

Erin Gas Compression Station a Noisy Neighbor

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Broader View Weekly, November 13, 2009

The newly constructed gas compressor on Federal Road in Erin has been up and running for a bit over a month and already a couple of the neighbors have complaints about the noise.

“It runs 24 hours a day, seven days a week,” said Richard Usack who lives close to 500 feet away. “It sounds like a lawnmower running outside my window all the time. This is ruining my life.”

And it’s not just the noise that bothers Usack. “At night it’s lit up like a Christmas tree,” he said, and those lights shine into his windows all night long. Usack has called Chesapeake at least twice about his concerns, and they’ve sent someone down to measure the sound. But they don’t share the results with Usack.

What really bothers Usack is that although he sold the one-acre parcel to Columbia a few years back, he didn’t realize they would use it for such a large compressor. “We have zoning here,” he says, “but there was never a site plan review or public hearing about this compressor.”

That’s because a site plan review was not required, says John McCracken. McCracken, who is the Town of Erin Code Enforcement Officer, explained that the current owner, Chesapeake, already had an existing compressor there. Therefore, they were exempt from everything except the building permit for the structure surrounding the compressor.

According to McCracken there are six or seven gathering lines bringing gas from wells owned by both Fortuna and Chesapeake into the compressor station. Flipping through the blueprints on his desk he began reading off numbers: the nearest house is 550 feet from the compressor; the design specified a hospital-grade muffler; the engine is around 700 horsepower; the noise level is expected to be 40 decibels at the site. The building, McCracken adds, is four times the size of the compressor inside.

McCracken estimates that Erin will see another five compressor stations proposed as the Marcellus shale is developed. The new compressor stations will require site plan approval because Erin has zoning ordinances. To place an essentially industrial activity in the currently zoned residential/agricultural district will require special-use permits.

“If towns don’t have zoning, they won’t be able to control where compressor stations are located,” McCracken warned.

Brian Davis, Bradford County planner concurs. Unlike Erin, Bradford County, PA has no zoning. Davis said there are already three compression stations in the county and he expects more to come.

Residents may have little say about where a compression station goes, but that doesn’t mean they’ll keep mum. When people complained about the noise at a compressor station near Albany, the company installed acoustic blankets inside the compressor station buildings to help muffle the sound.

Air Quality a Potential Concern

Gas-powered pipeline compressors like the one in Erin produce more than noise; they also produce air pollution. So far no one along Federal Road has complained about odors, but residents in other rural areas are not so fortunate.

Dish, Texas is a tiny town of about 200 people, 18 gas wells and 11 gas compression stations. The town sits at the crossroads of nearly a dozen high-pressured pipelines – great for the gas companies but not so good for the people living in town. In the past few years, townspeople have suspected that what has been making them and their livestock sick are the emissions from the compressor stations.

Megan Collins, a 32-year-old pediatric nurse and mother, lived downwind from the compressors. In a radio interview last week she explained that she began having unexplainable symptoms: headaches, dizziness, blackouts, and muscle contractions. Doctors conducted many tests, but no one even thought that the cause might be related to the compression stations. In fact, when she asked about the fumes and odors, she was told it was all “normal”.

Unable to take it any longer, Megan moved her family away from Dish, and she began to recover. But a horse farmer wasn't so lucky; he lost two horses and blames the emissions from the compressor stations.

Calvin Tillman, the town mayor was so concerned that he asked the town for \$10,000 – 15 percent of their annual budget – to fund an air quality study. The study conducted in August found unusually high levels of benzene, carbon disulphide and xylene in the air. Altogether there were 16 toxins that exceeded air quality limits established by the Texas Commission on Environmental Quality.

The gas companies that own the compressors maintain that their engines do not harm public health. One company spokesman told the media that his company is “in compliance with state regulations.” The problem isn't individual compressors but the cumulative impact, and Tillman hopes other towns can learn from what has happened in Dish.

“By the time the odor gets bad enough for you to not want it, by the time the noise gets loud enough that it's disturbing you, it's already too late,” Tillman said. It took a lot of citizen complaints and an air quality study, but now Texas air quality regulators have undertaken a large-scale air-monitoring project in the Barnett Shale. Results are expected early next year.

Meanwhile, researchers conducting the air quality testing suggest that companies operating the compression stations install emission controls and vapor recovery systems.

Sidebar:

Noise Measurement

Noise is measured in decibels (dB). Exposure to loud noise over time may result in hearing impairment, and constant noise impacts health in other ways. Noise levels around 70 dB are usually found to be annoying; above 80 – 85 dB is uncomfortable and leads to hearing loss.

Typical sounds and their noise levels:

Jet airplane from 100 feet – 135 db
Lawn mower, leaf blower, chain saw, rock concert – 110 dB
hair dryer - 95 dB
diesel truck or busy city traffic, power drill - 90 dB
dishwasher, garbage disposal – 80 dB
washing machine - 75 dB
freeway traffic, vacuum cleaner - 70 dB
conversation - 55 dB
rainfall - 45 dB

OSHA limits for noise exposure in the workplace:

85 db - 8 hours
88 dB - 4 hours
91 db - 2 hours
94 db - 1 hour
97 db - 30 minutes
100 db - 15 minutes