

Hannah Cole

I am a resident of Dona Ana County and I am asking that you deny Yucca Growth Infrastructure's air quality permit. I live here with many generations of my family and this is our home. I want to continue raising my children here knowing they have a safe and secure future. That future is under threat with this proposed air quality permit. A change to fuel cells has minimal impacts on the suffering we will endure as a result of the gas plant's air pollution. To add 10 million tons of carbon dioxide pollution and a vague estimate of toxic emissions to our active and long-time nonattainment zone would be nothing short of blatant environmental racism. Our metro area is currently 16th worst in the nation for ozone pollution and we have received a failing grade on this air quality standard every single year since 2000. We are already breathing some of the most compromised air in the country. It is unacceptable to invite a new source of hyperscale air pollution into our communities.

The carbon dioxide pollution alone will heat our atmosphere at a much faster pace and promote the formation of even more ground-level ozone. Last summer, my 7 year old suffered a grand mal seizure while on the playground at school because the extreme heat led to electrolyte imbalances. My brother works outside everyday without shade or rest breaks and has nowhere to keep his insulin cool. I can barely pay my electricity bills in the summer as it is. We cannot afford more intense heat. The other toxic air pollutants are extremely dangerous—many of them at very low levels. How am I supposed to send my kids to school knowing what they are breathing in? Knowing it can cause permanent brain damage or breathing complications before they have had a chance to grow up.

Fuel cells also create hazardous waste and the fuel cell provider for this project has a history of illegally dumping this waste and hiding it for several years. This company will likely repeat its bad habits, illegally dumping dangerous and undisclosed chemicals into our public landfills, and we will just have to wait until somebody notices? Our county has and continues to face an illegal dumping epidemic so how can I be sure that these systemic oversight failures we have locally won't continue and expand to include this dangerous and experimental fuel cell operation. A fine for illegal dumping does not undo damage or its spread once our aquifer and soils are contaminated. It also will not re-capture the volatile chemicals that are released into the air when hazardous waste is improperly stored and disposed of.

My family's health and safety should be worth more than the profits of out-of-state corporations. The only defensible options moving forward are to deny this air permit or you must hold a public hearing in-person in Santa Teresa with a component for virtual participation. Materials and the hearing itself must be translated into Spanish and meet any other accessibility needs requested by community members.

I live in Southern Doña Ana County and under no circumstances do I want experimental technology deployed at an unprecedented scale in my backyard. Yucca Growth Infrastructure's gas-powered fuel cell plant is 1,000 times larger than Bloom Energy's biggest existing fuel cell plant. In fact, worldwide, Bloom Energy has developed 1.4 GW of fuel cell technology across more than a thousand locations, yet Yucca Growth Infrastructure is asking for nearly double that (2.46 GW of fuel cells) at a singular location. The largest fuel cell plant in the entire world is more than 30 times smaller than the fuel cell plant under consideration in Santa Teresa. There is absolutely no way to

know, with certainty, what the actual pollution levels will be given the tremendous size differential, and thus gap in data, between operational fuel cell plants and this theoretical plant proposed by Yucca Growth Infrastructure. Betting the livability of our county on this unpredictable and unproven plan would be a total capitulation and betrayal of your so-called values: "protects the public health of New Mexicans...by preventing the deterioration of air quality;" "protect and restore the environment...foster a healthy NM for present and future generations"

Though approximations of annual air pollution were provided, the testing used an extremely weak methodology leaving us, ultimately, with pseudoscientific guesses that have large margins of error. Estimated pollution levels for this gas-powered fuel cell plant are based on only three 4-hour pollution tests from a very small unit (only 65 kW). This is a far cry from thousands of sweltering fuel cells operating 24/7 at maximum output in close proximity, all in the scorching heat of our open desert. The lack of rigorous testing at even this small of a scale is lazy and very concerning, especially given that the gas power plant Yucca Growth Infrastructure wants to build is 37,000 times bigger than this unit.

A 15% "safety margin" was added to the numbers provided by the applicant. Safety margins are not usually added if a company is confident in the accuracy of their pollution estimates. Even small variations from this superficial test will result in massively different levels of pollution and given that the plant will be 37,000 bigger than the testing unit, a 15% safety margin is completely insufficient—it could work as a margin for a single unit, but not the entire plant. If a unit has a 0.01% chance of failing (sounds promising right?), the odds of 37,000 of those units working perfectly at the same time is 2.47% (pathetically low feasibility). That means there is a 97.53% chance that the plant will experience at least one failure. What will the exact level of redundancy be? Will more fuel cells be rubberstamped or pollution levels overlooked in five years or less due to age-related inefficiencies?

What about cases of catastrophic failure? Are we approving those deadly incidents of pollution in advance without any real data informing us of the risks at this scale? Highly flammable hydrogen under high pressure only needs a microscopic crack to leak out, ignite, explode, and level entire neighborhoods and schools while sending shockwaves into nearby counties. Assuming this risk, an act of gross negligence, at a scale that has never even remotely been demonstrated in practice would be unbelievably careless. These permits must be denied outright. If further deliberation is desired, a public hearing in Santa Teresa is non-negotiable.

Sample 3 — Issues with pollution monitoring & lack of controls

The proposed design has an individual exhaust stack on each fuel cell, of which there will be 2,275. It would be inefficient to place monitors and controls on each individual stack and there are NO proposed pollution controls on any of these stacks. How, then, will this project show evidence of their compliance with emissions limit requirements under Title V? Has there been or will there ever be upstream fuel testing of methane gas to anticipate the composition of these fuel cells' emissions? How exactly will NMED enforce emissions standards without direct, long-term, continuous monitoring? Or isolate their deleterious impact on air quality without an accurate assessment of localized pollution?

A fuel cell can continue to generate electricity or maintain operating temperatures while experiencing catalyst degradation which causes a massive spike in the release of carbon monoxide or Volatile Organic Compounds (VOCs). This project would need to centralize the 2,275 individual

stack emissions into an exponentially smaller number of exhaust systems so that Continuous Emissions Monitoring Systems (CEMS) installed on these central exhaust systems can provide real-time, accurate data about operational compliance. As it is, this design plan completely fails to provide monitoring conditions that are "practically enforceable" under 20.2.70.302.B NMAC.

A proposal, such as this one, that relies on computer simulation modeling instead of actual, measured air pollution at scale is invalid, untrustworthy, and far from what residents of Doña Ana County and New Mexico deserve. What data was used to train these models? When and where was this data collected? What proportion of those involved in the development of this model have, at any time, received money from the corporations involved? How much? If NMED allows group testing for this project, 99% of the exhaust stacks at this facility will never be physically tested during the entire life of the Title V permit. This creates an unmonitored loophole that violates the Clean Air Act's mandate for continuous compliance.

We know the pollution approximations provided are based on an extremely lazy testing methodology and while we were not told whether these 4 tests were even done on-site or during peak temperatures, we can safely assume the applicants cut corners here as well in an attempt to fast track this approval. As I write this, Project Jupiter is draining an undisclosed amount of water from our shared aquifer on a daily basis. Given the statistical invalidity of their pollution estimates, approving this air permit under any circumstance would be to allow this project to introduce unmitigated and undisclosed hazards into our air without consequence.

Children attending Santa Teresa Elementary School will sit innocently, every day, LESS THAN ONE MILE from this pollution. Three other schools, an elder care center, and three public parks sit within around 4 miles of this project. Deny this air permit. Gambling with the fragile health of our children and elders would be a complete defilement of the authority vested in you.