



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
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OCT 05 2011

David L. Bimber
Deputy Regional Permit Administrator
New York State Department of
Environmental Conservation
Region 8
6274 Avon-Lima Rd. (Rtes. 5 and 20)
Avon, New York 14414-9516

Dear Mr. Bimber:

The U.S. Environmental Protection Agency (EPA) has reviewed the August 2011 draft Supplemental Environmental Impact Statement (DSEIS) that was prepared by the New York State Department of Environmental Conservation (NYSDEC) on the proposed Finger Lakes LPG Storage, LLC (Finger Lakes) Liquid Petroleum Gas (LPG) Storage Facility in the Town of Reading, Schuyler County, New York. The purpose of the DSEIS is to satisfy the requirements of the State Environmental Quality Review Act (SEQRA) for NYSDEC to review and process a permit application for Finger Lakes LPG Storage, LLC to construct a multi-cycle LPG storage system with a major pipeline connection and rail and truck load/unload racks. This DSEIS is a supplement to the NYSDEC's 1992 Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program.

EPA has several comments on the DSEIS:

- 1) **Brine Pond Leak Emergency Procedures:** The DSEIS provided several scenarios whereby it may become necessary to remove some or all of the brine from the planned Finger Lakes brine pond. These scenarios include development of a possible leak of 0.55 gpm or less, development of a possible leak greater than 0.55 gpm and accumulation of precipitation in excess of evaporation resulting in fluid level rise. In each case, the brine level in the brine pond would be lowered by removing brine from the bottom of the pond and delivering it to US Salt's brine pond where it would be used by US Salt in its operations and permanently lost to the LPG storage operation, and/or injection of brine into the LPG storage caverns. In more serious events, it is noted that US Salt could suspend solution mining activities at its facility in order to accommodate larger volumes of Finger Lake's brine. EPA has several questions about these procedures, primarily concerning the speed with which Finger Lakes could partially or totally drain the brine pond to minimize a release.
 - a) There is no discussion of the timeframes for delivery of brine to US Salt and how quickly brine can be transferred through the piping to US Salt's brine pond. In addition, discuss US Salt's capacity to accept brine, e.g., the excess storage volume, if any, typically available in US Salt's brine pond at any particular point in time that could be utilized by

Finger Lakes; how quickly US Salt processes its brine from its brine pond, i.e., how quickly can US Salt free up storage capacity in its pond to accommodate Finger Lakes brine should that become necessary. This should include how quickly US Salt can suspend solution mining activities if necessary.

- b) The DSEIS also indicates that brine could be injected into the storage caverns in an emergency. However, this option is limited to the LPG aboveground storage capacity available at the time because LPG would have to be removed from the caverns and stored to enable the injection of brine.
 - c) The DSEIS indicates that, for smaller leaks, liner inspection and repair would be done when the brine pond level is at its lowest in the spring. Depending on the timing of leak development, this may mean that a leak could go unrepaired for upwards of a year, potentially allowing the leak to worsen.
- 2) **Operational Growth of the Storage Caverns:** the DSEIS states (Page 78) that the expected operational growth of the caverns is expected to be 1-2% per year due to the injection of “slightly” undersaturated brine. It is unclear if all relevant factors have been considered in developing this estimate:
- a) The DSEIS notes that the brine that is injected into the caverns will be obtained from the bottom of the brine storage pond where saturation is expected to be highest. The DSEIS also notes that, in New York, precipitation is greater than evaporation which would result in a drop in saturation levels in the brine pond. Please discuss the expected saturation levels of the brine in the bottom of the pond and whether there will be a minimum salinity, i.e., if saturation levels drop below a certain value, will brine injection cease and more highly saturated brine obtained?
 - b) In the event that a liner leak develops or excessive precipitation raises fluid levels in the brine pond above operational limits, brine will be pumped from the bottom of the brine pond to US Salt’s facility. This operation would remove the brine of highest salt saturation from the LPG storage facility, potentially only leaving brine of lower saturation for injection. Was this scenario considered in evaluating the likely cavern growth rates cited in the DSEIS? Can Finger Lakes obtain saturated brine from US Salt or elsewhere should brine pond saturation levels drop too far, e.g., after brine is removed to repair or replace the primary liner or after significant precipitation events?
 - c) The DSEIS indicates that Finite Element Analyses were performed to evaluate the stability of the proposed storage caverns and nearby solution mining and gas storage caverns over the next 50 years. While operational growth of the LPG storage caverns is expected to be 1-2% per year, the assumed operational growth rate, if any, of the adjacent caverns was not noted. The FEA discussion should include the assumptions made in evaluating the cavern stability (though perhaps this is included in the confidential information).
- 3) **Regulatory Oversight:** Section 4.6.3 references the agencies that have regulatory roles for various aspects of the LPG storage operations. The list does not include the permitting of the brine injection by the EPA UIC program.

- 4) **Wetlands Impacts:** While it is expected that any impacts to wetlands on the brine pond parcel will be minimal, the DSEIS should include a quantification of all wetlands impacts and proposed mitigation.
- 5) **Revegetation:** While Section 4.5 of the DSEIS discusses the use of native plants and grasses to revegetate the property, Appendix K, page 8 states that Russian olive (*Elaeagnus angustifolia*) will be used. Russian olive is considered invasive and/or noxious in several states. Please ensure that all vegetation is native and non-invasive.

Thank you for the opportunity to comment on the DSEIS. If you have any questions, please contact Lingard Knutson of my staff at (212) 637-3747.

Sincerely,



Grace Musumeci, Chief
Environmental Review Section.