

# **Neighbors oppose Wawayanda gas plant; Health concerns top the list**

By JESSICA COHEN

July 31, 2015 —

WAWAYANDA, NY — Community fears about toxic emissions from the Competitive Power Ventures (CPV) gas power plant planned for Wawayanda, NY, have not troubled town supervisor John Razzano. He expressed skepticism about reports of adverse health effects among residents near the Minisink gas compressor seven miles away.

The compressor releases just a fraction of the same emissions the plant would produce. One Minisink family, unable to sell their house, abandoned it. Others sold at a loss, fearing the health implications of symptoms that appeared when the compressor began operation.

“People often oppose projects,” said Razzano, “but we hired environmental consultants, and the Department of Environmental Conservation issued a permit.”

He points to the \$1 million a year the plant would pay in school taxes and the \$100 million construction payroll that would result from building the plant.

But Pramilla Malick, of Minisink, founder of Protect Orange County, says only 25 jobs would remain in the area, and construction workers would come from elsewhere. She is also concerned by the impending acquisition of CPV by foreign investors, Global Infrastructure Partners II. While ownership becomes more distant, health hazards are local.

Malick cites the work of environmental health expert David Brown, who has documented symptom patterns among Minisink residents. Brown, at 78, is a veteran in the world of environmental health, having been Connecticut Chief of Environmental Epidemiology and Occupational Health, and an investigator of superfund sites for the U.S. Centers for Disease Control. Employing a doctor to survey residents, Brown found that common Minisink ailments mirror what another environmental health expert, Wilma Subra, has found around the country, not only near gas compressor stations, but also gas power plants and gas drilling sites.

Subra typically finds symptoms such as asthma, allergies, coughs, nosebleeds, dizziness, weakness and rashes among 90% of residents and workers in a two- to three-mile radius of gas infrastructure. Symptoms are “more frequent and severe” around power plants, Subra says. Resulting chronic ailments she cites include lung, cardiovascular, reproductive, liver, kidney, and neurological damage; birth defects and leukemia.

“People have memory loss and confusion and trouble picking things up,” Subra says. “Babies are born missing fingers and toes.”

Subra was awarded a MacArthur Fellowship “genius grant” for her community environmental work and periodically consults for the U.S. Environmental Protection Agency. She identified symptom patterns using surveys and found toxic chemicals from gas infrastructure emissions in residents’ air.

Their symptoms resemble those of the Parr family, who lived near Aruba Petroleum’s hydraulic fracturing (gas fracking) site in Decatur, TX. The family was awarded \$2.95 million last year in a lawsuit alleging that environmental contamination from drilling sickened them, their livestock, and pets, compelling them to leave their home. Subra provided testimony, including evidence of toxic gas emission chemicals in the family’s blood.

“We’ve told the EPA and state agencies,” says Subra. “But they still grant the permits. They say emissions meet regulatory requirements. So it’s important to educate people about impacts coming their way.”

CPV spokesman Steve Sullivan, managing director of Power Communications in Saratoga Springs, rebutted her findings. Of the plant’s emissions, he said “They’re dispersed and diluted over such a wide area with such a high volume of air that they do not appreciably impact local air quality. Think of an eyedropper of lemon juice in an Olympic swimming pool. This is precisely why the stacks are so tall.”

However, Brown points out that not all smokestack emissions go elsewhere. Weather variations alter their direction, causing “looping” that brings plumes back down near their origin. Also, he says, “fugitive emissions” escape from other parts of the plant.

To compensate for emissions exceeding local limits, CPV bought emission reduction credits from other companies not using their permitted amounts. But those companies are in Philadelphia, 375 miles away.

CPV ERCs include credits for 75 tons of volatile organic compounds, which the World Health Organization deems unsafe and carcinogenic in any amount. So CPV’s total VOC emissions annually are actually 140 tons, more than twice the local limit. On an average day, the plant would emit a volume of VOCs that could fill a large barn.

Although Sullivan noted that emissions will be continuously monitored “like an electrocardiogram,” the only emissions that will be monitored in that way are carbon dioxide, oxygen, nitrous oxides and sulphur dioxide. The latter two have been found to promote heart and lung disease.

Other emissions include 95 tons annually of fine particulate matter (PM 2.5), more than a quarter ton per day. In addition to promoting and exacerbating respiratory and cardiovascular ailments, a recent study showed its potential to harm fetuses. When women are exposed to high levels of fine particulate matter during her third trimester of pregnancy, the baby’s risk of autism doubles, according to a study published in Environmental Health Perspectives in December by Harvard epidemiologist Marc Weisskopf and his colleagues.

Even small increases in PM 2.5 increase mortality rates, according to a new study by Harvard Environmental Epidemiology Professor Joel Schwartz and his colleagues, published in Environmental Health Perspectives in June 2015. They found that any environmental increases of PM 2.5, even at substantially below the EPA limit, significantly increased rates of mortality from all causes for the 65 and over age group they studied in New England, using Medicare and zip code data.

For every microgram of particle concentration increase, the death rate increased by 1% in the areas they investigated. They focused on places where particle levels were less than 10 micrograms per cubic meter, significantly below the 12 micrograms limit imposed by the EPA, demonstrating that EPA limits on PM 2.5 fail to protect the populace. PM 2.5 generates inflammation throughout the body, stimulating white blood cell production. Among other consequences this causes scabbing in plaque in the arteries, increasing the likelihood of a heart attack.

Smokestacks merely spread particle emissions, so the mortality increase is dispersed over a wider area, says Schwartz, but the same number of people die.

“PM 2.5 emissions could be minimized by using a fabric filter,” he says. “Any emissions can be reduced. It just has to be required.”

But when the EPA tries to further limit emissions, industry sues, Schwartz says. He has observed the incapacitation of the EPA, as Congress shrinks the agency’s budget. He recently attended an American Thoracic Society meeting, where he usually sees a dozen EPA representatives presenting studies on pollution.

“This year maybe one showed up,” said Schwartz. “They have very little money for research or travel.”

Meanwhile, Sullivan, the CPV spokesman, cited the power plant emissions analysis provided by Gradient Corporation, in Cambridge, MA. They explained emissions in terms of equivalencies, for instance asserting that one year at “maximum ground-level exposure to fine particulate matter” would be “equivalent to 3.2 hours mowing the lawn with a gas-powered lawn mower.”

As for Gradient’s consultants, Sullivan described them as “former Harvard School of Public Health professors.” But David Brown, whose doctorate in toxicology is from Harvard, describes them as “apologists” for industrial polluters.

“They make these goofy comparisons that are nonsense,” he says. “They’re ubiquitous. They’re always there, saying there’s no problem. If you want a plant approved, you go to them.”

By segmenting and averaging emissions over long periods and shortening technology operation periods, he says, emissions levels can be calculated that fall below a level designated “major source.” A project designated “major source” necessitates an Environmental Impact Assessment that requires hazards to be more thoroughly investigated. Brown sees such an investigation as crucial for gas compressors and power plants, but avoided by analyses such as Gradient prepares.

“For a major source, they’d have to evaluate all the chemicals coming out of the plant,” says Brown. “Health standards rather than regulatory standards would come into play.”

The EPA process of developing regulatory standards begins with a panel of scientists establishing “health standards,” he says. “Regulatory standards” are revisions of health standards that result from industry representatives’ challenges and legal actions, a process confirmed by EPA spokesperson Enesta Jones.

“A compromise is reached that balances costs and benefits,” says Brown. “Some number of injured are allowed with regulatory standards, to avoid higher costs to industry. Regular reviews are required every so many years, but they never happen, because of cost and political influence. Consequently, regulatory standards are usually much weaker than health standards.”

Jones said EPA officials declined to comment on the record about findings of Brown and Subra that indicate health problems resulting from weak gas regulations. Also asked about those findings, New York State Department of Environmental Conservation spokesperson Wendy Rosenbach said she referred the questions to air quality staff but received no answer.

As a consultant with Southwest Pennsylvania Environmental Health Project, Brown has been studying adverse health effects around fracked gas infrastructure, which, he predicts, will likely become superfund sites.

“Seeing the victims of superfund sites is the saddest thing,” he says. “They usually result from the oversight failures of local government.”

The avoidance of “major source” designation concerns him.

“Without detailed information on ground water releases, air emissions and dispersion into the community, it’s impossible to determine the safety of living near any natural gas facility,” Brown says. “Without an environmental impact assessment, setbacks from schools, hospitals, daycare centers, and nursing homes are not required.”

In such circumstances, he says, “The local health director is the only entity who can require that information on health and safety under the public health code.”

Laws giving local health directors that power date back to epidemics when emergency directives were needed to stop the spread of illnesses, he says.