Testimony at OTC Hearing - August 16, 2019
EPA Region III Offices, Philadelphia
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Good morning and thank you for hearing my testimony today. I served our country in Viet Nam and was awarded 3 Purple Hearts. I was fortunate when I returned home, despite my injuries, to be able to have a large family with my wife. But one of my granddaughters was not so fortunate. She died as a toddler from lung disease. I'll never know for sure whether her illness was partly caused by air pollution. But when I learned that children's health is adversely impacted by air pollution, especially ozone, I became a staunch advocate for a cleaner environment.

As I'm sure you know, ozone is a corrosive air pollutant that inflames the lungs, constricts breathing, and likely kills people. It causes and worsens asthma attacks, emergency room visits, hospitalizations, and other serious health harms. Ozone-induced health problems often force children to stay indoors and people to take medication and miss work or school. Ozone can harm healthy adults, but others are more vulnerable. Children, because their respiratory tracts are not fully developed, are especially vulnerable to ozone pollution, particularly when they have elevated respiratory rates, such as when they are playing outdoors. People with lung disease and the elderly also have heightened vulnerability. People with asthma suffer more severe impacts from ozone exposure than healthy individuals do and are more vulnerable at lower levels of exposure.

So far this ozone season, the Philadelphia region has had 11 days in which the ozone levels were high enough to trigger an orange alert, during which time children, older adults, and people with breathing issues are advised to limit outdoor and physical activity to avoid triggering health problems. In addition to contributing to smog, NOx also settles on the ground, where rain carries it into waterways. Airborne NOx pollution is a significant source of nitrogen pollution in the Chesapeake Bay.

Coal-fired power plants are the largest stationary sources of NOx. Prior to 2017, they accounted for about a quarter of all NOx pollution originating in Pennsylvania. In 2017, new state regulations went into effect that reduced the allowable rate of NOx pollution from coal-fired power plants in PA from 0.4 lbs per million British Thermal Units (MMBTU) to 0.12 lbs per MMBTU. Before this regulation, most power plants in Pennsylvania were equipped with pollution controls to reduce NOx, but most were rarely (if ever) operating it. However, there are numerous loopholes in the regulation that still allow for excessive NOx pollution from power plants, including:

- First, generating units owned by the same company are allowed to average emissions across all their units. That means one unit could be emitting over the limit by not fully

utilizing its pollution controls, but the exceedance could be offset by another unit that emits under the limit.

- Second, when units are operating at less than full capacity the new limit does not apply. This condition happens more and more frequently as coal units that used to run all the time because they were cheapest now cycle up and down a lot because newer gas plants and renewable energy tend to be cheaper and are used first.
- Third, and most relevant here, the regulation allows generating units to average their NOx emissions over a 30-day period to determine compliance. This means that they could fail to operate their controls for a number of days (thereby contributing more to smog during those times), but make up for that by emitting below the standard on other days.

Federal limits on NOx pollution under the Cross State Air Pollution Rule only require total emission limits for an entire ozone season. They are silent on emissions over any shorter time period.

As for the Maryland Petition, NOx can travel long distances and cause pollution problems far from its source. The Ozone Transport Commission was formed to recognize this and deal with pollution issues that originate in one state and impact other states.

Ozone or smog can cause health problems even when exposure is limited to short durations. That is why the federal standard for smog, which is designed to protect public health, is based on ozone levels over an **8-hour period**. By allowing its power plants to comply with NOx emissions limits by averaging over a **30-day period**, Pennsylvania does not protect against shorter-term spikes in smog pollution that could harm human health and the environment.

There is nothing to stop power plants from increasing their NOx pollution rates as much as 3.3 times the usual limit, even on days when ozone pollution is at its worst. Downwind states in the Ozone Transport Region have imposed shorter 24-hour averaging periods for compliance. Even the 30-day average emissions limit for NOx of 0.12 lbs per MMBtu is high, compared to what the plants have proven they can achieve.

Pennsylvania power plants have routinely achieved rates of 0.04 to 0.08 lbs per MMBtu on an hourly basis when their pollution control equipment is optimized. Therefore, they should have no trouble complying with a rate of 0.12 lbs per MMBtu on a 24-hr basis. This would ensure a much greater level of protection against excessive smog days. As a downwind state impacted by pollution from power plants in Pennsylvania, Maryland is petitioning the OTC to require that these plants must optimize their NOx pollution controls every day of the ozone season.
At the Sierra Club we have fought the loopholes in Pennsylvania's NOx pollution limits, including the excessive 30-day averaging provision, ever since they were initially proposed in 2014. We are currently challenging EPA's approval of the regulation because of these

loopholes. We fully support Maryland's petition, and ask that the OTC States vote to approve it and send the petition to EPA for consideration.

Thank you.