Proposed Wheatfield Dehydration Facility

Project Overview


The Northern Access 2016 Project is a $455 million infrastructure investment that is designed to transport domestically produced shale gas to ensure reliable, cost-efficient natural gas service for customers throughout the North American pipeline system. The project has a substantial slated economic impact for New York State, including more than $11.5 million in annual property taxes to the counties within which the project will be located. During the construction phase of the project, approximately 1,000 to 1,200 jobs will be created, with a payroll exceeding $138 million, and an additional multiplier effect in other businesses. Additional jobs within National Fuel, and other local companies, will be sustained once the project is in service. Twenty-three towns across Pennsylvania and New York will be involved in this infrastructure project. Since August of 2014, there have been 4 public meetings in Niagara County discussing the Northern Access 2016 Project.

With more than 110 years of experience in the natural gas industry, National Fuel is committed to the cities, towns and villages where we live and work. We have a personal stake in the communities where we operate as our 2,000 employees, their families and 2,270 retirees live in our service areas. Within our Pipeline and Storage businesses, we have more than a century's worth of experience in building and operating natural gas facilities and are committed to safely constructing pipeline systems with minimal environmental and community impacts.

Dehydration Unit

As part of project application and following meetings with officials in the Town of Wheatfield, N.Y., National Fuel is proposing to construct a dehydration facility on Liberty Drive, in Wheatfield, in an area zoned M-1 (industrial zone) across from a waste water treatment facility. The facility will occupy approximately 2 acres of a 40-acre site, with the closest residence approximately 2,650 to 2,750 feet from the proposed location.

National Fuel anticipates infrequent operations of this facility because the natural gas flowing through the Empire gas transmission pipeline will be pipeline quality with acceptable water vapor content. If water vapor does, however, exceed downstream standards in the natural gas stream, the dehydration facility will have the ability to remove water vapor from the gas to a level of (4) pounds per million standard cubic feet (MMSCF).

The unit will include 2 contact towers (33 ft. height, 84-in. inner diameter) and 2 re-boilers (10 ft. wide x 32 ft. long x 21.5 ft. height). No bulk storage tanks will be onsite.

Dehydration Process

During the natural gas transmission process, humidity, commonly contained in natural gas, is removed through a dehydration process. As natural gas enters the dehydration system, triethylene glycol (TEG), a colorless and odorless liquid, serves as a liquid desiccant and absorbs water from the natural gas. The now dry natural gas is directed back to the pipeline for continued transport. The “wet” TEG is circulated to a natural gas-fired indirect heater (reboiler), and the water is boiled off the TEG. Since the water vapor may contain trace amounts of hydrocarbon present in the gas stream, it is routed to a thermal oxidizer which incinerates or decomposes these trace amounts with 99-percent efficiency, after which the cleaned water vapor is released.
Commonly Asked Questions

1. Will it be noisy?
a. The proposed Wheatfield unit will be held to a specific 55 dBA Ldn noise requirement at the closest residence. Residents living within a half mile of the proposed dehydration facility will not hear the unit nor feel any vibration from it.

2. How will this impact air quality?
a. As part of the air permit application process, the New York State Department of Environmental Conservation will evaluate facility emissions and ambient air quality impacts to ensure that the proposed facility complies with all applicable air quality regulations and does not have an adverse impact on human health or the environment. The implementation of the thermal oxidizer, described above, is an additional emission control measure proposed by National Fuel, not required by permit. The proposed facility will not have routine venting or blow downs of gas.

3. What if there is an emergency at the unit?
a. National Fuel’s Gas Control Operations Center (GCOC) monitors all major gas facilities and can identify abnormal or emergency conditions, should they occur. In the event GCOC identifies one of these conditions at the dehydration unit, GCOC is able to make system adjustments remotely and/or dispatch appropriate field personnel to respond. With decades of experience in the design and operation of more than 30 dehydration facilities across New York and Pennsylvania, National Fuel has not experienced a major incident.

4. Does Wheatfield receive any annual tax benefits?
a. The Northern Access 2016 Project will generate significant tax benefits throughout Niagara County, including:
   i. Starpoint Central School: $1,587,000
   ii. Niagara-Wheatfield Central School: $373,000
   iii. Niagara County: $748,000
   iv. Town of Pendleton (fire, water, etc.): $103,000
   v. Town of Wheatfield (fire, sewer, etc.): $25,000
   vi. Total Estimated Property Taxes: $2,837,000
   vii. And a One-Time Sales Tax:
      1. Total Niagara County Sales Tax: $2,403,000