

# ***MET Associates***

**Dr. David L. Mitchell, Ph.D.**  
**MET Associates**  
**P.O. Box 70**  
**Dayton, Texas 77535**

***Forensic and Air Quality Meteorology***

***Particulate Matter Exposure***  
***Asphalt Inc, LLC. Rock Crushing Plant***  
***Burnet, Texas***

My name is Dr. David Mitchell. I am a PhD in Atmospheric Science and Meteorology. I am a member of the National Association of Environmental Professionals. I spent much of my career in the energy industry by working for companies such as Conoco, Tenneco, and British Petroleum. I have worked on air pollution problems for the past forty nine years. I have modeled many of the air pollution and water pollution scenarios I have been charged with. I have also worked in teams with other professionals such as industrial hygienists, mineralogists, toxicologists, geologists, and others.

I was asked to construct a model of exposures using the data provided by Asphalt LLC. I wrote a report explaining some of my findings. My understanding is that this report was given to both the Texas Commission on Environmental Quality (TCEQ) and the applicant, Asphalt LLC. I have been furnished and have read the TCEQ's Directors response to the Motion to Overturn and the attendant article the Director cites in her papers entitled "Ambient Monitoring of particulates, including crystalline silica, near APO facilities, final report. (2024)".

I make the following observations:

1. I was puzzled to learn that the TCEQ approved a permit so close to a community and especially so close to a children's camp given the asbestos and silica risks at issue.
2. The discussion in the Director's response and the measurements from the paper do not change my firm belief in the opinions contained in my report. I was surprised as a scientist that my report was not commented on other than to mention the receipt of it in a footnote. The spread of the particulate that I illustrated should be concerning to those involved in safeguarding public health.
3. It is important to underscore that the model was made from the data that Asphalt LLC supplied. I stated in my report and continue to believe based on my training and experience that Asphalt's exposure numbers contained in their permit application are unrealistically low. I do not believe their exposure estimates account for the magnitude of exposure from the rock crusher, the spikes in exposure common in these operations, the massive releases due to blasting operations of a new quarry, the exposures from tailings, and other issues.
4. The article cited in the response does not give me the comfort in this situation that it gives the Director. Putting aside some of the methodological issues in the study, the real problem is that the paper shows that rock crushing plants emit silica, that the silica travels, and can put local communities at risk. The dangers associated with silica exposure are real. The levels of crystalline silica contained in the study are potentially hazardous because they exceed action levels published by the National Institute for Occupational Safety and Health and the American Conference of Governmental Industrial Hygienists.

5. The Director's response does not mention asbestos exposure. This is especially troubling. I have been involved in the forensic meteorology of asbestos fiber drift for decades. The risk of mesothelioma from fugitive emissions from mining and other industrial operations is real. There is no safe level of exposure to asbestos.
6. I would respectfully suggest to the Commissioners that they be cautious in this situation. Some of the disease risk is short term but many of the ailments associated with asbestos and silica are latent diseases that may show up decades later.
7. I would also suggest that the Commissioners deny the permit at this time and take the following steps:
  - a. Assemble a team of scientists to include: a Certified Industrial Hygienist (CIH), a minerologist, a toxicologist, and a forensic meteorologist.
  - b. Require the applicant to give the TCEQ all of the mineralogical information it possesses. If the minerologist determines that samples are needed to determine silica or asbestos content, require that too.
  - c. Allow the scientists time to make their findings in writing and require that the community be presented with their report(s).
8. I remain available to the Commissioners should they have any questions concerning my report or this statement.

I certify that the foregoing information is true and accurate to the best of my information and belief. All opinions are held by me to be true and accurate within a reasonable degree of meteorological probability and that any estimations, interpolations or assumptions that have been made were done so with expert accuracy by a professional meteorologist.

Signed,



Dr. David L. Mitchell, Ph.D.  
Consulting Forensic Meteorologist  
MET Associates  
P.O. Box 70  
Dayton, Texas 77535