NYU Marron Institute of Urban Management

Kevin Cromar, PhD
Director, Air Quality Program

Marron Institute of Urban Management
60 5th Avenue, 2nd Floor
New York, NY 10011

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Dr. Kevin Cromar is an Associate Professor of Environmental Medicine and Population Health at NYU School of Medicine and the Director of the Air Quality Program at NYU's Marron Institute of Urban Management. He currently serves on the Utah Air Quality Board, which is the primary air quality policymaker for the state, and is the vice chair of the Environmental Health Policy Committee for the American Thoracic Society. While his experience serving in government and professional societies provide insight into these issues, his comments represent his own professional opinion.

> *"Conversion of the heavy-duty diesel fleet in New York to cleaner alternatives is the lowest hanging fruit available to the city council in reducing the adverse health risks from air pollution in our city, particularly for those most vulnerable to its impacts." -Kevin Cromar, PhD*

Maintaining a Health Focus: Transitioning away from Heavy-Duty Diesel Fleets in New York

Like many other east coast U.S. cities, New York struggles to reconcile efforts to improve local air quality with limited jurisdiction over some of the largest contributors to ambient pollution levels, including interstate pollution and exempted emission types (e.g., new motor vehicles). Even in the face of these challenges, substantial improvements in air quality attributable to reductions in local emissions have been realized, most notably through the reductions in sulfur content and phasing out of high sulfur content heating oil for commercial and residential buildings.

Despite the fact that heating oil emissions from buildings represented a relatively small fraction of total pollution in New York, the move towards cleaner fuel and the replacement of boilers with available, less-polluting alternatives (not immediately, but as part of the natural turnover of equipment) resulted in New York experiencing the lowest wintertime levels of air pollution in the last 40 years. The New York City Council and the Mayor's Office deserve special recognition for the tremendous reduction in public health risks that resulted from this cost-effective policy solution.

Similar to heating oil in buildings, emissions from heavy-duty diesel vehicles represent a relatively small fraction of the total pollution burden in the city but make up a relatively large portion of the controllable air pollution emissions that fall under the jurisdiction of the city. Perhaps most importantly, it is one of the largest contributors to the inequity of air pollution health risks experienced by the most vulnerable populations in New York.

Transitioning away from heavy-duty diesel engines will result in immediate and sustained improvements in public health outcomes experienced by New Yorkers, including the reduction of cardiovascular health

risks among adults and respiratory health outcomes among children. These benefits not only include improvements in the anecdotal (sub-clinical) experiences of patients that report difficulty breathing when getting on and off of city buses and when walking by garbage trucks, but will make a large enough difference in daily pollution exposures to mitigate clinical health outcomes associated with short-term (e.g., emergency department visits and hospital admissions for respiratory disease) and long-term exposures (e.g., development of lung function in children and disease progression in children and adults).

Proposed policies to transition away from heavy-duty diesel vehicles in New York City fleets is particularly appealing, not only due to the cumulative emission reductions that would occur from fleet conversion, but also due to the current availability of alternative heavy-duty vehicles of comparable price and capability to diesel vehicles (i.e., natural gas powered engines). In fact, the conversion of the heavy-duty diesel fleet in New York to cleaner alternatives is the lowest hanging fruit available to the city council in reducing the adverse health risks from air pollution in our city, particularly for those most vulnerable to its impacts.

The change in air pollution exposures that would result from conversion away from heavy-duty diesel vehicles is of sufficient magnitude to reduce public health burdens of city residents. Additionally, as fleet conversion occurs, the prioritization of neighborhoods experiencing the highest rates of air pollution-related health impacts is the best available option to address environmental health disparities in the city.

I urge the city council and the finance committee to adopt policies that prevent the purchasing of heavy-duty diesel vehicles, particularly for use by the Department of Sanitation and MTA, when lower emission alternatives (i.e., natural gas vehicles) are available.