My name is Michael Hendryx. I am a Professor in the School of Public Health at Indiana University, Bloomington. I would like to thank the EPA for recognizing and responding to the issue of climate change, and especially for recognizing the critical contribution that burning coal and other fossil fuels makes to the climate change problem and to poor public health. However, the rule as proposed is incomplete and fails in my view for two interrelated reasons. First, it fails to recognize the public health problem created not only by fossil fuel combustion, but also by the extraction, processing and transportation of fossil fuels. Second, the proposed state-specific emission goals provide insufficient weight to the contributions that renewable fuels must make to reducing climate change and adverse public health impacts.

First, regarding the problem of extraction, processing and transportation: coal, natural gas and other fuels do not simply appear at power plants ready for use. Coal mining is itself a highly polluting industry that uses fossil fuel-based explosives and machinery, destroying landscapes and fouling local air and water. Millions of tons of coal are transported using oil and diesel burning engines in trucks, barges and trains. Coal is processed at local facilities that generate water and air pollution. Over the past eight years, my colleagues and I have published over 25 research papers in peer-reviewed journals that document serious public health problems for people who live near coal mining and processing sites. People in these communities are more likely than those in non-mining communities to suffer from cancer, heart and lung disease, and poor birth outcomes including higher rates of birth defects. We have documented that residential communities near surface coal mining and processing sites have elevated levels of particulate matter in ambient air. The dust collected from these residential areas contains silica, aluminum, molybdenum and other metals, and chemical compounds including polycyclic aromatic hydrocarbons. In one study, we found that levels of ultrafine particulate matter collected from coal mining communities was comparable to that found in large urban settings. Laboratory studies indicate that the particulate matter causes vascular dysfunction, and promotes tumor-like changes in human lung cells.

Second, regarding renewables, the proposed rule includes only modest goals for state-specific renewable energy generation. My state of Indiana, for example, is expected to generate only 7% of its energy from renewables by the year 2029. Arizona, a state with enormous solar energy potential, is expected to generate only 4% from renewables. In contrast, consider that Germany has provided as much as 50% of its country's electricity needs using solar power. In the absence of more ambitious but achievable renewable energy goals, the EPA's proposed rule, deliberately or not, will result in states continuing to rely on coal, burnt more efficiently perhaps, and on increased use of natural gas. Burning coal more cleanly does nothing to address the pollution caused by coal mining and the subsequent health problems created in mining communities. Increasing evidence also points to the highly polluting nature of natural gas extraction, especially in the form of hydraulic fracturing. To ignore the contributions to climate change and poor public health caused by fossil fuel extraction of both coal and natural gas is a serious oversight in the proposed rule.
In conclusion, I applaud the EPA’s efforts to address the problems caused by our continued overreliance on fossil fuels. I urge the EPA to increase the goals for renewables. I caution the EPA that we cannot simply replace coal with natural gas, or replace coal burnt in dirtier plants with that same coal burnt in slightly cleaner plants, without considering the climate change and public health costs of the full production cycles of these fuels (extraction, processing, transportation, combustion, and disposal), not simply the costs of their combustion.