern storage facility leaked natural gas into a neighboring community. *Id.* Mr. Briggs cannot have it both ways. His affidavit also demonstrates a profound lack of understanding of how quantitative risk assessments are conducted and why historic incidents at similar, although not identical, facilities should be used to evaluate the potential risk posed by the Project.

Mr. Briggs fails to acknowledge that a systematic study of all known serious incidents at other hydrocarbon storage facilities is a well-recognized tool for quantifying Project risk.[12] Dr. Mackenzie's report analyzed a wide range of serious incidents—rather than the single incident on which Mr. Briggs seizes—to illustrate the risks posed by storing both natural gas and propane in salt caverns. Dr. Mackenzie's assessment included incidents involving both natural gas and propane because the underlying hazards and infrastructure of those storage facilities are very similar. In addition, the purpose of Dr. Mackenzie's analysis of past incidents, such as the one that occurred at the Yaggy facility, is not, as Mr. Briggs states, to "analyze and predict the likelihood of a problem" at the Project, Briggs Aff. ¶ 34, but rather to illustrate the reasons why storing hazardous substances in horizontal bedded salt caverns, in the aggregate, has been riskier than storage in salt dome caverns with no rock layers. This approach is used by most other experts in the risk assessment field, including the authorities cited in Dr. Mackenzie's report.[13] In particular, Yang et al. used the same historical methodology, combined propane and gas facilities, and came to very similar quantitative conclusions as Dr. Mackenzie about the extent of risk.[14]

Mr. Briggs' comparison of the Project to the Yaggy facility does not rebut Dr. Mackenzie's opinion that the Project's safety impacts must be evaluated further. Mr. Briggs focuses solely on the differences and ignores important similarities between these two facilities. In particular, Mr. Briggs does not acknowledge that both sets of caverns are located in bedded

[12] *See, e.g.*, ISO/IEC, ISO 17776, *Petroleum and natural gas industries — Offshore production installations — Guidelines on tools and techniques for hazard identification and risk assessment* 27 (2000).

[13] *See, e.g.*, D. J. Evans, British Geological Survey, *An appraisal of underground gas storage technologies and incidents, for the development of risk assessment methodology* (2008); European Union Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances, 1997 O.J. (L 10) 13; John K. Warren, *Evaporites: sediments, resources and hydrocarbons* (2006); Chunhe Yang et al., *Analysis of major risks associated with hydrocarbon storage caverns in bedded salt rock*, 113 Reliability Engineering & System Safety 94 (2013).

[14] Chunhe Yang et al., *supra* note 13.

salt formations, that the salt layers at Yaggy were inadequate to seal the caverns, and that there is similar concern about the integrity of the Project caverns. In addition, both areas contain some degree of faulting. Rather than address these similarities, Mr. Briggs assumes without support that conditions in the Draft Permit "will prevent a reoccurrence of similarly-caused incidents." *See* Briggs Aff. ¶ 33. Specifically, Mr. Briggs has not rebutted the following analysis from Dr. Mackenzie's report:

> From the risk assessment perspective it is enough to recall that standard and additional regulatory recommendations, routine mechanical integrity testing, and every other careful industry precaution have failed to prevent the twenty recent serious or extremely serious salt cavern incidents in the United States. Some have been quite recent, and some have occurred in caverns with fairly long safety track records before the accidents. The available literature provides no good reason to assume that regulation, testing, or oversight in today's resource-constrained environment will be more successful in preventing such incidents tomorrow than it was in preventing them yesterday.

Mackenzie Report at 11.

The new facts alleged in Mr. Briggs' affidavit therefore do not rebut the expert opinion provided by Dr. Mackenzie. Dr. Mackenzie's report identifies grave public safety risks that have not been sufficiently evaluated in the record. The safety of the Seneca Lake community therefore is a substantive and significant issue that must be adjudicated.

III. Water Quality Risks to Seneca Lake Should Be Adjudicated.

The affidavits submitted in support of DEC's response brief do not refute GFS's expert testimony that the storage of LPG in caverns on FLLPG's property is a likely explanation for a late 1960s spike in the salinity of Seneca Lake. The allegations in DEC's affidavits are based on materials that are not in the record, raise claims that GFS already has refuted in previous submissions, and are unsupported by meaningful explanation or analysis. The opinions of Linda Collart and Paul Giachetti, the DEC staff whose affidavits address the potential salinization of

the Lake, do not rebut GFS's contention that the potential impacts of LPG storage on the water quality of Seneca Lake is a substantive and significant issue.

Ms. Collart concludes that storing LPG in salt caverns on FLLPG's property did not cause a 50 percent increase in Seneca Lake's chloride levels in the 1960s, citing her review of "existing records of the DEC Region 8 Division of Water." Collart Aff. ¶ 12. She describes these "records" as relating "to historical discharges and National and State Pollution Discharge Elimination System…permitting for the two solution salt mines on Seneca Lake and files maintained by the Region 8 DEC Mined Land Reclamation program for the Morton Salt Himrod Mine." *Id.* Although DEC has had GFS's petition for full party status since January 2015, the Department submitted only a small sample of these materials at the end of May as attachments to its legal brief. None of the participants in this proceeding or the ALJ has had the opportunity to review the full range of records on which Ms. Collart relied.[15] DEC has not even provided a list of those documents or described the materials in any detail. Because Ms. Collart's statements are not based on evidence in the record, they are insufficient to refute GFS's claim. *See, e.g.*, *Matter of Bonded Concrete, Inc.*, Interim Decision of the Commissioner, 1990 WL 154836, at *2 (DEC, Jun. 4, 1990) ("Offers of proof submitted by a prospective intervenor may be completely rebutted by reference to any of … [the application, its supporting documents, the analysis of the Staff of the agency and any responses provided by the applicant,] alone or in combination.").

Ms. Collart also overstates the significance of the information allegedly contained in the Region 8 records. She assumes that, because the amount of salt being discharged from the ISCO facility (one of the mines on Seneca Lake), was perhaps as high as 162,797 pounds per day,

[15] Similarly, Mr. Giachetti claims to have reviewed data from Mr. Jolly, who previously supplied data on chloride levels in Seneca Lake. Giachetti Aff. ¶¶ 27–29. This data is not part of the record, and there is no way of knowing whether the data Mr. Jolly provided to Mr. Giachetti is the same as that cited in the peer-reviewed works relied upon by Dr. Myers.

discharges from mines on the Lake account for *all* of the chloride spike recorded in the late 1960s. *See id.* ¶¶ 14, 17. Even accepting Ms. Collart's statement that discharges from the mines were "much higher" than previously understood, at a discharge rate of 162,797 pounds per day, the ISCO mine was discharging 59,420,905 pounds per year, or approximately 26,952,900 kilograms—a far cry from the 155,000,000 kilogram total chloride load documented by GFS. *See* Myers Report at 9–10.[16] That one mine may have been contributing a slightly greater volume of salt to the Lake than Dr. Myers assumed does not explain the massive spike in chloride in the 1960s; nor does it refute Dr. Myers' opinion that, taken together, discharges from the limited number of mines adjacent to the Lake were insufficient to account for that increase.

Mr. Giachetti offers largely conclusory assertions that demonstrate a misunderstanding of the nature of Dr. Myers' work and even of statements by other DEC staff.[17] For example, Mr. Giachetti's conclusions regarding the poroelasticity and viscoelasticity of salt layers, including that the salt beds are "non-saturated" and therefore "solid," are unsupported by record evidence. Giachetti Aff. ¶¶ 20–21. GFS already has addressed the question of whether the salt beds are saturated. *See* GFS Response Brief at 24–25. In addition, Mr. Giachetti contradicts claims of FLLPG and DEC that the salt in beds surrounding the caverns not only will move to seal any cracks that could allow LPG to migrate from the caverns, but also filled in the entire Jacoby-Dellwig fault. *See* FLLPG Post-Issues Conference Reply Brief at 38; Gowan Report at 9; Briggs

[16] Ms. Collart also claims that the timing of the chloride spike does not coincide with the storage of LPG. *See* Collart Aff. ¶ 22. GFS already has explained why the chloride spike may not have occurred immediately after LPG storage began and may not have lasted through the entire period when LPG storage occurred. *See* GFS Response Brief at 23–24.

[17] Mr. Giachetti also claims that none of the works cited by Dr. Myers prove that LPG storage in the salt caverns at the proposed facility could impact groundwater flow under Seneca Lake. Giachetti Aff. ¶ 17. As GFS explained in its Response Brief, Dr. Myers grounds his opinion in scientific principles and uses peer-reviewed scientific literature to analogize the local conditions around Seneca Lake to similar observed phenomena elsewhere. GFS Response Brief at 22. Given the site-specific nature of the phenomenon Dr. Myers describes, it is not surprising that the peer-reviewed literature he cites specifically discussed the FLLPG site. Moreover, Mr. Giachetti does not even provide a set of basic calculations to support his assertion that "pressure almost 25 times the fracture pressure" would be necessary to cause the deformation that Dr. Myers describes. *See* Giachetti Aff. ¶ 22.

Aff. ¶ 14. DEC cannot have it both ways. The salt layers that form portions of the caverns cannot simultaneously be sufficiently fluid to allow for self-sealing and so solid as to make the concepts of poroelasticity and viscoelasticity "physical impossibilit[ies]." Giachetti Aff. ¶¶ 20, 23.[18]

DEC's affidavits therefore do not rebut the opinion by GFS's expert hydrogeologist that a relatively small pressure signal in the salt beds could cause a surge of groundwater through the salty sediments of Seneca Lake and cause the spike in salinity documented in peer-reviewed literature. GFS thus has established that the risk of contaminating Seneca Lake is a substantive and significant issue that requires adjudication.

[18] Mr. Giachetti is incorrect in asserting that poroelasticity is irrelevant to the proposed project because the salt beds are non-saturated. GFS Response Brief at 24–25. A salt layer under a lake where additional dissolution is not occurring must be saturated with brine at high concentrations or it would dissolve into the lake and cause current salinity levels in Seneca Lake to rise.

CONCLUSION

For the foregoing reasons, and the reasons stated in its prior submissions, GFS's petition for full party status should be granted in its entirety.

Dated: New York, NY
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Respectfully submitted,

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