

New Jersey Environmental Justice Alliance Toxic Air Reduction Policy

The New Jersey Environmental Justice Alliance (NJEJA) has developed numerous policy recommendations intended to improve the environmental quality, public health and general welfare of residents of communities Of Color and low-income neighborhoods. The substantive areas these policies address include cumulative risks and impacts, air pollution, climate change, the construction of schools on contaminated sites and energy production. One issue that connects all of these substantive areas is reducing concentrations of fine particulate matter air pollution, which is one reason it is the subject matter of the policy recommendations presented below.

Fine particulate matter (PM) air pollution, also called PM_{2.5} since it consists of airborne particles less than 2.5 micrometers in diameter,ⁱ is one of the most serious environmental health problems in our country today. It has been estimated to cause tens of thousands of premature deaths in the United States annually including 14,000 to 24,000ⁱⁱ early mortalities in the State of California alone. This deadly pollutant is linked to cardiovascular diseaseⁱⁱⁱ and a variety of pulmonary disorders including lung cancer,^{iv} asthma^v and decreased lung function in children.^{vi}

New Jersey is not exempt from the death and illness caused by fine PM. The U.S. Environmental protection Agency declared 13 of our state's 21 counties to be in violation of the federal annual fine PM standard^{vii} and the New Jersey Department of Environmental Protection has estimated that exceeding the standard has resulted in 1,900 deaths and 53,000 cases of asthma each year.^{viii} The State is also in violation of the new federal daily fine PM standard.^{ix}

Fine PM air pollution is an environmental justice issue because concentrations are typically highest in urban areas^x and it is therefore almost certainly causing death and illness in disproportionate numbers amongst residents of low-income neighborhoods and Of Color communities. One reason fine PM concentrations tend to be highest in urban areas is due to emissions from diesel-powered vehicles and equipment including trucks, buses, and construction equipment.^{xi} Diesel fine PM is not only prevalent in urban areas but because multiple toxic substances adhere to the particles it may be more toxic than fine PM from other sources.^{xii} These other sources include locations and processes where combustion occurs such as incinerators, power plants, refineries, industrial smokestacks,

commercial and private boilers, and furnaces.^{xiii} In addition to emitting particles directly into the air, pollution sources may also emit nitrogen oxides and sulfur dioxide gases, sometimes referred to as fine PM precursors, which may chemically react in the atmosphere and form fine particles.^{xiv}

Because of the suffering that fine PM air pollution has inflicted upon New Jersey residents NJEJA has developed numerous policy recommendations^{xv} intended to reduce concentrations in the State. Our goal is to decrease fine PM concentrations as low as possible because there appears to be no lower threshold for the positive health benefits that follow the reduction of fine PM levels.^{xvi} Here, we have prioritized seven policy recommendations that if implemented would save lives and reduce illness in New Jersey, especially in urban areas. We believe that all, or portions, of recommendations 1, 4, 5, 6 and 7 can be substantially accomplished within one year. Recommendations 2 and 3 may take a longer time period to accomplish fully but significant progress could be made in a year.

POLICY RECOMMENDATIONS

1) The Governor should issue an executive order requiring all privately owned, publicly contracted, diesel- powered vehicles to emit no more pollution than a diesel-powered vehicle constructed after 2007. The executive order should also require all diesel-powered equipment to be retrofitted with the best available technology to reduce toxic air emissions to the greatest extent possible. This recommendation and the following one would result in a significant reduction in the emissions of diesel fine PM. It would also extend the positive effects of the Diesel Retrofit Law (P.L. 2005, c.219) to the private sector. This law requires the retrofitting of a significant portion of the publicly owned diesel fleet in the State.

2) The State should implement the Coalition for Healthy Ports Clean Air Plan that would require all truckers that do business with the ports in Newark and Elizabeth to be employed by a trucking company that is responsible for using clean trucks and paying a living wage, with benefits, to drivers. Thousands of trucks service the ports in Northern New Jersey daily^{xvii} and are almost certainly contributing to air pollution in and near neighborhoods in Newark and Elizabeth. The Coalition for Healthy Ports Clean Air Plan^{xviii} would dramatically reduce diesel emissions from these trucks. NJEJA is a member of the Coalition.

3) The annual fine PM standard in New Jersey should be lowered from 15.0 to 12.0 $\mu\text{g}/\text{m}^3$. The federal annual fine PM standard is 15.0 $\mu\text{g}/\text{m}^3$ ^(xix) but California has set its standard at the more protective value of 12.0 $\mu\text{g}/\text{m}^3$. ^(xx) The State of New Jersey should follow suit and improve the health of its citizens by setting its standard at 12.0 $\mu\text{g}/\text{m}^3$.

4) Air pollution emitted by incinerators in Camden and Newark should be reduced in the short run and a firm closure date should be established for both facilities in the long run. Incinerators in Camden and Newark pour tons of pollution into the air^{xxi} and this is probably

affecting the health of nearby residents in a negative and disproportionate manner.^{xxii} The amount of pollution emitted by these facilities should be reduced according to an established timetable and a firm closure date set for both.

5) The State should develop and implement climate change policies that reduce emissions of fine PM and its precursors, as well as emissions of carbon dioxide. This type of climate change policy would save lives *now* by reducing concentrations of fine PM. The State should be just as concerned with its fine PM footprint as it is with its carbon footprint.

6) Energy conservation techniques and renewable energy sources should be used extensively in urban areas. Urban areas in New Jersey should become centers of innovation and utilization for energy conservation techniques and renewable energy sources. This would: a) reduce emissions of fine PM and its precursors; b) reduce emissions of carbon dioxide; and c) provide employment and other economic opportunities to urban residents. The State should create a fund dedicated to promoting energy conservation and renewable energy projects in urban areas.

7) An environmental justice committee should be formed in New Jersey that will oversee environmental justice aspects of climate change policy in the State. Environmental justice aspects of climate change policy would include recommendations 5 and 6 above, and integrating various environmental justice policies into the Regional Greenhouse Gas Initiative. California has such a committee^{xxiii} and New Jersey, particularly its urban areas, would benefit by following suit. At the very least the committee should have one paid full time staff member.

The New Jersey Environmental Justice Alliance is an alliance of New Jersey-based organizations and individuals working together to identify, prevent, and reduce and/or eliminate environmental injustices that exist in communities of color and low-income communities. NJEJA will support and ensure participation and representation of community efforts to remediate and rebuild impacted neighborhoods—using the community’s vision of improvement—through education, advocacy, the review and promulgation of public policies, training, and through organizing and technical assistance.

ⁱ Godish, T. 1997. Air Quality. Third Edition, Lewis Publisher, New York, at pg. 60.

ⁱⁱ See California Environmental Protection Agency, Air Resources Board. 2008. Methodology for Estimating Premature Deaths Associated with Long-term Exposures to Fine Airborne Particulate Matter in California, Draft Staff Report, May 22, 2008, 49 pp., at pg. 34.

ⁱⁱⁱ Jerrett, M., Burnett, R.T., Ma, R., Pope, C. A., Krewski, D., Newbold, K.B., Thurston, G., Shi, Y., Finkelstein, N., Calle, E.E. and M.J. Thun. 2005. Spatial Analysis of Air Pollution and Mortality in Los Angeles, *Epidemiology* 16:727-736 at pp. 732-733; Pope, C., Burnett, R.T., Thurston, G.D., Thun., M.J., Calle, E.E., Krewski, D. and J. Godleski. 2004. Cardiovascular Mortality and Long-Term Exposure to Particulate Air Pollution, *Epidemiological Evidence of General Pathophysiological Pathways of Disease, Circulation* 109: 71-77 at pp. 74-76.

^{iv} Jerret et al., *supra*, note 3 at pg. 733 Pope, C., Burnett, R.T., Thun., M.J., Calle, E.E., Krewski, D., Ito, K. and G.D. Thurston. 2002. Lung Cancer, Cardiopulmonary Mortality, and Long Term Exposure to Fine Particulate Air Pollution, *JAMA* 287:1132-1141 at pp. 1136-1141; Dockery, D.W., Pope, C.A., Xiping, X., Spengler, J.D., Ware, J.H., Fay, M.E., Ferris, B.G. and F.E. Speizer. 1993. An Association Between Air Pollution And Mortality In Six U.S. Cities, *NE J Med* 329(24):1753-59 at pp. 1756 and 1758.

^v See New Jersey Department of Environmental Protection. 2008. State Implementation Plan (SIP) for the Attainment and Maintenance of the Fine Particulate Matter (PM_{2.5}) National Ambient Air Quality Standard, PM_{2.5} Attainment Demonstration Proposal, June, 16, 2008, at pg. 1-7.

^{vi} Brunekreef, B., Janssen, A.H., de Hartog, J., Harssema, H., Knape, M. and P. van Vliet.

1997. Air pollution from Truck Traffic and Lung Function in Children Living near Motorways, *Epidemiology* 8(3):298-303, May, 1997.

^{vii} See New Jersey Department of Environmental Protection, *supra*, note 6 at pg. 1-3.

^{viii} See New Jersey Department of Environmental Protection, *supra*, note 6 at pg. 1-7.

^{ix} See New Jersey Department of Environmental Protection, *supra*, note 6 at pg. 1-5.

^x See data contained in United States Environmental Protection Agency. 2005. Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information, Office of Air Quality planning and Standards, December, 2005, Figure 2-16, pg. 2-42, presenting data from Schmidt, M., Mintz, D., Rao, V. and L. McCluney. 2005. United States Environmental Protection Agency Memorandum to File. Subject: Analyses of 2001-2003 PM Data for the PM NAAQS Review. June 30, 2005.

^{xi} See New Jersey Department of Environmental Protection, *supra*, note 6 at pg. 1-13.

^{xii} Schneider, C.G. and L.B. Hill. 2005. Diesel and Health in America: The Lingering Threat, Clean Air Task Force, February, 2005, at pg. 10; also see New Jersey Department of Environmental Protection, *supra*, note 5 at pg. 1-8.

^{xiii} See Pope, C. A. and D.W. Dockery. 2006. Health Effects of Fine Particulate Air Pollution: Lines that Connect, *Journal of Air & Waste Management Association* 56:709-742, at pg. 710; also see United States Environmental Protection Agency. 1997. PM_{2.5} Composition and Sources, Office of Air Quality Planning Standards, Emissions, Monitoring and Analysis Division, June 16, 1997.

^{xiv} See Godish, *supra*, note 1 at pp. 38 and 59-65.

^{xv} See a “Fine and Diesel Particulate Matter Platform” and “An Environmental Justice Climate Change Policy” which are documents that present policies on fine PM and climate change developed by NJEJA. Also see comments submitted to the New Jersey Department of Environmental Protection by the NJEJA on New Jersey’s proposed Fine PM State Implementation Plan, Regional Greenhouse Gas Initiative Rules, Global Warming Response Act Recommendations, and Draft Energy Master Plan. All of these documents are available from Nicky Sheats, director of the Center for the Urban Environment and member of NJEJA, who can be contacted at 609-777-4351 ext. 4280 or nsheats@tesc.edu.

^{xvi} California Environmental Protection Agency, Air Resources Board, *supra*, note 3 at pg. 28.

^{xvii} Vollmer Eng-Wong & Associates, Stump/Hausman, New Jersey Institute of Technology and Stevens Institute of Technology. 2006. Port Authority Marine Container Terminals Truck Origin-Destination Survey 2005, Prepared for: The Port Authority of NY & NJ, November 2005, Revised 2/27/06, at pp. II-4 and II-1.

^{xviii} Available from Amy Goldsmith, executive director of the New Jersey Environmental Federation and co-chair of the Coalition for Healthy Ports, who can be contacted at (732) 280-8988.

^{xix} See 40 CFR section 50.7(a).

^{xx} See California Environmental Protection Agency, Air Resources Board. 2008. 2007 Annual Report on the Air Resource’s Board Fine Particulate Monitoring Program, June, 2008, at pg. 3.

^{xxi} See New Jersey Department of Environmental Protection, Air Quality Division, Air Quality Permitting Element. 2009. Notice of Public Hearing and opportunity for Public Comment on Draft Renewal Air Pollution Control Operating Permit for Camden County Energy Recovery Associates, New Jersey, January 27, 2009.

^{xxii} See Thompson, J. and Anthony, H. 2005. The Health Effects of Waste Incinerators, 4th Report of the British Society for Ecological Medicine, at pp. 18-20.

^{xxiii} See Part 7. Miscellaneous Provisions Section 38591 of the California Global Warming Solutions Act of 2006 (AB 32: Stats. 2006, chapter 488).

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