

HYDRAULIC FRACTURING AND CHEMICAL DISCLOSURE

Why is a well hydraulically fractured?

Unconventional formations such as the Marcellus and Utica shales contain natural gas that is trapped in tight rock formations thousands of feet below the surface. After drilling and placing a wellbore into the shale formation, the well is hydraulically fractured to expand the naturally occurring fractures within the formation and release the natural gas.

What is in the fluid used to hydraulically fracture a well?

According to a [U.S. EPA analysis](#) of over 39,000 disclosure reports, the median concentration of hydraulic fracturing fluid was approximately 88% water, 10% proppant (typically sand) and less than 0.5% chemical additives.

What are proppant and additives used for?

Proppant – typically sand – is used to “prop open” the fractures within the shale formation so that natural gas can flow to the well bore and up to the surface. Chemical additives are used for a variety of purposes, such as helping natural gas or oil to flow more freely, eliminate bacteria, reduce friction from water flow, and inhibit corrosion of steel pipes.

What steps are taken to ensure the environment and public health are protected during the hydraulic fracturing process?

Pennsylvania has among the most stringent well construction standards in the nation. Wells must be constructed with multiple layers of casing and cement to protect against any fluids from migrating into ground water. The actual process of hydraulic fracturing occurs thousands of feet below the potable water table.

Additionally, surface activity related to unconventional well development occurs on a pad equipped with protections to contain any inadvertent spill or release, while additives and other potential contaminants must be stored with a secondary, redundant containment.

Are unconventional oil and gas operators required to disclose the chemicals used to hydraulically fracture a well?

Yes. Under [Act 13 of 2012](#), unconventional operators are required to disclose information regarding hydraulic fracturing additives and chemicals in two ways: to the Pennsylvania Department of Environmental Protection (PA DEP) as part of the [well completion report](#), and to the FracFocus chemical disclosure registry developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission.

Act 13 permits operators to designate certain portions of its disclosure as a trade secret or confidential proprietary information, which shall not be publicly disclosed to the extent permitted under state law. However, PA DEP regulators have access to all data, including trade secret or confidential proprietary information, for any purpose it deems necessary.

Why might certain information be deemed proprietary or confidential?

State law permits many businesses to designate certain information as proprietary when doing so discloses trade secrets and would place the business at a competitive disadvantage. These protections are used in a very limited fashion with respect to oil and gas activities, and principally are related to additive performance. As noted above state regulators continue to have access to all information regarding the use of hydraulic fracturing additives to share with health care providers or emergency responders as may be necessary.

Are chemical disclosure reports available to the public?

Yes. FracFocus reports can be accessed by visiting www.fracfocus.org, while reports filed with PA DEP can be accessed on the Department's [Electronic Submissions](#) website.

What other disclosures are required to ensure public safety?

Like other industries, oil and gas operators must disclose the presence of hazardous chemicals at a facility location to the Pennsylvania Department of Labor and Industry, county emergency management agencies, and local first responders. Under the [Pennsylvania Tier II System Program](#), operators must file annual disclosure statements with specific information regarding hazardous chemicals present at each facility during the previous year.

Additionally, once certain inventory thresholds of select chemicals present at a location are reached, operators must disclose the presence of such chemicals to the Pennsylvania Tier II System within five business days. The online submission of this data makes it available immediately to emergency responders. In addition to the hazardous chemical reporting requirements, operators must also maintain [Safety Data Sheets](#) which can be accessed onsite for any hazardous chemicals that are present in the event of an emergency.