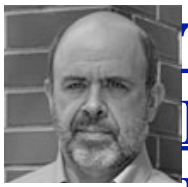

The Marcellus Shale Play: A Reporter's Peaceful Retreat Becomes A Natural Gas Industry Target

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WATKINS GLEN, N.Y. -- Five years ago, when I bought a 194-year-old home on 8 acres overlooking Seneca Lake, the largest of New York's Finger Lakes, I had no idea that the scenic region would become a prime target for the "rush to drill" natural gas industry. Now, looking west across the deep blue lake at a long-established salt plant on the opposite shore, I see what I fear may be the vanguard of industrial exploitation.

Inergy, a Kansas City-based fuel storage and gas pipeline company, bought the plant two years ago in order to convert its salt caverns into a repository for millions of barrels of liquid propane and butane. The company is putting infrastructure in place to serve the boom in drilling for natural gas in the Marcellus Shale, a rich deposit running from upstate New York through Pennsylvania, Ohio and West Virginia.

Efforts to obtain permits for the $191-million project less than two miles from Watkins Glen have been low-key. Few residents in this relaxed lakefront town of 2,200, which attracts auto racing fans and wine tasters from May to October, have ever heard of Inergy. The only public hearings for the project were held a year ago in the nearby town of Reading, which is too small to need a traffic light. Only a handful of people attended.

Virtually no one has expressed worries that the salt caverns could be a potential powder keg.

But salt caverns have been more prone to catastrophic accidents than the other more common types of underground storage for natural gas or liquified petroleum gas, or LPG. A 2008 report by the British Geological Survey cited several salt cavern accidents, including an explosion caused by an LPG leak in Texas that registered 4 on the Richter Scale and killed three people.

The dangers are well known to state regulators, who by law must pay close attention to the engineering and geology of salt caverns used for LPG storage. "Cavern stability is absolutely critical," a senior official at the New York State Department of Environmental Conservation told me. "It's make-or-break for the permit."

Even so, one full year into the Inergy case, the chronically understaffed DEC still hasn't decided whether to require a formal environmental impact statement for all or some of the permits the company requests. The company also seeks regulatory approval for a 25-acre pond on land that slopes sharply down toward the lake. It would hold brine extracted from the caverns.

The third component of Inergy's plan is a rail/truck depot, which would accommodate hundreds of LPG-laden railcars that would have to pass over the spindly 75-year-old railroad trestle spanning the spectacular gorge in the Watkins Glen State Park.

Curious to learn more about the entire plan, I filed requests with the DEC under the state's Freedom of Information Law.

The agency granted several of my requests but denied access to virtually all of a "Reservoir Suitability Report" the company had submitted as part of its permit application. The reason given: Inergy had asserted its rights to protect "trade secrets." I appealed to the DEC's general counsel, arguing that the public has a competing right to view the report, particularly sections labeled "Suitability of Caverns to Store LPG" and "Safety and Emergency Shutdown." That appeal is pending.

The "trade secret" defense has been trotted out before. It is the justification behind a federal law that exempts from disclosure the chemicals now commonly used to extract natural gas from shale.

Marcellus Shale drillers rely on a technique known as horizontal hydraulic fracturing, or hydrofracking. Drills dig down thousands of feet to the Marcellus and then angle horizontally along the shale deposit. Then sand, chemicals and millions of gallons of water are forced under pressure into each well to break open the shale and free trapped gas.

The practice was pioneered and perfected by Halliburton within the past seven or eight years. In 2005, Vice President Dick Cheney, a former Halliburton CEO, convinced Congress to exempt hydrofracking from the federal Clean Water Act and to let drillers keep their fracking chemicals secret.

Like Cheney, the natural gas industry sees it as a challenge to set the rules of engagement so that environmental regulations and other red tape don't slow down their timetables or jack up their costs.

In February, Inergy officials told securities analysts they were awaiting final regulatory approval and expected to be operating the LPG storage facility near Watkins Glen by "summer of this year." As the months passed, the company reminded the DEC that delay was depriving the region of "much needed propane and butane storage for winter 2011."

Clearly, a DEC order for a full environmental impact statement, or EIS, at this late date would interfere with the company's schedule.

Last year, Schlumberger managed to win speedy approval for its $40 million regional natural gas drilling hub in the town of Horseheads. That way station for toxic chemicals and explosives used by drillers within a 300-mile radius now sits above a shallow aquifer that supplies drinking water to the town of Elmira.

The company had encouraged Horseheads officials to ask the DEC to allow them to take the lead regulatory role for the project. The DEC deferred to the town, which promptly waived the EIS, ignoring pleas from dozens of residents who feared contamination of the aquifer.

Inergy tried the same tactic in Reading. It convinced the tiny town – which is represented by Tom Reed, a Republican candidate for Congress – to step in as lead regulatory agency for its LPG storage project. But the DEC rejected the town's bid and asserted its right to be lead regulator.

That was nine months ago, and the agency still hasn't ordered an EIS as of Oct. 18.

Gordon Wright, chairman of the Reading Planning Board, said the agency's delay in deciding whether to order an environmental impact statement is "ludicrous." "We'd be penalized if we took that long to make a decision," Wright said.

The DEC is the last line of environmental defense for upstate New York, which faces an imminent invasion by gas drillers – many from the oil patch in Texas and the Midwest – who plan to hydrofrack thousands of new Marcellus wells here.

The energy industry already actively hydrofracks the Marcellus in Pennsylvania. But before the drillers can cross the state line into New York, the DEC must issue its final regulations on hydrofracking.

Those rules are contained in a proposed generic environmental impact statement, or GEIS, that will help drillers zip through the permitting process without environmental reviews for each gas well. Unfortunately, the proposed GEIS has glaring gaps, according to both the federal Environmental Protection Agency and the New York City Department of Environmental Protection.

But steeled against outside criticism – and against Gov. David Paterson's mandate to slash 209 agency positions by year's end – DEC officials are soldiering on, promising to finalize the GEIS and to begin entertaining Marcellus hydrofracking permit applications by early next year.

Inergy's LPG storage project is directly linked to the frenzy to drill in the Marcellus. If approved, it would tie in to the company's extensive gas pipeline network in the Northeast. The company is also building a natural gas storage

network in New York, and it has recently taken over NYSEG's gas storage operation near Watkins Glen.

Even though the safety and environmental questions raised by Inergy's LPG storage project are being considered almost entirely outside the public view, that doesn't mean they are trivial.

Salt caverns make up less than 10 percent of 400 or so major underground gas and LPG storage facilities in the United States, according to the federal Energy Information Administration. Yet all 10 of the "catastrophic failures" at underground facilities since 1972 have occurred at salt caverns, John Hopper wrote in Energy Markets, a trade publication. Hopper, who has run two underground storage companies, attributed the pattern to salt caverns' particular vulnerability to failures of a single piece of equipment, such as a casing or a valve.

In New York, a state geologist must approve the plans for any salt cavern storage of LPGs such as propane and butane. But, William Kelly, the geologist assigned to the Inergy project earlier this year, retired in September before giving that approval, a DEC official said.

It's unclear where the agency's evaluation of the salt caverns stands. But documents provided by the agency under FOI show that Inergy plans to extract brine from the caverns to create space for about 2 million barrels of propane and butane. LPG inventories would rise in the summer and be drawn down during the winter heating season. To compensate for falling LPG levels, the company would return brine back from the proposed brine pond to help maintain proper pressure in the caverns

Although the underground storage application seeks approval to store up to 6 million barrels of LPG, the brine pond can handle only 2.1 million barrels. To tap the remaining potential cavern space, the company would have to obtain permits for new brine storage that it hasn't even proposed yet.

Bill Newell, vice chairman of the Reading Planning Board, doesn't like the brine pond that's been proposed, let alone new ones. He particularly objects to its location on the hill overlooking Seneca Lake. It would be more than 1,000 feet long, between 382 and 608 feet wide and 32 feet deep. A 30-foot cut in the hill would be required on the higher side, while a 30-foot earthen wall would be built on the lower side.

"It's a disaster. I intend to vote against the entire project," said Newell, adding that he'd prefer to see the pond dug into the ground on a flatter piece of real estate further from the lake.

The company also plans to build a rail/truck depot capable of handling up to 24 rail cars per 12 hours and space on six new rail sidings to store another 24 railcars, each of which carry about 30,000 gallons of LPG. The truck depot could handle up to 30 trucks a day.

Most of the rail traffic would run south – the direction of most drilling and the big LPG markets – on Norfolk Southern track. That means they would pass over the Watkins Glen gorge trestle, which was rebuilt in 1935 after the previous model collapsed in a storm.

Earlier this year, Kevin M. Bernstein, an attorney for Inergy, noted that Norfolk Southern trains hadn't spilled hazardous materials in New York State from 2000 to 2009. He also said "an average of three trains" run daily near Watkins Glen. That number would surely need to rise to supply the 48 railcars per day that Inergy's transportation depot is designed to handle.

Would that add stress on the trestle?

The railroad's bridge department "conducts regular annual inspections of all structures on the Norfolk Southern system with the Watkins Glen gorge structure receiving special attention," Bernstein wrote. That statement might be a comfort

to the people of Watkins Glen if they had any idea there was a safety question in the first place.

As a neighbor of the proposed Inergy project, it seems clear to me that serious safety and environmental issues demand a full environmental impact statement, even if the attendant public involvement does slow down the permitting process.

But it’s the agency’s call: public safety or trade secrets.