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Committee on Oversight and Government Reform

**Subcommittee on
Government Management, Organization, and Procurement**

**Hearing on
“9/11 Health and Environmental Impacts for Residents and Responders”**

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**Testimony of
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Good morning Chairman Towns and members of the Subcommittee on Government Management, Organization, and Procurement. Thank you for this opportunity to appear before you today.

My name is David Newman. I am an industrial hygienist with the New York Committee for Occupational Safety and Health (NYCOSH). NYCOSH is a non-governmental, non-profit organization that has provided technical assistance and comprehensive training in occupational safety and health to unions, employers, government agencies, and community organizations for over twenty five years.

Since the tragic events of September 11, 2001 and continuing to this day, NYCOSH, in partnership with the National Disaster Ministries of the United Church of Christ, has worked closely with unions, employers, and non-profit, immigrant, community, and tenant organizations at Ground Zero and throughout Lower Manhattan. This work has included outdoor and indoor environmental sampling, assessment of the safety and healthfulness of affected workplaces and residences, help with design and evaluation of sampling, cleanup, and re-occupancy protocols, and technical assistance with building ventilation and filtration issues. NYCOSH, in collaboration with the Queens College Center for the Biology of Natural Systems and the Latin American Workers Project, operated a mobile medical unit near Ground Zero which provided medical screenings to hundreds of immigrant day laborers engaged in the cleanup of contaminated offices and residences. We also provided respirators to these cleanup workers, along with changeout filter cartridges, fit-testing, and training in proper respirator use. In addition, NYCOSH has trained additional hundreds of Lower Manhattan workers about 9/11-related occupational and environmental health issues. Finally, NYCOSH has worked closely with health care providers and with unions, employers, and tenant and community organizations to ensure that their constituents are informed about and have access to appropriate medical care for 9/11 health conditions.

In addition, I had the privilege of serving as a member of the EPA World Trade Center Expert Technical Review Panel. I also served on the Exposure Assessment Working Group of the World Trade Center Worker and Volunteer Medical Screening Program and on the Advisory Board of Columbia University's Mailman School of Public Health World Trade Center Evacuation Study. I currently serve on the Community Advisory Committee of World Trade Center Environmental Health Center at Bellevue Hospital and on the Labor Advisory Committee of the New York City Department of Health and Mental Hygiene's World Trade Center Health Registry.

I believe there are three essential issues before us today:

- At this point in time, what do the scientific and medical data tell us about the nature and scope of environmental and health impacts stemming from the events of 9/11 and their aftermath?
- What are the remaining gaps in our knowledge?
- What additional efforts are needed?

The 9/11 attacks produced two primary sources of environmental contamination. One was particulate matter that originated in the dust cloud produced by the collapse of buildings in the World Trade Center (WTC) complex. The other was the plume of airborne combustion byproducts from the fires that burned above and below ground for three to five months.

Additionally, there were or are now several secondary sources of contamination. These include particulates disturbed and made airborne by rescue and recovery operations at Ground Zero; particulates released along the paths and at the sites of debris and waste transfer operations; particulates that infiltrated and remained in indoor spaces; and particulates and other contaminants that may be disturbed during the ongoing demolitions of 9/11-contaminated high-rise buildings or may be emitted at the massive reconstruction operations at the WTC site that will continue for the next decade or longer.

World Trade Center dust is known to have been dispersed throughout much of Lower Manhattan and adjacent parts of Brooklyn, and may have been dispersed over a larger geographic area. Hundreds of contaminants have been identified in outdoor and indoor air, dust, and bulk samples. Many are well known toxics and carcinogens, including asbestos, PCBs (polychlorinated biphenyls), PAHs (polycyclic aromatic hydrocarbons), man-made vitreous fibers, dioxins/furans, volatile organic compounds, crystalline silica, pulverized glass shards, highly alkaline concrete dust, and lead, mercury, and other

heavy metals.

Unfortunately, despite the fact that scores of thousands of environmental samples from Ground Zero and adjacent areas of Lower Manhattan have been collected and analyzed, our knowledge of the nature and scope of 9/11 contamination remains limited. This is because sampling operations by government agencies were neither coordinated, nor comprehensive, nor targeted. Appropriate sampling of workers and work areas at and around Ground Zero began late and was conducted only on a limited basis.

There has been no comprehensive, systematic investigation of potentially contaminated indoor spaces, even though particulate contaminants that infiltrate indoor spaces are known to persist over time if not subject to targeted environmental remediation. Most indoor sampling data were obtained in private sampling efforts. Government agencies have made no concerted effort to collect or assess these data. Government activities to assess or clean up indoor contamination have been scientifically and methodologically flawed. They were also inappropriately limited in scope, i.e., geographic areas known to have been impacted, such as Chinatown and parts of Brooklyn, were excluded, as were industrial and commercial indoor spaces as well as schools and government buildings. Consequently, the available environmental data for Lower Manhattan are of limited scientific utility and the data for Brooklyn are non-existent. Therefore, it is still not possible, even at this late date, to characterize the level, composition, and geographic scope of initial or residual 9/11-derived contamination, or to characterize prior or current exposure or risk.

Nevertheless, there are substantive, credible data that indicate the potential, although not the reality, of wide geographic dispersion, outdoors and indoors, of 9/11-derived toxic substances at levels of concern.

As an example, EPA has acknowledged that its test results for outdoor samples of

dioxin at and around Ground Zero through November 2001 “are likely the highest ambient concentrations that have ever been reported.” [1] These data indicate that the dioxin concentrations to which rescue and recovery workers were potentially exposed were several hundred times higher than is typical in urban air and that workers and residents returning to areas that were reopened to the public as safe one week after 9/11 were potentially exposed to concentrations of dioxin nearly six times the highest dioxin level ever recorded in the U.S. Note that dioxin is a carcinogen.

As another example, satellite photos clearly show the combustion plume over much of Brooklyn on 9/11. On that day my Flatbush neighborhood was blanketed with charred documents from WTC brokerage houses. Nevertheless, there are no data by which to assess the presence or absence of contaminants.

It is now well-established that a large and increasing number of people who were exposed to 9/11 contaminants, primarily rescue and recovery workers but also area workers and residents, are suffering serious and persistent adverse health outcomes.

Bearing in mind that risk of adverse health impact is dependent on the intensity and duration or frequency of the exposures and on the toxicity of the substances, there are multiple and distinct exposure populations. The two best known are persons caught in the dust cloud on 9/11 and workers and volunteers at Ground Zero and at the associated debris removal and waste transfer operations.

However, other groups also had, and may still have, potential for exposure and for adverse health effects. These include:

- immigrant day laborers and building maintenance personnel who engaged on a regular basis in cleanup of WTC dust and debris at commercial and residential buildings outside Ground Zero;
- workers involved in the restoration of essential services at and beyond Ground Zero (e.g., telecommunications, electrical, water, sanitation, transit, and other

workers) and/or workers who continue to engage in disturbance activities in spaces that have not been tested or cleaned, such as telecommunications workers in manholes, vaults, basements, and cable chases;

- workers engaged in the demolition of 9/11-contaminated buildings; and
- residents, workers, and students who remained in or returned contaminated indoor spaces.

Broadly categorized, there are three categories of adverse physical health outcomes associated with exposure to 9/11-derived contaminants:

- acute, short-term, reversible respiratory and skin irritant and allergenic symptoms and illnesses (e.g., upper airway cough syndrome and allergic and irritant-induced rhinitis);
- onset of new, or exacerbation of existing, chronic illness (e.g., reactive airways dysfunction syndrome and chronic rhino-sinusitis); and
- development of chronic, catastrophic illnesses with long latency periods (e.g., asbestos-related cancers and interstitial lung diseases). [2]

The incidence and persistence of 9/11-induced respiratory illness among thousands of response workers and area workers are by now well-established and extensively documented in the scientific literature, including among rescue, recovery, and service workers [3,4], firefighters [5,6,7], transit workers [8], and immigrant day laborer cleanup workers at buildings outside Ground Zero.[9] Although there is no question that, in general, those working on the pile experienced more severe exposures and health impacts than did community residents, students, and workers, comparable respiratory impacts among these latter groups are also extensively documented in the scientific literature. [10,11,12,13,14]

Because Ground Zero workers and other exposure populations may have been exposed at varying levels to a robust array of carcinogens, including asbestos, dioxins, silica, benzene, PAHs, and PCBs, there is concern for the potential development of

late-emerging cancers. It is as yet unknown whether or when 9/11-derived exposures will produce late-emerging diseases, but it is prudent and scientifically appropriate to anticipate the possibility.

I call your attention to the fact that neither environmental nor occupational health regulations were enforced at or around Ground Zero. This failure to ensure that these protective and legally required measures were utilized is likely to have contributed to the high incidence of 9/11-related illness that we are seeing today and that we may see in the future.

It is essential that the federal government apply a focused and comprehensive approach in addressing the ongoing environmental and health consequences of the attack on the World Trade Center.

The current EPA sampling program repeats many of the flaws of EPA's earlier effort, including the exclusion of Brooklyn. This current program was initiated despite being rejected by the EPA WTC Expert Technical Review Panel.

The current EPA program should be withdrawn and replaced with a scientifically and methodologically sound comprehensive testing effort to identify and quantify residual contaminants, if any, in indoor spaces, and to provide effective environmental cleanup, if and where warranted. Any new sampling and remediation effort must include places of business, schools, and government spaces, as well as residences. It should concentrate its initial efforts in indoor spaces closest to Ground Zero and proceed outward in concentric circles until measurements indicate that contaminants do not exceed background levels or health-based benchmarks. Its goal should be to identify and remove residual sources, if any, of ongoing or potential exposure.

A comprehensive approach is also needed in identifying, treating, and tracking the 9/11-related illnesses of rescue and recovery workers and of area workers, residents, and

students. It is critical that the federal government support and adequately fund over the long term the three medical “centers of excellence” - the World Trade Center Medical Monitoring Program and its affiliated consortium of clinical centers; the medical program at the Fire Department of New York; and the World Trade Center Environmental Health Clinic at Bellevue Hospital.

NYCOSH is disturbed by recent reports that the federal government may withdraw or reduce its support of the medical centers of excellence and instead require 9/11 health victims to pursue treatment on their own in the health care market. This would have dire consequences for the thousands of people who have or who may develop 9/11-related illnesses and would be a grave error in public health policy.

The high level of expertise in diagnosing environmentally induced symptoms and illnesses, associating them with environmental exposures, and rendering effective treatment through access to broad institutional resources that these hospital- and clinic-based centers provide could not be duplicated were 9/11 health victims forced to rely on a market-based health care model. It is also essential to maintain the medical centers of excellence because they are capable, as individual health care providers in a fragmented market are not, of engaging in targeted outreach and public health education, appropriate long-term medical monitoring, identification of disease trends, and collection and sharing of data to inform clinical practice and public health policy.

Thank you again for this opportunity to appear before you.

ENDNOTES

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