10 E. Lee St., Apt. 1409 Baltimore, MD 21202 February 14, 2020

Chairman Kumar Barve House Environment and Transportation Committee Maryland House of Delegates

Dear Chairman Barve and Members of the Committee:

I am writing this letter in support of HB 517. I have been a Maryland resident for nearly 15 years, and I have 30 years of experience with Federal regulation in the area of worker safety and health. I served as an Attorney and Counsel for OSHA Safety Standards at the U. S. Department of Labor under six Presidential Administrations from 1975 through 2004. During that time, I was responsible for advising OSHA on compliance with various Executive Orders that directed us to use cost-benefit (or benefit-cost) analysis in the development of occupational safety standards. My experience in this area has led me to conclude that cost-benefit analysis has serious limitations as a tool for determining the appropriate approach for addressing environmental issues, whether they be in the workplace or in the environment at large. The use of cost-benefit analysis will not enhance, and will usually work against, the kinds of environmental protections that HB 517 is designed to address.

We often hear people speak of cost-benefit analysis (CBA) as if it were a "neutral tool" for evaluating regulatory activity. However, CBA is not neutral in its application. If it were neutral, it would need to be equally capable of supporting more stringent regulation as it does weaker regulation. This is clearly not the case. From my 30 years of experience with regulatory analysis and the use of CBA by the Office of Management and Budget, I never encountered a regulatory action where CBA was used to support the strengthening of a proposed OSHA standard. Numerous studies of examined the purported neutrality of CBA in environmental matters and have found such neutrality severely lacking. (See, for example, Driesen, David M., "Is Cost-Benefit Analysis Neutral?", Syracuse Univ. College of Law Faculty – Scholarship, 2005 (https://surface.syr.edu/lawpub/17); F. Ackerman, L. Heinzerling, R. Massey, "Applying Cost-Benefit to Past Decisions: Was Environmental Protection *Ever* a Good Idea?", Admin. L. Rev., 2005 (http://ssrn.com/abstract=576161).)

It is tempting to look to CBA as if it were a simple, rational evaluation of the costs and benefits of proposed actions. However, evaluating and quantifying the variables involved in environmental action is far more problematic and complex than it may appear at first glance. How does one compare, for example, the costs of cleaning up a river with the benefits derived by residents and other users of that river? And calculating the costs of compliance are the simplest part of the analysis. For example, determining what engineering controls are needed and what they will cost may be difficult, but engineering firms make these determinations all the time. Further, these determinations are generally quantified in time and dollars. And if control measures are to be implemented over time, the initial cost figures are based solely on technology that are available at the time of the estimate. They obviously do not incorporate new methods and technological advances which may become available. My experience in the regulatory area is that in many cases, the actual cost of compliance with a standard was far less than originally anticipated. In OSHA's

regulation of vinyl chloride, for example, actual engineering costs of compliance were a mere fraction of the industry's projected costs at the time of the proposed rule.

On the benefits side, it is impossible to quantify with any certainty the benefits to health and the environment that will be derived from various regulatory approaches. Taking the example of cleaning up a river: one may be able, as a first step, to estimate the number of people who are exposed to or use the river and are directly affected by the proposed controls. However, the potential benefits of cleaning up the river may be vast indeed, ranging from improved fishing to reduced exposure to disease, as well as other benefits such as increased local revenues from increased recreational use, which may not even be determinable at the time.

Cost-benefit analysis is, at its core, an economic construct. As such, the process seeks to express all the costs and benefits of regulatory actions in monetary terms. Granted, it is always necessary to calculate the dollar costs of implementing environmental controls. But one cannot adequately justify environmental costs with a comparable dollar valuation of benefits. The benefits of environmental regulation are simply too complex and varied, and they are not amenable to dollar costing. Cost-benefit analysis is most problematic, in my opinion, when it attempts to "monetize," or give a dollar value to, life, health and nature itself. Unlike manufacturers and installers who set prices for equipment, the earth does not set dollar prices for a clean environment. Economists, therefore, create artificial prices for health and environmental benefits. They do this in many cases by calculating what people would be willing to pay to avoid a specific health or environmental risk. This "willingness to pay" model is an effort to provide a market value for things that are not traded in the marketplace. But the dollar values ascribed to one's "willingness to pay" to avoid negative environmental outcomes do not in any meaningful way reflect the true value of the benefits of environmental actions.

Further, cost-benefit analysis routinely ignores the many benefits that cannot be quantified. For example, when OSHA regulated formaldehyde exposure in the workplace, the CBA focused solely on deaths per year; the rule would prevent one death per year, so the price tag for the rule (the total cost set against the single valued benefit) was calculated at \$72 billion per life saved. However, among the other benefits of the regulation---not quantified in the CBA---were "reduced or avoided burning eyes or noses, sore or burning throats, asthma attacks, chronic bronchitis, allergic reactions, dermatitis, and skin sensitization." OSHA noted that over 500,000 American workers were being exposed regularly to formaldehyde at levels that could cause one or more of these illnesses or discomforts. Because the CBA could not quantify these benefits, it essentially gave them a zero dollar value. This case study is a good Illustration of the ways in which cost-benefit analysis provides, at best, a very simplistic and erroneous picture of the impacts of regulatory actions.

In conclusion, one should not be misled into believing that the use of cost-benefit analysis will adequately address the issues of environmental protection that are provided for in HB 517. Incorporating environmental protection into the Maryland constitution is essential.

Very truly yours,

George L. Henschel