

Michael Miller, M.D. F.A.C.S.

Please find the attached brief on the health hazards associated with living in proximity to a concrete batch plant and exposure to particulate matter and volatile chemicals found in wind-blown concrete dust.

**Commentary from Michael J. Miller, M.D., F.A.C.S.
Chief, Section of Plastic and Reconstructive Surgery
Division of Surgical Oncology
Banner M.D. Anderson Cancer Center
Gilbert, Arizona
Part-Time Resident of Alto, New Mexico**

I appreciate the opportunity to comment on the plan to locate a concrete batch plant on Route 220. I have had a home one mile from the site for 15 years. I have been a cancer surgeon for more than 30 years. I believe that allowing this facility to be built at the proposed location will adversely affect the area's scenic beauty, air quality, clear skies, dark nights, and quiet environment- unique qualities that drew me and many other people from around the country to live and invest in this area.

There are significant health risks to children and adults living in proximity to concrete batch plants associated exposure to particulate matter and volatile chemicals found in wind-blown concrete dust.

Exposure to airborne concrete dust causes irritation of the eyes, skin, throat, and upper respiratory tract, especially in sensitive individuals. Up to 30% of cement dust is composed of crystalline silica, invisible particles less than 5 micrometers in size (Gharpure, Heim et al. 2021). Silica is a carcinogen (Shahbazi, Morsali et al. 2021), and inhaling microparticles can lead to incurable lung disease (silicosis) (Reynolds and Jerome 2021) and to lung cancer. People with prolonged exposure to cement dust have a higher incidence of lung cancer compared to the general population (Houot, Homere et al. 2021). The risks are such that the Occupational Health and Safety Administration (OSHA) imposes strict safety regulations for on-site workers. Workers with significant exposure must wear personal protective equipment such as gloves, goggles, and even HEPA filter respirators. Unfortunately, the safety regulations do not apply to people living in proximity to concrete plants. The wind carries cement dust particulates many miles from the work site. For example, people living near concrete batch plants in Harris County, Texas, experience blowing dust that covers their roofs, cars, and barbecue pits. At times they can't go outside or have friends over (West 2020). Wind-blown crystalline silica causes increased incidence of lung and laryngeal cancer in people living within 3 kilometers of concrete batch plants (Eom, Cho et al. 2017). In addition to the increased risk of cancer, exposure to plant emissions is associated with increased risk of hospital admission for cardiovascular or other respiratory disorders, particularly in children (Bertoldi M 2011). Children are especially vulnerable to exposure hazards. One study found that children living and attending school in an urban area exposed to cement plant emissions show a chronic bioaccumulation of toxic metals. The authors of conclude that primary prevention policies are needed to protect children's health from cement plants emissions. (Di Ciaula 2021)

In summary, it is essential to not allow the concrete batch plant to be built at the proposed location on Route 220 in Lincoln County in proximity to residential and recreational areas, including a children's camp. It would pose an unacceptable and unnecessary risk to health.

References:

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Contact Information:

Michael J. Miller, M.D., F.A.C.S.
Banner M.D. Anderson Cancer Center
2946 E. Banner Gateway Drive, Ste. 450
Gilbert, Arizona 85234
Phone: 480-256-5293
Fax: 480-256-4392
Email: Michael.Miller@bannerhealth.com