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**Testimony before the Oregon House Energy and Environment Committee Informational
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Portland's Toxic Hot Spots: What Now?

Major flaws in Oregon's air quality regulatory system have recently sparked significant controversy. The federal Congressional delegation representing the Portland metropolitan area has declared with a unified voice that Portland is in the midst of a "public health emergency". The steps outlined in the letter sent on February 14, 2016 by Oregon Department of Environmental Quality (DEQ) Director Dick Pedersen in response to a strong directive from Gov. Kate Brown, however, don't go nearly far enough to address the problem.

The Oregon state legislature expressly mandated that "the program for the control of air pollution in this state shall be undertaken in a *progressive* manner". Oregon's lawmakers clearly did not intend for us to get mired in outmoded, ineffective, gap-filled paths towards air quality oversight. The all-too-frequently recurring loop of inadequate regulatory oversight by Oregon DEQ, significant emerging air pollution problems, finger-pointing at DEQ, demanding that the agency fix the problem, and then hearing the agency respond that it doesn't have the resources to address the problem, is broken. The Director's vague commitments to embark on an extensive formal rule-making at some indeterminate point in the future in which industry inevitably dominates the conversation and pre-determines the outcome, or to re-start the Portland Air Toxics Solutions geographic program, a program that utterly failed to identify and craft *solutions* last time around to the problems that have garnered recent headlines, are not enough.

It is time for a new path forward.

Portland's air is filled with toxic 'hot spots'. DEQ has existing legal authority under Oregon's state air toxics program to immediately establish and implement aggressive toxic hot spot assessment and control strategies, particularly for specific source categories such as glass-manufacturing. The Oregon Legislature and the Oregon Environmental Quality Commission have pressed Oregon DEQ for years to do more to reduce the threats of harm to public health and the environment posed by air toxics, and have provided the agency with ample authority and regulatory discretion to do just that.

If Oregon DEQ doesn't aggressively respond to the problem, Portland local government has recently expressed its intent to assert local control over Portland's air pollution problem. In furtherance of that objective, the state legislature has already provided a clear avenue for the creation of regional air quality control authorities. ORS 468A.105. If that happens, and it is an intriguing idea: air quality regulation of, by and for Portlanders, it isn't going to happen overnight.

In the meantime, to whom do we look for guidance? The US EPA has established federal sector-specific technology-based standards of performance under the federal Clean Air Act, but Senator Ron Wyden characterized the federal air toxics regulatory gap responsive to the problems identified in Portland as a loophole that is potentially 'the size of a lunar crater'.

The process of dramatically ratcheting down toxic air emissions from industrial sources, however, is well established in other states. In fact, California has been implementing just such a program for decades. That state's air board claims that over the last 25 years, California has successfully reduced statewide emissions and related health impacts from exposures to air toxics by approximately 75 percent. During this same period the economy, as measured by the California Gross Domestic Product grew by 83 percent and the number of residents and vehicles increased by approximately 30 percent each, roughly 9 million and 8 million, respectively. <http://www.arb.ca.gov/toxics/rma/rmgssat.pdf>

Portland local government has expressed an interest in the establishment of a new Portland Air District. In the meantime, Oregon DEQ must be provided with the encouragement, support and resources to do more.

In his letter to Governor Brown dated February 14, 2016, Director Pedersen acknowledged that the agency has inadequately identified and implemented strategies to respond to the threats posed by industrial sources of hazardous air pollutants (HAPs) within the City of Portland.

“Our work on air toxics in the past has resulted in some successes in reducing impacts in the Portland area but, particularly in light of the recent information about localized hot spots, it now suggests and supports that a more aggressive approach is needed to make the necessary progress to reduce air toxics impacts from industrial sources.”

The following sets forth a detailed proposal for a regulatory response from Oregon DEQ to address potential risks resulting from emissions of heavy metals from industrial sources of air toxics in Portland, with particular emphasis on glass manufacturing facilities. DEQ currently has all necessary statutory and regulatory authority to implement on an expedited basis strategies to address the now-identified threat to human health posed by emissions of HAPs from industrial sources in Portland.

OAR Chapter 340, Division 246 sets forth DEQ's regulations for Oregon's Air Toxics Program. Under Section 110 of Division 246, DEQ has the authority to develop "Source Category Rules and Strategies" to address threats posed by a specific category of air emissions, like glass manufacturing. OAR 340-246-0110. Those regulations were implemented by DEQ in 2003 under its statutory set forth in ORS 468A.025, which broadly authorizes the agency to establish air purity standards for the State of Oregon. ORS 468A.025(1).

DEQ's regulatory authority under Division 246 is triggered when, among other events, "emissions inventory, modeling or monitoring, shows air toxics emissions from point, area, or mobile sources associated with public health risk at public receptors." OAR 340-246-0110(1)(a). The recent moss sampling conducted by the U.S. Forest Service combined with air monitoring data collected by DEQ as well as past air toxics data from within the City of Portland unquestionably meet this threshold for DEQ action. The regulations do not specify what strategies DEQ should implement, leaving it to the discretion of the agency to determine how best to address the associated health risks.

The goals of a fully-functioning industrial air toxics reduction strategy in Portland would be to 1) identify all facilities that are or may be emitting hazardous air pollutants, 2) collect emissions data from those facilities that may pose risks to the community, 3) identify facilities that are causing or contributing to elevated levels of toxics in the environment, 4) understand the potential health risks, 5) notify nearby residents of any significant risks, and 6) reduce any such risk.

To these ends, the Program must seek to reduce or eliminate threats to public health and the environment in the Portland Metropolitan area that remain after implementing the technology-based strategies of the federal air toxics program. Any facility that manufactures, formulates, uses, or releases any of the Air Toxics identified under the Program, and that otherwise meets the Program's threshold requirements, should be required to complete the following steps.

First, the facility must prepare an Air Toxics Emission Inventory Plan, indicating how emissions will be measured or calculated. The plan will be used to develop an Air Toxics Emission Inventory Report. The Program may use a phased approach for the emission inventory requirement, prioritizing those facilities, or industry sectors, that may pose the highest risks. Where appropriate, the Program may allow for industry sector-wide inventories, based on conditions such as economic hardship and small business status, in lieu of individual emission inventories.

Second, the facility will use the Air Toxics Emission Inventory Report to complete a Risk Assessment. This Risk Assessment, as prescribed under the Program, will necessarily include an analysis of the dispersion of hazardous substances into the environment, the potential for human exposure, and a quantitative assessment of both individual and population-wide health risks associated with those levels of exposure. The Program will establish the terms and conditions for the Risk Assessment to ensure accurate and reliable results. Again the Program may use a

phased approach for the timing of the Risk Assessment based on factors such as the potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to sensitive community members, and any other factors associated with the potential risk posed by the facility.

Third, when the results of the Risk Assessment demonstrate a Significant Risk to the community, as defined under the Program, the facility must first share that information with all exposed persons. Next, the facility must conduct a Risk Reduction Audit and develop a plan to implement the measures necessary to reduce the risk to the community. Generally, the risk Reduction Audit must describe the risk reduction methods the facility will use to reduce its risk below the level of significance within a set amount of time, i.e. three years.

Finally, to ensure the public has access to the best available information on air quality, the Program must ensure that emissions data and health risk assessments are made available to the public.

With respect specifically to glass manufacturers in the Portland metropolitan area, DEQ should immediately implement the following strategies:

- 1) DEQ should order each glass manufacturing facility in the Portland Metro area to submit to the agency a detailed inventory of all annual emissions of HAPs, along with an explanation of how the facility calculated the emission rates and total emissions. The facilities should also be required to submit to DEQ a detailed list of all chemicals used in conjunction with their manufacturing processes and all associated Material Safety Data Sheets (MSDS). DEQ should also order each facility to provide a log of production activities over the past 24 months, if DEQ does not already have that information.
- 2) Utilizing this information, DEQ should conduct air quality modeling to predict the potential exposure to HAPs in communities neighboring these facilities.
- 3) DEQ should then use that air quality modeling information to perform a human health risk assessment to assess potential impacts to neighboring communities, including a review of both carcinogenic and non-carcinogenic risks and any potential synergistic effects resulting from exposure to multiple chemicals to the extent known.
- 4) While DEQ is performing a human health risk assessment, it should at the same time conduct a review of the emissions control equipment installed and utilized at each facility, and it should review the maintenance and operational records of each facility. DEQ should then develop recommendations as to whether each facility is utilizing the most effective and up-to-date emissions control equipment available.
- 5) Once the human health risk assessment is completed, DEQ should order each facility to install additional emissions control equipment, limit the ingredients utilized in the

production process, and/or limit the quantity of chemicals utilized to ensure protection of human health with a reasonable margin of safety.

- 6) Throughout this process, and starting immediately, DEQ should install and operate air quality monitoring equipment adjacent to identified facilities of concern within the Portland Metro area, which can be used to evaluate air emissions information from the facilities, validate and refine air modeling information, and inform human health risk assessments. Those air monitoring activities should continue for at least two calendar years, and DEQ should not stop collecting this data unless and until it can explain, based on prior data, why further collection of data would not be meaningful in its efforts to protect human health.