



February 23, 2017

Sent via email

Dear Members of the New Hanover County Commission and the Planning Department Director O'Keefe,

Clean Air Carolina and Medical Advocates for Healthy Air are very concerned about the proposal being considered by New Hanover County that will increase the likelihood that industries emitting toxic air pollution will be in greater proximity to residential neighborhoods and schools. With regard to the Industrial Special Use matter being proposed we would like to offer the following comments on the health impacts of hazardous air pollutants.

Background

The U.S. Environmental Protection Agency (EPA) classifies air pollution as either criteria air pollutants or hazardous air pollutants (HAPs), also known as air toxics. Criteria air pollutants include six of the most common air pollutants: carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide. Air toxics are known to cause serious human health problems including neurological disorders, respiratory problems and cancer.¹

The Clean Air Act recognizes 187 substances as HAPs, some of which are commonly known—benzene, arsenic, mercury, and dioxin.² HAPs are released in the atmosphere by various sources³:

- Mobile sources, including automobiles, buses, trucks
- Non-road sources like farm and construction equipment, marine engines and air craft
- Point sources like coal-fired power plants, paper mills, and industrial facilities

HAPs present a serious health and environmental challenge. The Clean Air Act identifies HAPs as substances which are potential carcinogens, mutagens, teratogens, highly neurotoxic, able to cause reproductive dysfunction, and acutely or chronically toxic. The EPA estimates that benzene, 1, 3- butadiene, formaldehyde, and acetaldehyde are responsible for nearly all of the cumulative lifetime cancer risk from highway mobile sources.

Children are highly vulnerable to the effects of air toxics. Medical studies have found links between formaldehyde and childhood asthma⁴, the exposure of pregnant women to polycyclic aromatic hydrocarbons (PAH) with reduced IQ and behavioral problems for their children,^{5,6} exposure to toluene isocyanate and manganese with negative effects on developing lungs and neurological systems.^{7,8}

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Additionally, even short-term exposure to acrolein leads to respiratory effects and irritation of the eyes, nose, and throat.⁹ And it is well known that in-utero mercury exposure has a devastating effect on children's neurological development.¹⁰ An estimated 11,811 children are born with neurological problems each year in North Carolina, and these children have blood methyl mercury levels above recommended EPA levels.¹¹ The major source of mercury emissions in North Carolina is coal-fired power plants.

*The EPA's 2013 Report on America's Children and Environment (ACE) suggests that 7% of total children under the age of 17 years live in areas with HAPs exceeding 1-in-10,000 benchmark for cancer. 56% of American children live in areas with HAPs exceeding benchmarks for health effects other than cancer.*²

North Carolina's Toxic Releases

In 2010, North Carolina ranked 8th in the country for our high levels of toxic air pollution from coal-fired power plants. According to EPA's toxic release inventory, all sources combined emitted 34 million pounds of air toxics and 1.5 million pounds of carcinogens in North Carolina in 2010. In the data required of industrial polluters, in 2010 nearly 50,000 pounds or more of known carcinogenic air toxics were released into the air of each of following counties (listed in descending order by amount): Columbus (197,082 lbs.), Wilson (126,923 lbs.), Haywood (113,591 lbs.), Brunswick (103,151 lbs.), Montgomery (85,294 lbs.), Chatham (78,640 lbs.), Rowan (76,664 lbs.), Wilkes (57,925 lbs.), Craven (55,174 lbs.), and Chowan (49,307 lbs.) counties.¹²

We strongly urge you to consider the health impact on residents of New Hanover and surrounding counties in your discussion of changes to the Special Use Permit Process for Industrial Development. New Hanover County, one of the smallest counties in the state, is ranked fifth for the number of Title V facilities. These are major sources of air pollution. In contrast, Mecklenburg County, only has three Title V facilities. With coastal winds moving air pollution throughout the area, you need to take special precaution to limit both the number and the placement of industries emitting toxic air pollution in New Hanover County to protect public health as well as your tourism industry.

For cleaner air,



June Blotnick

Executive Director

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A Program of Clean Air Carolina

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