

MAKING A DIFFERENCE IN THE SOUTH BRONX WITH POLLUTION INITIATIVES

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Climate change is creating new risks for residents and workers in environmental justice communities in New York City (NYC). Storm surge and flooding from severe weather events such as Superstorm Sandy can result in the release of toxic substances typically used at companies and businesses, increasing the risk of human exposures. In fact, according to NYC's Special Initiative for Rebuilding and Resiliency (SIRR), about half of the businesses impacted by Hurricane Sandy were industrial firms.¹

In an effort to improve sustainability and climate resiliency in the South Bronx community and industrial waterfront, the New York State Department of Environmental Conservation (NYSDEC), the New York State Pollution Prevention Institute (NYSP2I), and the New York City Environmental Justice Alliance (NYC-EJA) worked together to promote pollution prevention and climate adaptation strategies in two ways. The first way pollution prevention and climate adaptation strategies were promoted was through work with two local companies.

Hunts Point Service Station (HPSS) is an auto repair facility in the South Bronx who uses chlorinated solvents for parts cleaning. While this cleaner is standard in the auto service industry, it exhibits health and environmental hazards.

NYSP2I worked with HPSS to identify and implement an alternative parts cleaning system that uses distillation to recycle non-chlorinated solvent. The alternative parts cleaning system could result in as much as an 83% reduction of hazardous materials use, equating to \$2,900/year in material cost savings.

Another local auto body shop recently acquired computerized paint mixing system as part of an agreement with the paint supplier. As a pollution prevention strategy for auto body shops, computerized paint mixing systems help to reduce the amount of paint used for each job as well as the hazardous wastes associated with solvent-based refinishing operations. NYSP2I worked with the auto body shop to quantify the benefits of the mixing system and found that the amount of paint in inventory and storage had been reduced by approximately 50lbs and associated volatile organic compounds (VOC's) by approximately 30lbs. An additional reduction in solvent used for cleaning is estimated to result in an annual savings of approximately \$900 as well as a reduction of over 500lbs VOC's.

The second way the partnership was able to promote pollution prevention and climate adaptation strategies was through the development of an Environmental Best Management Practices toolkit for the Auto Repair, Auto Body and Auto Salvage industries.² The toolkit was developed through research of best management practices in these industries and then was disseminated through workshops, door-to-door visits and social media outlets. This resource is an easy-to-use checklist that can help auto shops address environmental health risks in their communities.

This work was made possible through a grant funded by the US Environmental Protection Agency. Other aspects of the grant included working with the South Bronx Community through a Stakeholder Engagement Group, assessments of local businesses to identify what resources and chemicals they utilize, and the generation of maps that delineate social and environmental characteristics in the South Bronx.

About NYSDEC

The mission of the NYSDEC is to conserve, improve and protect New York's natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being.

About NYSP2I

The New York State Pollution Prevention Institute (NYSP2I) is a statewide research and technology transfer center funded by New York State Department of Environmental Conservation (NYSDEC), located at Rochester Institute of Technology (RIT) and partnered with three additional universities. The goal of NYSP2I is to support New York State (NYS) manufacturers with funded technical engineering and lab resources to provide solutions for improving product and process efficiency, cost savings and becoming an environmental leader in NYS.

About NYC EJA

NYC-EJA is a non-profit citywide network linking grassroots groups from low-income communities of color in their struggle for environmental justice.

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¹ http://s-media.nyc.gov/agencies/sirr/SIRR_spreads_Hi_Res.pdf

² <http://www.rit.edu/affiliate/nysp2i/sites/rit.edu/affiliate.nysp2i/files/docs/workshops/autotoolkit16P2I.pdf>