

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Mineral Resources, Region 8

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April 15, 2016

Adam Schultz, Esq.
Couch White, LLP
540 Broadway
P.O. Box 22222
Albany, NY 12201-2222

Re: NOTICE OF INCOMPLETE APPLICATIONS

Tioga Energy Partners, LLC, Well Drilling Permit Applications
Snyder E 1 (API 31-107-30000-00-00)
Snyder E 1-A (API 31-107-30000-01-00)

Dear Mr. Schultz:

The New York State Department of Environmental Conservation (Department) has completed an initial review of the well drilling permit applications submitted by Tioga Energy Partners, LLC (TEP) on May 19, 2015 for the proposed Snyder E 1 well and on July 7, 2015 for the proposed Snyder E 1-A well. Both wells are located in the Town of Barton, Tioga County, and are proposed to be drilled sequentially at the same surface location. The proposed Snyder E 1 well is a vertical stratigraphic test well to the Utica Shale formation. The proposed Snyder E 1-A is a horizontal well in the Marcellus Shale formation with stimulation using propane waterless hydraulic fracturing (WLHF).

This Notice of Incomplete Applications (NOIAs) provides TEP with requirements to complete the referenced well drilling permit applications. All items included on the Attachments must be addressed by TEP for the Department to continue processing the applications, and to be able to make a determination if this relatively unique fracturing technology that has not heretofore been subject to a full environmental analysis has the potential to cause significant adverse environmental impacts.

This NOIA does not address incompleteness for any other Department applications, permits and/or approvals that may be required in association with the subject permits. Please contact me at (585) 226-5376 if you have any questions concerning this NOIA.

Sincerely,

A handwritten signature in cursive script that reads "Linda Collart". The signature is written in dark ink and has a fluid, connected style.

Linda Collart
Regional Mineral Resources Supervisor

Attachments

c: David Bimber
Jennifer Maglienti, Esq.
Peter Briggs

NOTICE OF INCOMPLETE APPLICATIONS
Tioga Energy Partners, LLC Well Drilling Permit Applications

Attachment 1 – Snyder E 1 (API 31-107-30000-00-00)

The following information must be provided to determine whether a permit or registration from the Department's Division of Air Resources is required for this project in accordance with 6 NYCRR Part 201:

If any noted combustion source or emission source is present for both well projects (i.e., Snyder E 1 and Snyder E 1-A), TEP must include incremental and total durations/emissions when responding to related items noted in Attachment 1 and Attachment 2. Because of the sequential nature of the proposed well projects, the Department must be provided adequate information to evaluate the projects as a whole with respect to potential impacts to air resources.

1. Identify any fuel-fired stationary combustion equipment that will be brought on site for drilling and plugging operations. This includes compressors, engines/generators, heaters, flares, boilers or any other non-mobile combustion source. For each source, please provide the following information:
 - a. Size of the unit (e.g., maximum rated break horsepower (BHP) for engines, heat input capacity for flares/heaters or other combustion sources);
 - b. Fuel burned in the source;
 - c. Duration that the source will be physically located on site, and the expected total duration of operation for each source in terms of operating hours; and
 - d. Estimated maximum hourly emissions for each source, and the anticipated total actual emissions for each source.
2. Identify whether any gas venting can or will occur on site during drilling or plugging operations. If gas venting can occur, identify the anticipated composition of the vented gas, anticipated gas flow rate, and anticipated or possible duration of any gas venting.
3. Identify whether any storage tanks will be located on site during drilling or plugging operations. For each storage tank, identify the material being stored, the size of the storage tank, and an analysis of whether the storage tank is exempt from permitting under NYSDEC air regulations (ref. 6 NYCRR Part 201-3). For any tank not exempt from air permitting, an application for an air permit or registration must be submitted.

Status of Additional Coverages/ Agreements/Approvals

Please provide the status of the following additional determinations and approvals:

1. Coverage under the General Permit for Construction Stormwater Management from the Department's Division of Water.
2. Susquehanna River Basin Commission (SRBC) approval(s).

NOTICE OF INCOMPLETE APPLICATIONS
Tioga Energy Partners, LLC Well Drilling Permit Applications

Attachment 2 – Snyder E 1-A (API 31-107-30000-01-00)

The following information associated with the hydraulic fracturing phase must be provided:

1. Safety and Emergency Response Plans: It is acknowledged that TEP submitted “Safety and Emergency Response Plans” with its drilling permit application dated July 7, 2015 which specifically reference GASFRAC Energy Services LP (Gasfrac) safety and emergency literature. With its October 22, 2015 correspondence, TEP submitted an “Emergency Response Plan” (ERP) dated October 2015. The ERP does not reference specific information provided in the July 7th submittal. Additionally, the Department understands that Gasfrac may not be the company that ultimately provides the stimulation services, and that another company or TEP employees may perform the work. It is unclear what portions, if any, of the Safety and Emergency Response Plans submitted with the July 7, 2015 application are still applicable to the proposed operation, and how they relate to the October 2015 ERP. Applicable safety plans (e.g., establishment of hot zone for hydraulic fracturing, safety monitoring equipment such as lower explosive limit (LEL) and/or infrared monitors) provided in the July 7, 2015 submittal should be added to TEP’s ERP “Appendix E – Security, Signs & Safety Equipment.”

The protocols and procedures provided in an ERP are intended to provide for the protection of lives, property and natural resources through appropriate advance planning and the use of company and community assets. TEP’s October 2015 ERP substantially meets these requirements; however, in addition to incorporation of applicable safety plans into Appendix E, there are a few remaining items that must be included or addressed:

- a. With respect to “5. Incident Management Team Structure” on Page 12 of the ERP, the identities of applicable team members must be provided to the Department (i.e., Linda Collart) whenever a non-routine incident notification is made within two (2) hours of an incident. Please include this as a footnote on Page 12 or other appropriate location within the ERP;
- b. The heading “Drilling Notices Required” on Page C-13 of the ERP should be amended to read “Drilling, Hydraulic Fracturing and Flowback Notices Required.” This section should be amended to include any pre-stimulation notification (i.e., at least 24 hours prior to the commencement of pumping the first stage for hydraulic fracturing) that would be provided to the Department (Linda Collart). The section should also be amended to include any pre-flaring notification (i.e., at least 24 hours prior to the first

flaring event for each phase of hydraulic fracturing and flowback) that would be provided to the Department (Linda Collart), town supervisor, adjacent landowners, local law enforcement, county emergency management office and local fire department; and

- c. The text under the subheading "Completion" on Page C-13 of the ERP should be amended to read "Within thirty (30) days after the well has been completed (after stimulation and testing), TIOGA shall file a Completion Report Form [85-15-17 (4/09)--28a] containing all requested information, two copies of all logs run on the well, and a directional drilling report."
2. TEP provided information on an accident attributed to propane hydraulic fracturing in a July 30, 2015 letter to the Department where GasFrac employees were injured when they did not follow established procedures. Please provide any available company and regulatory reports on any investigations that resulted from the referenced incident.
 3. If available, provide information on any subsurface faulting in the subject area, including structure maps. Have any seismic surveys been performed by TEP or does TEP have access to any seismic survey data for the subject area?

The following information associated with the flowback phase must be provided:

1. It is stated that flowback will not be vented or flared unless there is an upset condition requiring temporary venting or flaring, and that recaptured LPG would be returned to the supplier.
 - a. Provide details on how any natural gas contained in the flowback will be handled and separated, including any storage in tanks on location and transportation off site. If transportation of produced natural gas during flowback is by truck, provide an amended "Schedule of Propane Trucking Requirements During LPG Fracturing & Propane Recovery (Flowback) Operations" indicating days, amount and number of truckloads anticipated. If appropriate, edit title of said schedule to include natural gas recovery. If temporary storage tanks are added to the well site to accommodate the produced natural gas, provide an updated "Tioga-Proposed Propane Recovery Flowback Schematic." Provide natural gas trucking routes from the site to destination(s). Identify roads as private, town, county or state. If trucking will not be used to move natural gas produced during the flowback phase, please explain how the natural gas will be managed and transported.
2. It is understood that a refrigeration unit will be used to recapture propane and natural gas during the flowback phase.
 - a. The Department further understands that a natural gas/LP-powered standby generator(s) will be used to power the refrigeration unit and other

equipment as necessary. Please confirm the Department's understanding, and provide the number and size of generators proposed to be used on site during the flowback phase. In its October 22, 2015 submittal, TEP provided the manufacturer's noise/sound-level operating data for the standby-generator(s). Please provide the manufacturer's noise/sound-level operating data for the refrigeration unit.

3. The Department understands that equipment associated with the flowback phase would be on site for 66 total days while equipment for hydraulic fracturing would be in operation for a maximum of 5 days (during daylight hours only). Please confirm the Department's understanding.

The following information associated with the production phase must be provided:

1. The production phase is a potential contributor of greenhouse gas emissions. Please provide information on any equipment and practices which would be employed at the wellsite to reduce or prevent methane venting and leakage, including any required by the United States Environmental Protection Agency (USEPA). In addition to any federal requirements, such equipment and practices may include those described under the USEPA's Natural Gas Star Program.

The following information must be provided to determine whether a permit or registration from the Department's Division of Air Resources is required for this project in accordance with 6 NYCRR Part 201:

1. Identify any fuel-fired stationary combustion equipment that will be brought on site for all phases (drilling, completion including hydraulic fracturing, and production) of the project. This includes compressors, engines/generators, heaters, flares, boilers or any other non-mobile combustion source. For each source, please provide the following information:
 - a. Size of the unit (e.g., maximum rated break horsepower (BHP) for engines, heat input capacity for flares/heaters or other combustion sources);
 - b. Fuel burned in the source;
 - c. Duration that the source will be physically located on site, and the expected total duration of operation for each source in terms of operating hours; and
 - d. Estimated maximum hourly emissions for each source, and the anticipated total actual emissions for each source.
2. Identify whether any gas venting can or will occur on site during any phase of the project. If gas venting can occur, identify the anticipated composition of the vented gas, anticipated gas flow rate, and anticipated or possible duration of any gas venting.
3. For each project phase, identify whether any storage tanks will be located on site. For each storage tank, identify the material being stored, the size of the

storage tank, and an analysis of whether the storage tank is exempt from permitting under NYSDEC air regulations (ref. 6 NYCRR Part 201-3). For any tank not exempt from air permitting, an application for an air permit or registration must be submitted.

4. Identify whether any gas treatment (e.g., dehydration) will occur on site. If so, please provide a description of the equipment and anticipated potential and actual emissions from this source(s).

Status of Additional Coverages/ Agreements/Approvals

Please provide the status of the following additional determinations and approvals:

1. Coverage under the General Permit for Construction Stormwater Management from the Department's Division of Water.
2. Truck Traffic - TEP provided "preferred alternative trucking routes" as Exhibit 4 with its October 15, 2015 submittal. Please confirm that these are the routes that would be used for the transportation of propane for the hydraulic fracturing and flowback phases. If applicable, provide trucking routes for natural gas associated with the flowback phase. Has TEP been provided any input from the Town of Barton and/or Tioga County, as appropriate, relative to any proposed traffic on town and/or county roads or any required road-use agreement(s) as a result of transportation for the hydraulic fracturing and flowback phases? If "yes," please provide details.
3. SRBC approval(s).