



For Viewing Only

[Home](#) [About](#)

## From Otsego 2000: The Challenges of Horizontal Hydraulic Fracturing in New York State – comments by James Northrup

JULY 25, 2010

by CooperstownChamberDirector



### Horizontal Hydrofracking of Shale Gas in New York

by James Northrup, Cooperstown, NY

*James Northrup was in the energy business for 30 years. Having sold a company to Atlantic Richfield (ARCO) in the late 1970's, he was a Planning Manager at ARCO. He has been an independent oil and gas producer in Texas and New Mexico and has owned onshore and offshore drilling rigs, in Texas, Louisiana, Oklahoma, west Africa, Brazil and the South China Sea. He is a board member of Otsego 2000. This article expands on Northrup's comments made at the July 21st Public Forum on Natural Gas Drilling, organized by the Otsego County Board of Representatives, and has been shared with them as well.*

The regulations on hydrofracking proposed by the DEC were written for existing small vertical New York wells – known in the industry as "stripper wells" – oil wells that produce less than 10 barrels a day. A horizontal hydrofrack in a tight shale formation is from 10 to 100 times larger than the fracks put on these small vertical wells; yet the proposed regulations on horizontal hydrofracking of shale gas differ only slightly from those imposed on small vertical wells. The existing DEC well regulations are grossly inadequate to regulate a horizontal hydrofracked well in shale gas. They are a prescription for disaster for New York's drinking water.

Horizontal hydrofracking of shale gas formations is essentially a hydrobaric underground explosion, i.e., a bomb. A very powerful, very dirty, pipe bomb. A bomb's explosive power is a function of the pressure wave it generates and the mass of air or water it displaces. An "air bomb" used in Afghanistan as an anti-personnel device has a pressure wave of about 500 lbs per square inch (psi). It can be heard up to 100 miles away. A horizontal hydrofrack in shale can have pressures approaching 15,000 psi, or 30 times that of an air bomb. That is equivalent to the water pressure 6 miles deep in the ocean. The volume of fluid in a hydrofrack can exceed 3 million gallons, or almost 24 million pounds of fluid, about the same weight as 7,500 automobiles. The fracking fluid contains chemicals that would be illegal to use in warfare under the rules of the Geneva Convention. This all adds up to a massive explosion of a "dirty bomb" underground.

### EMAIL SUBSCRIPTION

Enter your email address to subscribe to this blog and receive notifications of new posts by email.

### ARCHIVES

Select Month

### COOPERSTOWN CHAMBER OF COMMERCE



[Go to the Cooperstown Chamber of Commerce Website!](#)

### NEWS FROM COOPERSTOWN CHAMBER OF COMMERCE

 [RSS - Posts](#)

Since the chemicals in most fracking fluids are hydrocarbons (i.e., oil based), they separate from the frack water, meaning they rise to the top of the fractures within a matter of days. So while they represent a small fraction of the total fracking fluid, they are disproportionate at the top of the formation – which is why they are found in relative abundance in adjacent water wells – when such wells are polluted by shale gas drilling.

When a shale gas well is hydrofracked, the explosive power of the frack breaks up the rock indiscriminately for a considerable distance – far enough to break into nearby aquifers – particularly if the frack hits a vertical fault that may cause the gas bearing formation to "communicate" with other strata. This can release natural gas – which consists of methane, butane, propane, and benzene, etc. – into drinking water, along with the toxic chemicals in the fracking fluid. Once introduced, there is no way to remove the gas or the chemicals from the drinking water.

As originally proposed by the DEC, a horizontal hydrofracked shale gas well could be 50 feet from a municipal drinking water source such as Lake Otsego. That has been the setback for "stripper wells" in New York – it's about the width of a small residential lot. The well itself can be drilled under the lake, since it would go out horizontally from the shore. The frack on the well could penetrate the aquifers under the lake, which in turn would pollute the lake with gas and toxic chemicals. After Otsego 2000 protested the proposed regulations, the DEC increased the setback to 150 feet from the lake – three house lots away from the shoreline. A spill at the well site would easily get into the lake. The horizontal section of the well could extend far under the lake – since the lake is not controlled by the municipality that uses it for drinking water. The proposed DEC regulations offer no protection for the lake or its watershed. They pose a threat to all water wells, creeks, rivers and lakes in the Southern Tier.

As proposed, New York State's regulations on this activity are the worst in the country. Unlike other states, there is no direct tax on the gas produced, so the state reaps no direct benefit from the production. Unlike other states, New York tasks its regulatory agency, the DEC, with the issuance of drilling permits – thus compromising the DEC's mission as environmental watch-dog. Unlike other states, New York can compel a landowner to participate in drilling a well – even if the landowner has not signed a lease; this practice is known as "compulsory integration" – which is illegal in other states.

New York State represents a dramatically different drilling regime than other states where the horizontal hydrofracking of shale formations have been developed. For example – Texas is about the size of France but has only one natural lake (Caddo). All other surface water sources are impoundments – man-made reservoirs – and all of them are either owned or controlled by a municipality for drinking water, or by the Corp of Engineers. If Cooperstown were in Texas, Lake Otsego would be a reservoir owned by the townships and County. The issue of drilling next to the lake or fracking under the lake would be a municipal decision, not a private one.

New York's proposed regulations treat New York City and Syracuse differently than other municipal drinking water sources. The DEC puts a gloss on its reasoning for such disparate treatment, but it is not likely to survive a court challenge. The Board of Representatives should not tolerate such disparate treatment for Otsego County residents. Otsego County residents should have the same protections that New York City residents have over their drinking water. And that every Texan has for their municipal water supply.

The proposed DEC regulations should be scrapped. The state should wait for the EPA to issue its new guidelines on horizontal hydrofracking of shale gas wells. And the state should wait for Congress to close the "Halliburton loophole" in the Clean Water Act – as recently proposed by Congressman Acuri, so that such wells are once again brought under federal jurisdiction, like they were before the 2005 Energy Act exempted them from regulation.

James L. Northrup  
Cooperstown, NY



<http://www.otsego2000.org>


Otsego 2000 is a not-for-profit organization founded in 1981 to protect the environmental, scenic, cultural and historic resources of the Otsego Lake region and northern Otsego County

---

*from* → Cooperstown Chamber News & Announcements

← Cooperstown Farmers' Market – Saturday, July 24

Fenimore Art Museum's Outdoor Summer Event Art by the Lake set for Saturday, August 7 →

 Like Be the first to like this post.

*Comments are closed.*

---

Theme: [Vigilance](#) by [The Theme Foundry](#).

[Blog at WordPress.com](#).

