

**From:** Amanda Barrick <ducksinarowyoga@gmail.com>  
**Sent:** Thursday, February 13, 2020 12:12 PM  
**To:** Michele Decoteau  
**Subject:** Concern over Asphalt plant

Good morning, i am writing to express my concern that the asphalt plant is still appealing to be approved. I am a long time resident of Lyndeborough, and live right on Rt 31 just a few miles from the proposed plant. I also live next door to the elementary Pre-K and kindergarten for our towns. Please find attached documentation and sited material proving the health effects to our residents, especially those who use Goss Park. I would call this plant plan an absolute health catastrophe should the board see any benefit to allowing this to be allowed to move in. It comes down to the fact that the health of our community and our children who will be spending time so close to this proposed facility is at stake. I have also sited the decline in property value for families not concerned about the apparent health risks and air pollution that such a facility produces. I will not be available for the zoning board meeting this coming week, but wish for my concern to be represented as a resident and mother of 2 children who love living in our clean country town.

Thank you for your time,  
Amanda Barrick  
202 Forest Rd, Lyndeborough

According to the federal Occupational Safety and Health Administration, exposure to asphalt fumes can **cause headaches, skin rashes, fatigue, reduced appetite, throat and eye irritation, and coughing**. Asphalt paving workers, for example, have reported breathing problems, asthma, bronchitis, and skin irritation, according to OSHA, and studies have reported lung, stomach, and skin cancers following chronic exposures to asphalt fumes.

source: <http://www.osha.gov/SLTC/asphaltfumes/index.html>

According to the National Institute for Occupational Safety and Health: **asphalt fumes are considered potential occupational carcinogens**.

Asphalt plants mix gravel and sand with crude oil derivatives to make the asphalt used to pave roads, highways, and parking lots across the country. These plants release millions of pounds of chemicals to the air during production each year, including many cancer-causing toxic air pollutants such as arsenic, benzene, formaldehyde, and cadmium. Other toxic chemicals are released into the air as the asphalt is loaded into trucks and hauled from the plant site, including volatile organic compounds, polycyclic aromatic hydrocarbons (PAHs), and very fine condensed particulates. [EPA]

**Asphalt Fumes are Known Toxins.** The federal Environmental Protection Agency (EPA) states "Asphalt processing and asphalt roofing manufacturing facilities are major sources of hazardous air pollutants such as formaldehyde, hexane, phenol, polycyclic organic matter, and toluene. Exposure to these air toxics may cause cancer, central nervous system problems, liver damage, respiratory problems and skin irritation." [EPA]. According to one health agency, asphalt fumes contain substances known to cause cancer, can cause coughing, wheezing or shortness of breath, severe irritation of the skin, headaches, dizziness, and nausea. [NJDHSS] Animal studies show PAHs affect reproduction, cause birth defects and are harmful to the immune system. [NJDHSS] The US Department of Health and Human Services has determined that PAHs may be carcinogenic to humans. [DHHS]

**Flawed Tests Underestimate Health Risks.** In addition to smokestack emissions, large amounts of harmful "fugitive emissions" are released as the asphalt is moved around in trucks and conveyor belts, and is stored in stockpiles. A small asphalt plant producing 100 thousand tons of asphalt a year may release up to 50 tons of toxic fugitive emissions into the air. [Dr. R. Nadkarni] **Stagnant air and local weather patterns often increase the level of exposure to local communities.** In fact, most asphalt plants are not even tested for toxic emissions. The amounts of these pollutants that are released from a facility **are estimated by computers and mathematical formulas rather than by actual stack testing**, estimates that experts agree do not accurately predict the amount of toxic fugitive emissions released and the risks they pose. According to Dr. Luanne Williams, a North Carolina state toxicologist, 40% of the toxins from asphalt plant smokestacks even meet air quality standards and for the other 60% of these emissions, the state lacks sufficient data to determine safe levels.



Even if an asphalt plant meets all air pollution standards, people living nearby are still exposed to cancer-causing substances that can cause long-term damage. These standards are based on the principle of "acceptable risk", and assume each state will enforce the standards, the plants will operate perfectly, and the owners can be trusted to operate on an honor system where they are expected to follow all the laws and regulations that apply to their facility without any government oversight. In the majority of cases, it is unknown whether the 'theoretical' air emissions predicted by computer models and used by plant owners accurately reflect air emissions from a plant's daily operations. **We must put safety first and shut down or overhaul the current system that fails to protect communities from the daily health hazards of asphalt plant pollution.**

## Pollution

<http://www.besafenet.com/Asphalt.pdf>

Asphalt plants mix gravel and sand with crude oil derivatives to make the asphalt used to pave roads, highways, and parking lots across the U.S. These plants release millions of pounds of chemicals to the air during production each year, including many **cancer-causing toxic air pollutants** such as arsenic, **benzene**, formaldehyde, and cadmium. Other toxic chemicals are released into the air as the asphalt is loaded into trucks and hauled from the plant site, including volatile organic compounds, polycyclic aromatic hydrocarbons (PAHs), and very fine condensed particulates.[EPA]

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**Health Impacts & Loss of Property Value.** The Blue Ridge Environmental Defense League (BREDL), a regional environmental organization, has done two studies on the adverse impacts on property values and health for residents living near asphalt plants. **A property value study documented losses of up to 56% because of the presence of a nearby asphalt plant.** In another study, nearly half of the residents reported negative impacts on their health from a new asphalt plant. The door-to-door health survey found 45% of residents living within a half mile of the plant reported a deterioration of their health, which began after the plant opened. The most frequent health problems cited were high blood pressure (18% of people surveyed), sinus problems (18%), headaches (14%), and shortness of breath (9%). [BREDL]

full report in: <http://www.besafenet.com/Asphalt.pdf>

## Federal regulation of asphalt plant emissions is inadequate to protect public health.

EPA's emission estimates (AP-42) are inadequate to protect worker health and public health. **Therefore, citizens must join together to protect their communities.** Any county or town faced with an asphalt plant proposal should push for setbacks from residences and community buildings, site specific health based air pollution modeling and monitoring, enclosures for load-out zones, and preferably a zero emissions asphalt plant, with **total** containment of air pollutants.

**BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE** [www.BREDL.org](http://www.BREDL.org) PO Box 88 Glendale Springs, NC 28629 (336) 982-2691 [BREDL@skybest.com](mailto:BREDL@skybest.com) <http://www.bredl.org/pdf/Young&McQueen071004.pdf>

## The EPA Worst Source model

The EPA Worst Source model predicts that the acceptable ambient levels (AALs) would be exceeded 1.8 miles (**3000 meters**) from the plant (Attachment C). Arsenic, a toxic heavy metal, would exceed AALs 2.17 miles (3,500 meters) from the plant (Attachment D).

[http://www.bredl.org/pdf/comments\\_LAZ\\_071023.pdf](http://www.bredl.org/pdf/comments_LAZ_071023.pdf)

Blue Ridge Environmental Defense League

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