

Letters to the Editor
The Meadville Tribune
947 Federal Court
Meadville, PA 16335
trinune@meadvilletribune.com

July 5, 2010

I am writing in response to an op-ed piece by Gary DeSantis entitled "Tired Of Lame Pollution Predictions."

Opponents of the proposed tire-to-energy plant originally planned for Erie and now planned for Meadville have sound reasons for their concerns. It is not fear-mongering, it is based upon sound scientific evidence.

Tire-derived fuel does NOT burn cleaner than coal. It is really that simple.

Smaller, lower molecular weight, carbonaceous molecules, such as methane (CH₄) with its single carbon atom and four hydrogens, are the cleanest burning fuels. Since there are fewer chemical bonds, there is a greater likelihood that the fuel will completely oxidize, which is the ultimate purpose of the combustion process. As the complexity and the molecular weight of the fuel increases so does the plethora of products from the combustion process, i.e., what we refer to as "pollution." Thus, methane burns cleaner than gasoline (a mixture of hydrocarbons with anywhere from five to twelve carbons), which, in turn, burns cleaner than coal. (Coal is a complex fuel with no specific chemical formula but on average contains about 150 carbon atoms.)

Tires are mainly formed from natural and synthetic rubber, a high molecular weight, polymeric material. Polymers are long chains of repeating units (picture a train formed from hundreds of individual train cars), which can be anywhere from hundreds to thousands to hundreds of thousands of carbons in length, such as is the case of the rubber in tires. Tire-derived fuel will produce more emissions and a greater variety of emitted compounds than does coal because of the increased complexity of the composition, or chemical make-up, of the fuel.

Furthermore, studies conducted by the Mastral research group and published in well-respected, peer-reviewed scientific journals between the years 1999 through 2003 have all concluded that under a wide range of combustion conditions the highest Polycyclic Aromatic Hydrocarbon (PAH) emissions were produced when using tires as a fuel as compared to coal or even coal-tire mixtures. These studies were conducted using the same fluidized bed combustor as that being proposed for the Meadville plant.

PAHs are a group of compounds whose toxicity, owing to their mutagenic and carcinogenic properties, is extremely well-documented. Members of this group, and a related group of compounds the Dioxins/Furans, which will also be released from the proposed facility, can start to have an impact upon ecosystem health at the part per trillion level. Air pollution control devices do not work down to this level.

Having taking the time to seek out and review these studies, I would be happy to supply electronic versions to anyone interested in reading them. I have done so for both the Erie and Buffalo-Niagara sections of the Sierra Club, the Erie County Health Department, and for KEEP, the citizen's action group that formed in order to fight the establishment of this plant in Erie. It is based upon these studies, as well as numerous discussions with respected scientists in various fields of expertise (air quality, human health impacts, environmental scientists, etc.) , that ALL of these groups have issued statements and reports in opposition to this facility. I am certain that electronic versions of these reports, along with their cited

sources, are also available to anyone person looking to understand the scientific basis for the concerns surrounding this facility.

History has shown us time and again that corporations only have short-term vision, focused solely upon quarterly profit that neglect the very real, long-term impacts of their processing. Look at what is happening in the Gulf of Mexico right now, not to mention Love Canal, the Berkeley Pit, the recent explosion of a Marcellus Shale rig, the West Valley Nuclear Repository, the legacy of mercury contamination in our Great Lakes owing to our industrial past and the perpetual violations of Massey Energy with regard to their Mountain Removal coal mining (that led to the deaths of 17 miners a few months ago), to name but a few examples. Do you see any of the corporation CEOs living near these sites? Would they? No. Because given the money they will move far away from the very environmental degradation that they help to create. This is the hard reality. It is called 'Environmental Justice'- the very real, scientifically proven fact that the people that are paying the price with regard to environmental degradation are the poorest members of our society because they are the ones to welcome any corporation, any job, without understanding the long-term consequences of those choices. What good is a job if you and your children and your children's children are dying of cancer? Many of the very jobs people fight for (like those being offered by this proposed plant) don't even provide adequate health insurance to cover the environmental impact the job they are providing will have on the people working there, more or less all the innocent people who are not working there but nevertheless live in the wake of the facility.

Government agencies like the PA Department of Environmental Protection (DEP) are limited by what they can do. If a corporation turns in the proper paperwork and promises within that paperwork that it will operate safely, the DEP has to issue the permit. The opinions and desires of the community are not taken into account. The only recourse with regard to permitting is to find an issue with the paperwork as providing opposing scientific evidence has no bearing. The preponderance of corporations that pay DAILY fines to the DEP and the EPA owing to environmental violations (case in point the recent ruling against Erie Coke) provides the reality behind the smoke screen issued as part of the permitting process: corporations pollute and they don't care about the impact of that pollution on the surrounding community- they care about profit, even if that profit comes at the expense of people and of the Earth, our life-giving planet.

This is reality. It is the cold, hard, bare truth based upon science and history. We, as a people, have to see it, have to face it, and have to move forward with this understanding. This proposed plant does not represent a move forward- it is not even renewable energy since half of a tire is petroleum-based- it is a move back to our industrial and dirty past. With the facts and the lessons-learned as our foundation it is time to move forward by staving-off the temptation that this plant offers and looking for a truly renewable energy source and the clean jobs that come with it.

Dr. Sherri A. Mason is an Associate Professor of Chemistry, coordinator of the Environmental Sciences program, and coordinator of Community-Based Research at SUNY-Fredonia. Having recently spent her sabbatical leave at the Air Pollution Research Center on the University of California at Riverside campus, her research is focused upon the influence of combustion emissions on local-to-regional scale atmospheric chemistry. Her work has been supported by the Great Lakes Commission, the National Science Foundation, and the NASA Earth System Science Fellowship program.