

July 30, 2015

VIA EMAIL and REGULAR MAIL

Mr. Marc Gerstman
Acting Commissioner
New York State Department of Environmental Conservation
625 Broadway, 14th Floor
Albany, NY 12233-1010

Re: Tioga Energy Partners, LLC
Snyder Well Applications E 1 and E 1A

Dear Commissioner Gerstman:

This office represents Tioga Energy Partners, LLC (“TEP”) regarding the above-referenced applications. We are aware of the July 27, 2015 letter of opposition sent to you by the Adirondack Mountain Club, *et al.* (collectively “AMC”), and provide this brief response to correct the mischaracterizations and demonstrably false statements contained in the AMC letter.

It is worth noting that AMC’s provocative rhetoric is nothing more than that — empty, non-substantive speculation wrapped in alarmist terms. As demonstrated by the application materials submitted to DEC, and as briefly shown below, AMC’s rhetoric cannot withstand even slight scrutiny.

At the outset, it is unclear why the AMC letter attaches correspondence from 2012 concerning a different project that is irrelevant to the current applications. As the 2012 correspondence is irrelevant to TEP’s applications, there is no need to further address it here.

Likewise, AMC’s myriad unsupported and speculative statements regarding alleged environmental impacts of the project require no detailed response. As the Department is aware, the applications are currently undergoing a thorough review pursuant to both the State Oil, Gas and Solution Mining Law as well as SEQRA. All relevant regulatory requirements have been and will continue to be followed.

Contrary to AMC's pure conjecture about the known and unknown effects of waterless propane hydraulic fracturing, the benefits of using propane instead of large volumes of water for well stimulation are well known. These benefits are discussed, among other places, in the recently completed FSGEIS (Chapter 9.3) as well as in TEP's application. A copy of the summary of benefits contained in the application is attached for your convenience.

AMC's hyperbolic reference to "two major explosions" during the use of waterless propane fracturing is simply inaccurate. One referenced incident did not even involve GasFrac.

There was a fire (not an explosion) at a well site where waterless propane fracturing *was* to be conducted, but had not yet started. The fire was caused by poor operating procedure by a third party who incorrectly opened the main valve on the wellhead, which allowed gas to escape from the well and the gas ignited. This incident had nothing to do with GasFrac operations or the use of propane for well stimulation.

Nonetheless, in response to this incident GasFrac implemented a wellhead lockout procedure requiring the placement of chains on the wellhead valves with different-colored locks. Each company involved with anything attached to the wellhead is provided a key to its lock, and when it is time to open the wellhead, each company removes its lock with GasFrac being the final lock removed before the wellhead can be opened.

The second incident involved GasFrac employees who did not follow established procedures. In this incident, after a leak from a pump had been detected by the on-site LEL monitors, emergency shutdown procedures were implemented. Three employees failed to proceed to the safe muster point as required. When these employees moved toward the pump, a fire occurred and some suffered burns. GasFrac immediately suspended operations until a thorough investigation had been completed. Based on the findings of the investigation, Gasfrac increased the number of LELs it uses on site so that nearly every piece of equipment has its own LEL monitor and instituted the use of infrared cameras as part of its safety program. In addition, a "hard marked" hot zone was established with a zero tolerance policy on entering the hot zone during fracturing operations. Since these protocols and changes were implemented five years ago, there have been no incidents related to the GasFrac process¹.

AMC's wild claims about chemical additives and secret information are simply false. There are only three (3) chemical additives used in waterless propane hydraulic fracturing fluid. TEP will make a complete disclosure of this information to DEC as part of the application process.

¹ The descriptions of and GasFrac's response to these incidents is based upon communications with GasFrac officials.

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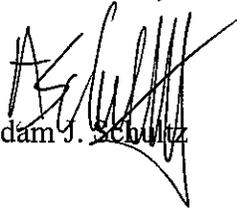
Finally, while AMC wants to tell a tale that waterless propane hydraulic fracturing is new and unknown, and therefore scary, the fact is that this stimulation technology has been used successfully to stimulate over 2,600 zones at more than 800 well sites in North America.

As seen from the above and review of the extensive information submitted in support of the TEP applications, AMC's opposition is based on nothing but innuendo, conjecture, speculation and deliberate misinformation. It is, in short, baseless. While we understand that AMC and others may be opposed to TEP's applications, we cannot allow unfounded, unsupported and unsupported statements to go unanswered. We will continue to respond to these types of comments as necessary.

On behalf of Tioga Energy Partners, LLC, I appreciate your and your staff's time and attention to this matter. We will continue to cooperate with the Department's careful and thorough review of the applications. If you have any questions or concerns, please contact me.

Very truly yours,

COUCH WHITE, LLP



Adam J. Schultz

AJS/mcs
Enclosure

cc: Mr. Basil Seggos, Deputy Secretary (via email and regular mail)
Mr. Ed McTiernan, General Counsel (via email and regular mail)
Eugene Leff, Deputy Commissioner (via email and regular mail)

BENEFITS OF USING LIQUID PETROLEUM GAS (LPG) COMPLETION TECHNOLOGY

As noted in the recently completed Final Supplemental Generic Environmental Impact Statement (FSGEIS), the use of LPG as a carrier fluid is considered to be a "more environmentally-friendly" option than using high volumes of water for the hydraulic fracturing of horizontally drilled wells in the Marcellus Shale and other low-permeability gas reservoirs. The complete statement from the FSGEIS regarding the LPG alternative is attached.

Benefits of using LPG completion technology include:

NO WATER REQUIRED

- No water sourcing is required because the technology does not require the use of any water.
- No flowback water disposal is required because the technology does not require the use of any water.

LESS TRUCK TRAFFIC

- There is an approximately 50% reduction in the volume of truck traffic associated with the use of LPG due to the lower volume of propane (versus water) needed to complete the well stimulation.
- Propane is available locally.
- The propane is transported in the same types of trucks that have been safely delivering propane for residential and commercial uses for decades.
- Propane deliveries are made only during daylight hours.

LPG IS MORE EFFECTIVE

- LPG is a more effective carrier of proppant (sand) based upon its ability to hold the sand in suspension for longer periods of time. This results in more sand entering and remaining in the rock fractures.
- The greater number of fractures that remain open results in a better rate of resource recovery.
- Increased productivity results in fewer wells needed to recover the same volume of natural gas which reduces surface impacts.

LPG IS NON-REACTIVE AND RECYCLABLE

- LPG (unlike water) does not react with the formation. This prevents the transport of minerals or salts to the surface during the flowback phase.
- LPG minimizes formation damage that would occur with the use of high volumes of water.

- The recovered LPG is suitable for reuse in residential, commercial or industrial applications.

ADDITIONAL BENEFITS

- Flaring occurs only for a brief period at the end of each stimulation day (approximately 10 days).
- Hydraulic fracturing additives arrive and are stored in self-contained, covered trailers.
- Additives remain in the self-contained, covered trailers until they are dispensed directly into the mixing unit.
- The self-contained, covered trailers also serve as secondary-containment with a drip proof containment system.
- No dust is associated with the delivery, storage or use of proppant. All systems are enclosed.
- Use of LPG eliminates the need for the biocides present in a water based system

Liquefied Petroleum Gas (LPG) alternative –

The use of LPG, consisting primarily of propane, has the advantages of carbon dioxide and nitrogen cited above; additionally, LPG is known to be a good carrier of proppant due to the higher viscosity of propane gel [55]. Further, mixing LPG with natural gas does not 'contaminate' natural gas; and the mixture may be flowed directly into a gas pipeline and separated at the gas plant and recycled [55]. LPG's high volatility, low weight, and high recovery potential make it a good fracturing agent. Use of LPG as a hydraulic fracturing fluid also inhibits formation damage which can occur during hydraulic fracturing with conventional fluids. Using propane not only minimizes formation damage, but also eliminates the need to source water for hydraulic fracturing, recover flowback fluids to the surface and dispose of the flowback fluids. 559 As a result of the elimination of hydraulic fracturing source water, truck traffic to and from the wellsite would be greatly reduced. In addition, since LPG is less reactive with the formation matrix, it is therefore less likely to mobilize constituents which could increase NORM levels in the flowback fluid. LPG is discussed and addressed in the 1992 GEIS in the context of the permitting of underground gas storage wells and facilities in the State. Currently, there are three operating underground LPG storage facilities and associated wells for the injection and withdrawal of LPG, with a total storage capacity of approximately 150 million gallons of LPG. It is quite possible that these storage facilities which are located in Cortland, Schuyler and Steuben Counties could supply the LPG needed to conduct hydraulic fracturing operations at wells targeting the Marcellus Shale and other low-permeability gas reservoirs should a well operator make such a proposal for the Department's approval.

Well applications that specify and propose the use of LPG as the primary carrier fluid will be reviewed and permitted pursuant to the 1992 GEIS and Findings Statement. Horizontal and directional wells, which are part of the main subject of this SGEIS, are already in use in the Marcellus Shale. While these drilling techniques require larger quantities of water and additives per well because of the relatively longer target interval, horizontal and directional wells are considered to be more environmentally-friendly because these types of wells provide access to a larger volume of gas/oil than a typical vertical well [20, 23] 560

559
Smith, 2008, p.3.

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URS, 2009. Pp. 6-1 – 6-7.