



November 19, 2012

It is my understanding that some local residents have expressed concerns regarding potential adverse impacts on air quality, despite state of the art emission controls, on Costco's existing property in Wheaton, MD.

As a practicing physician and environmental consultant, board certified in Internal Medicine by the American Board of Internal Medicine (ABIM), Occupational and Environmental Medicine by the American Boards of Preventative Medicine (ABPM), I respect the concerns of the residents, but I cannot find a rational, scientific basis for them.

In reaching these opinions I have relied on the comprehensive sampling data for a similar Costco gas station in Sterling, VA as well as modeling data reported by David Sullivan (November, 2012) for the proposed site in Wheaton. This report provides an 95% upper limit cancer risk projections based upon a maximal exposure estimate for each substance, and assuming a 70 year lifetime exposure period. This report also clearly shows that the planned facility will be in compliance with Federal and State regulations in terms of air quality and ambient noise levels. This includes the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, lead, nitrogen dioxide, ozone, particulate pollution (PM<sub>10</sub> and PM<sub>2.5</sub>) and sulfur dioxide. It must be emphasized that these regulations provide a wide margin of safety and are protective of public health, including sensitive populations.

There are four volatile organic compounds (VOCs) which have cancer potency scores from the US Environmental Protection Agency (USEPA) Integrated Risk Information System (IRIS) and are possible components of gasoline. These are benzene, 1,3-butadiene, formaldehyde and acetaldehyde. National guidelines or regulations for monitoring non-occupational air levels of these substances do not exist; therefore most experts rely on the California Air Resource Board (CARB) guidelines which have an action level of 10 in one million. The November 2012 Sullivan report projects risks to be far below this action level or any level of concern for local residents.

I would further like to address concerns regarding the recent IARC decision on diesel fumes as a "known carcinogen". While the decision is relevant to developing countries, where regulatory measures on air emissions are wanting, the United States is far less affected due to existing stringent requirements on such emissions.

Bolstered by changes in the NAAQS in the past four decades, the EPA has reduced the standard for diesel fuel sulfur levels, particulate emission, and nitric oxide emission by more than 90 percent. As a result, exhaust from modern diesel engines is qualitatively and quantitatively

different from traditional diesel exhaust (TDE). Modern diesel engines burn ultra-low sulfur fuel and emit substantially less air pollutants, "New Technology Diesel Exhaust" (NTDE), than older engines.

Furthermore, the IARC decision is heavily weighted on studies initiated in the 1950s on miners where the exposure levels were enormously higher. Thus, their decision does not apply to current technologies in modern diesel engines and fuels.

Current air quality standards in this country are already based on the assumption that traditional diesel exhaust is a possible carcinogen. Changing the classification of diesel exhaust would have no impact on current standards. In fact, the cancer risk from environmental exposure to diesel exhaust at the proposed Wheaton gas station is negligible; there is a much greater risk of cancer from other sources than from low level exposures to diesel exhaust in the US. Finally, no diesel pumps have been or are proposed for the Wheaton gas station by Costco.

Lastly, I am aware of concerns about asthma. Based on the thorough dispersion modeling performed for the proposed Costco Wheaton gas station, as well as the low number of delivery vehicles, particulate matter will be far below EPA limits. These standards were set by a very large panel of experts after decades of research, and are enforced by the EPA to protect our most vulnerable populations. These are essentially negligible risks. There are countless activities of daily living and other exposure scenarios that pose far greater risks than the proposed gas station.

With respect to the special exception criteria, it is my professional opinion that this proposed use will not adversely affect the health or general welfare of the residents, visitors or workers in the area based on available site specific scientific data.

My opinions are based on 30 years of experience with environmental projects, and review of scientific and medical literature. Please see attached list of references.

Should you require additional information, please do not hesitate to contact me.

Sincerely,



Kenneth H. Chase, MD, FACOEM  
President

Enclosure (1)



## References

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