

**APPENDIX B**  
**Submitted Written Public Comments\***

**(Additional Written Public Comments from the May 24, 2005 Meeting may be found on the 911 Environmental Action Website:**

**<http://911ea.org>)**

**\*THE FOLLOWING PUBLIC COMMENTS WERE RECEIVED AT THE EXPERT TECHNICAL PANEL REVIEW MEETING #10. NOTE, THE MEETING IS NOT A PUBLIC HEARING TO HEAR TESTIMONY, BUT RATHER A TECHNICAL MEETING FOR EXPERT PANEL MEMBER DISCUSSIONS WITH TIME SET ASIDE TO HEAR COMMENTS FROM THE PUBLIC ON DISCUSSION TOPICS.**

Hi,

I was not able to stay at the hearing today, so I am writing to offer a couple of comments. First, I agree with the community's points on "inaccessible" areas, trigger levels, the lack of clean-up if certain conditions aren't met, etc. But I also wanted to make a point about the fire protocol.

I saw the EPA's scientist say that there are "thousands of fires" in NYC, and because they don't know how to distinguish a fire signature from WTC from a regular fire, a fire signature isn't being used in the study. This strikes me as another whitewash.

In Lower Manhattan, where I worked for years during and after the 9/11 tragedy (I worked on Murray Street), there was one particularly notable fire: the one that burned at ground zero for months. That fire, combined with the burning in the immediate aftermath of the WTC collapse, must have generated exponentially more contaminants and dust than any other fires in subsequent years. In fact, I don't even know of one fire that happened in the area besides the ground zero burning.

Perhaps I misunderstood, and maybe there are better reasons, but it therefore seems grossly wrong to assume that a fire signature would not come from ground zero. I think you should assume any fire residue is a product of the terrorist attack absent clear, indisputable evidence that it is not.

Moreover, even if the vast majority of any fire signature in the area was not a result of the many months long ground zero burn (which flies in the face of common sense), you should still assume that it is. Why? Because the terrorist attack was such an extraordinary event that EPA should be going way, way, way beyond whatever your typical testing and cleanup standards are. You owe it to all of us who took it for the rest of the country to do the absolute most you possibly can, even if that means assuming that contamination whose genesis you cannot determine ought to be treated as WTC contamination.

Finally, I think the EPA and the Health Department's actions on this issue have been wholly reprehensible. Your declaration that the air was safe to breathe immediately after 9/11 was outrageous. After what I will charitably call a "miscue" like that, I think it is difficult to trust your motivations. Therefore, I again call on you to go far beyond your typical behavior and really exert yourselves to protect the ground zero community, which still really needs help.

-Pete Sikora  
152 Fifth Ave Apt. 1B  
Brooklyn NY 11217  
tel: 718-623-5642

ps I also wanted to relate a curious incident I had a month or so after 9/11 - I was back now working in the area a couple of weeks after the tragedy. We had to pass through national guard and the whole bugged out scene to get to our office. In retrospect, we should never have rushed back to work given the air quality, but at the time it felt like the right thing (even patriotic) thing to do. In any case, I called the EPA in DC to complain about the declaration right after the tragedy that the air quality was ok. The person taking the call took my comment, and then, and I almost dropped the phone in astonishment, told me that I was absolutely right, and that he couldn't believe how politicized the EPA had been right after 9/11. So I find it just a little difficult to trust anything anyone from the EPA declares. I am extremely suspicious that you are designing this study in order to minimize health problems and contamination findings, rather than erring on the side of caution. Thank you for this opportunity to comment.

To EPA Panel 5/24/05

From Caroline Martin – Family Association of Tribeca East

I cannot adequately express my disappointment with your new testing program. I have spent months and months working with you to try to get a decent program in place and I feel deeply insulted by the result.

It is sad enough that you have abandoned any effort to test and clean for toxics from the fires that burned for 3 months. Three months during which we often had our windows open because you said the air was safe.

It is even sadder that in the event that your proposed highly experimental (some would say dubious) WTC dust signature does not pass either peer review or validation, you will only countenance testing and possibly cleaning 'on a voluntary basis' of the area you erroneously designate 'confirmed dust/debris'. This area does not include one single building that is part of The Family Association of Tribeca East. I cede the rest of my time.....

WTC Public Comments, May 24, 2005

My name is Mike Kenny. I have worked for the New York City Department of Design and Construction as a Construction Project Manager for 9 years. I am also the Health and Safety Chair for the Civil Service Technical Guild, Local 375 of District Council 37.

Local 375 represents over 6,000 members who work for a variety of city agencies. Many of our members regularly work in what the EPA has termed “inaccessible” or “infrequently accessed” spaces.

Housing inspectors, electrical and mechanical engineers, architects, industrial hygienists, asbestos hazard investigators, construction project managers, fire department inspectors, demolition inspectors, and many other of our members must access areas in ceiling air plenums, HVAC ductwork, basements, behind furniture, etc. as part of their jobs.

These areas are our “offices.” And these are the areas most likely to still contain contaminants caused by the World Trade Center collapse and fires.

According to the EPA’s final draft plan, these areas have benchmark levels for clean up that are ridiculously high. And in some of these areas, even if high levels of contaminants are found, NO cleanup will be offered.

To put it simply, it is just wrong for the EPA, an agency that’s supposed to protect us, to allow us to continue to be put at risk. You are the Environmental Protection Agency, it’s time you protected the environments we must work in every day.

WTC Panel Testimony  
May 24 2005

First, to respond to this morning's events:

EPA has said that if they find a unit is contaminated they'll not only clean the unit, they'll also clean the units around it. Pat Evangelista mentioned 53 condemned buildings downtown which are known to be contaminated.

By EPA's own logic, the buildings around these contaminated buildings should be cleaned.

Matt Lorber said that if a building refuses to be part of the sampling study, EPA will simply ask the next building down on its list and that this should compensate for the voluntary aspect of testing. No it doesn't. The two issues are apples and oranges. Voluntary testing, as many people have observed, skews the sampling in favor of buildings that have nothing to fear, in other words, buildings that are unlikely to be contaminated because they were well cleaned.

Thanks to the panel for your generosity and endurance. Our frustration with EPA is not directed at you.

Dr. Oppelt, I hope you've read the community testimony from the meetings that took place before you became Chair, rather than relying on synopses by your predecessor. I can't repeat my arguments against the signature. I'd just like to say now that the essence of a signature, the reason that EPA is looking for one as though it were the Holy Grail, is that it's constant, reliable. This signature is a chameleon that morphs every few months and is therefore suspect.

Others will dissect the actual sampling plan. I'll only remind the panel that even if EPA comes up with an acceptable plan, they have an abysmal history in the execution of their plans starting with the twenty-year-old methods they used to test for asbestos right after the disaster. For every fiber of asbestos EPA found, independent contractors found nine. Region 8 out west offered Region 2 in New York up-to-date equipment. Region 2 responded, "We don't want you effin cowboys here." (I paraphrase.) To prevent repeating this history, we need a third party monitor.

Finally, Dr. Oppelt, you said last time that you don't want to tell people what to do. Unfortunately, after an environmental disaster it is the job of EPA to tell people what to do; to inform and advise the public, just as it's the job of the FBI and CIA to inform and advise the President before a disaster and they get into trouble when they don't.

Jenna Orkin  
World Trade Center Environmental Organization

**STATEMENT OF ROBERT GULACK, UNION STEWARD,  
U.S. SECURITIES & EXCHANGE COMMISSION,  
AT THE EPA TECHNICAL REVIEW PANEL**

**FOR IMMEDIATE RELEASE    FOR MORE INFORMATION, CONTACT:**

May 24, 2005

Robert Gulack, (201) 794-9322

(Comments in the Morning Session)

Seven score and five years ago, Abraham Lincoln stood a few blocks from here. He said then that the acid test of human character was not what a person was willing to say. It's not even so much what a person is willing to do. It's what a person decides to do when destiny has fixed upon that person a specific responsibility. "Actions speak louder than words," Lincoln said, and "actions, under such responsibility, speak louder still."

None of us sought the special responsibility that sits upon all of us here today, but neither can any of us evade it. What we decide today will decide whether bin Laden has won a permanent victory here in New York, a victory that will claim more and more lives each year, or whether, at long last, the evil work of al-Qa'ida in New York will be brought to an end.

It would be right for the EPA to agree to work with New York's State Emergency Management Office to test buildings even where landlords are seeking to hide contamination. It is right for that testing to go forward. It is right for that contamination to be discovered. It is right for that contamination to be cleaned up before it hurts anyone else. And all the doubletalk that Chairman Oppelt can summon about "jackboots" cannot turn that right into a wrong.

It is the hallmark of good faith negotiations that the proposed agreement becomes, in each successive draft, closer to what both sides can accept. It is a symptom of bad faith negotiations, carried on by bullies, that one finds in the latest draft sudden insertions of terms that are more and more abhorrent to the weaker side. The May sampling plan is an example of fraudulent negotiation by EPA bullies.

In the May draft, they suddenly delete silica from the test list.

They suddenly announce it's safe to have 95,000 fibers of asbestos per square centimeter at the back of your shelves (a claim that will surprise anyone who knows anything about asbestos) and unlimited concentrations of asbestos under your bed.

They announce they cannot find a signature for the months of combustion, but insist they will use the so-called signature in exactly the same way that was contemplated when the so-called signature was hypothetically assumed to include smoke contamination.

They break their earlier promise to provide the panel with a legal memo on access.

They break their earlier promise to allow this panel to make its own independent technical recommendations, without having a predetermined price tag imposed upon the panel by faceless federal bureaucrats.

Fortunately, this proposal is not the work of this panel, and this panel is under no obligation to endorse it.

You, the members of this panel, did not ask to become the last defense of New York City against this senseless assault by the EPA. Your situation is very much like that of a New York City paper-pusher

who was on his way back through the Holland Tunnel a few decades ago. This guy, like you, never volunteered to be a hero. But a chemical truck was in the tunnel ahead of him, and the chemical truck overturned and burst into flame. Suddenly, the tunnel was filled with black, poisonous smoke. That paper-pushing bureaucrat had no special equipment, no training. But he took it upon himself to direct everyone else safely out of the tunnel. And then, when he saw that everyone else was safe, he got out of the tunnel himself.

That man was my grandfather. He is an example of the kind of New Yorker we need in this room today – the kind of New Yorker who never looked to be a hero, but would never dream of giving way to fear. The kind of New Yorker that never gives a thought to himself while New York City is in danger.

(Comments in the Afternoon Session)

We all heard today 14 out of 17 members of this panel express serious reservations about this EPA testing proposal. Three members of the panel did not express serious reservations. We are entitled to ask why, after 14 months of work by this panel, did the EPA put out, as a proposed final plan, a plan concerning which 14 members of this panel have such strong reservations? The answer is simple. The EPA is not listening to this panel. This panel has expressed the same reservations and raised the same issues before. Today they had to raise the same issues again. Because you're not listening to what they say.

As an objective observer, for example, I can report that more than half of this panel has now gone on the record as desiring that the EPA explore its legal powers, taken together with those of all the other relevant agencies, to compel landlords and employers to permit testing. Yet that desire, expressed by more than half the panel, did not make it into Chairman Oppelt's notes as something he needed to get done.

With regard to legal powers to compel access, Commander Gautier said today that he was aware that the EPA had powers it wasn't using. Mr. Picciano said there were no such powers. Mr. D'Andrea said he had checked with his lawyers, and they were going to get back to him.

Three years and eight months after we were attacked, it is not unacceptable that the conversation on this subject should be, "I think so." "I don't think so." "My lawyers are looking it up." This panel has the right to a complete and authoritative memorandum on this topic – the memo the EPA long ago promised to this panel. This panel has a right to get that memo and read it. The American people have a right to read that memo.

That memo should cover the legal powers of all the relevant federal, state, and municipal agencies, working together. It should reflect Governor Pataki's Executive Order 113, dated September 11, 2001. It should reflect the input of the New York State Emergency Management Office. It should reflect the knowledge of the Coast Guard in this matter, as Commander Gautier was pointing it out to us.

One reason we could meet in June would be to receive that memo and receive an authoritative briefing on it. We could also be briefed on all the outstanding health issues that have not yet been discussed before this panel.

A majority of this panel has told you, Chairman Oppelt, that they want this legal memo. You should provide it to them promptly, if you have any interest in what they say.

## EPA & Testing at Ground Zero

My name is Esther Regelson. Thank you for giving me the opportunity to speak. I represent residents of 109 Washington Street two blocks south of the World Trade Center site, and I have lived there for 21 years. Three and a half years after September 11th, my neighbors and I are being punished for returning to our homes.

Right now, there are at least four contaminated structures in our area that are being torn down without any consistent plan to conduct testing or to take proper precautions during demolition. In fact, the buildings that are coming down now may have pollutants that can recontaminate our homes and endanger us further.

The EPA may now be using the demolition of 4 Albany Street as a template, a good example, for the deconstruction of the other three buildings. But is it? Although the evidence may be circumstantial, on two occasions, I've witnessed workers at 4 Albany, one block away from me, disposing of debris without safeguards, meaning that potentially toxic dust could just blow out into our neighborhood without any of—what they call negative pressure—to keep that dust anchored to the deconstruction site. One authority at the site admitted to me that there may have been some wrongdoing on those two occasions. And that's when I was watching! What happens when no one watches?

The EPA should play a full role in all major renovations and demolitions around Ground Zero – not just Deutschebank and Fiterman Hall, but also the buildings on Thames and Greenwich, 130 Cedar Street and the parking deck next door to me at 111 Washington Street.

Furthermore, I feel that it is unfair to those of us who want to remain here to put up with a shoddy testing plan. Many of us cannot afford to leave. It seems our only alternative is to suffer the consequences of living in a potential Superfund site. I beg of you to test, clean and demolish these sites properly. 9-11 has caused us great hardship. Please don't exacerbate that.

On a final note, although we are not landlords or owners, the residents of my building would gladly volunteer our apartments for testing and cleaning.

Esther Regelson  
109 Washington Street #5  
New York, NY 10006

My name is Vivian Wynne. I am a telecommunications field technician and a Steward from CWA Local 1101. Our local union represents thousands of telephone workers in Manhattan and the Bronx. Our work involves telephone line installation and repair.

I am here today to comment about the sampling in what the EPA calls infrequently accessed and inaccessible areas. These areas that the EPA says are inaccessible or infrequently accessed are my workplace.

I and thousands of other workers like me spend a good part of each and every work day in basements, crawl spaces and ceilings. We work in every building in the areas that have been affected by 9/11 contamination because every building has telephone service.

Every day, we disturb dust behind furniture and above duct work and in utility closets. We pull cabling through ceilings, unintentionally scattering dust everywhere. The only safety protection we have is for our eyes. Safety glasses are not protection against WTC dust inhaled and ingested that won't ever be cleaned up if this sampling plan is approved. This same dust then re-contaminates areas that were clean. The dirt and debris ends up not only in the homes and offices where we work, but it also covers our clothing and then we also contaminate where we live.

The areas where we work - - electrical closets, telephone rooms, utility spaces, and basements - - were never cleaned by many buildings after 9/11. We know that because we were part of the disaster response at Ground Zero. In some buildings close to ground zero the dirt and dust are thick in these areas. We work in these conditions everyday and we would like to be safe. So far the EPA has ignored workplaces completely. Some of my co-workers are already sick because of 9/11 and the rest of us worry about our health in the future. As I understand the EPA's new proposed sampling plan, even if COPC sampling results show a high concentration of contaminants, because it is deemed an inaccessible area the results would not trigger cleaning. This is unacceptable. These areas are not inaccessible, in fact to thousands of workers these areas are accessed regularly. How can the EPA say it will be OK for workers like me to continue to be exposed to these contaminants? We helped get New York back up and running in the days and weeks following the Trade Center disaster and now I don't think it is too much to ask to safeguard our health. I would like all areas considered accessible, tested accordingly, and cleaned when unsafe levels of contamination are found.

Good Morning.

My name is Diane Dreyfus, steering member of Little Italy Neighbors Association. I live at Houston & Bowery, My Dutch daughter miscarried baby Moby in January 2002. He had such a low birth rate that the doctors found it consistent with smoking 40 packs of cigarettes in one day. Neither She nor my neighborhood is included in the EPA scope. So, my intent here is to show that the EPA response on defining boundaries is less credible than the under funded former Soviet Union's in defining those of Chernobyl— In Chernobyl, The Soviets we compelled to act because 22 nations were effected and that pressure was brought to bear on Soviet Government. On the other hand, We are working in camera, here, not applying Standards or rigorous Empirical Scientific method. The post 9/11 mission of the EPA more resembles the Union Carbide Response where Union Carbide was culpable and sought to limit damage awards to victims. In both these cases there was a very clear simple working description of the COPC. Here obfuscation reigns. For example

Current efforts have the following objectives.

(1) TO ESTIMATE THE GEOGRAPHIC EXTENT OF WTC CONTAMINANTS OF POTENTIAL CONCERN (COPC) RESULTING FROM THE BUILDING COLLAPSE PLUME BY SURVEYING RESIDENTIAL AND NON-RESIDENTIAL BUILDINGS IN LOWER MANHATTAN AND A PORTION OF BROOKLYN THAT AGREE TO PARTICIPATE, AND TO PROVIDE A CLEANUP WHEN APPROPRIATE;

It is ludicrous to still be caviling about the Canal Boundaries when we know the Plume stretched from Maryland to New Hampshire, some 1200 miles, by 03OCT01– If nothing else that's a lot of smoke – carcinogenic particles suspended in the air. Hans Blix, director general of the International Atomic Energy Agency said of Chernobyl, "a radioactive cloud doesn't know international boundaries." A radioactive plume floated over the continent for three days until it was detected in Sweden.

Here is a map showing 200 miles around ground zero and the hot spots of cancers particularly children's.

Unlike the WTC Registry, persons in the State Chernobyl Registry are "actively" followed; they must undergo an annual medical examination in which they are systematically examined by a general practitioner and a number of different specialists. The subject is also directed, as appropriate, for additional examinations to oncologists and other specialists."

In addition to medical data, the Registry includes demographic variables, information on location and behavior and on work in the Chernobyl area and when available, dosimetric information—Means are also available in the affected countries to carry out 'passive' follow-up of exposed persons...

Where is such follow up along there trail of fears left by the 9/11 plume?

Dr. Thomas Cahill commented on the UC Davis' tested from 10/2/01 till mid December of 01 saying, "Even on the worst air days in Beijing, downwind from coal-fired power plants, or in the Kuwaiti oil fires, we did not see these levels of very fine particulates," Cahill said. "The amounts of very fine particles, particularly very fine silicon, decreased sharply during the month of October." That would be after the 18th September EPA "all clear."

Cahill said the very fine particles contained high levels of sulfur and sulfur-based compounds. The very fine particles also contain high levels of very fine silicon, potentially from the thousands of tons of glass in the debris. Airborne glass splinters carried toxins into the esophagus and lungs.

...So, what does cleaning up when appropriate mean?? What about where appropriate? The time for "When appropriate" has long past.

It is difficult to understand the EPA with this fishy language or to trust the agency to clean-up – when they did not even issue a minimal Smog alert on Day One – The impact of this failure was that people went jogging to maintain normalcy when they should have been told to "avoid outdoor activities and stay

indoors" like LA residents are cautioned on many a summer day when the basin is brown with pollution. Besides not giving a dust/smoke alert the Sept 18<sup>th</sup> statement that the air was safe to breathe was delivered without having tested for contaminants such as mercury, cadmium, lead, dioxin, PAHs, or PCBs. That's flat out bad science and by extension bad government. EPA stand for Errors, Perpetration and Amnesia.

(2) TO RELATE RESULTS OF THE SURVEY TO BUILDING CLEANING HISTORY, CONSTRUCTION, AND TO THE ROLE OF CENTRAL HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) IF THE INFORMATION COLLECTED WILL SUPPORT SUCH AN ANALYSIS;

EPA's web site calls this "confirmation cleaning." Please explain what this means – the writing isn't clear. Does this mean in order to decide if a building will be cleaned you will examine its cleaning history or does this mean something else... and what if it hasn't been cleaned already-- Will the Brooklyn outreach be as stealthy, failed and fumbled as Manhattan's was?

(3) TO PROVIDE THE DATA NECESSARY TO DETERMINE IF A PHASE II SAMPLING SHOULD PROCEED, WHICH WILL TEST FOR THE PRESENCE OF COLLAPSE RESIDUES IN AREAS BEYOND THE BOUNDARIES OF THE AREAS CURRENTLY TESTED, AND TO PROVIDE THE DATA NECESSARY TO DETERMINE WHETHER AND WHAT FURTHER ACTIONS ARE WARRANTED;

EPA's own site references an article for dioxin information which says...and I quote" The EPA's draft "reassessment" of the health effects of dioxin estimates that the lifetime risk of getting cancer from dioxin exposure is between one in 1,000 and one in 10,000. Dioxin is linked to severe reproductive and developmental effects. Exposure can damage the immune system, leading to increased susceptibility to infectious diseases, and can disrupt the function of regulatory hormones. Infertility, birth defects, impaired child development, diabetes, and thyroid changes are linked to dioxin exposure. Since we are already saturated with dioxins, it will only take a small additional exposure to trigger adverse health effects. In other words, for most people, any exposure to dioxin, no matter how small, leads to some adverse health effects. It is not safe and you can't test for it 3 years after the fact.

4. To validate a screening method to identify WTC dust.

Which will include what components in addition to these evident at Deutsche Bank? What makes slag wool such an integral part of the potential signature... David Newman has pointed out that these particles could have traveled differently than other dangerous materials given their size and weight... Remember the Hot spots on the Chernobyl map??

Very fine particles

"There were numerous events when winds lasting six to eight hours carried unprecedented amounts of very fine particles to the sampling site. In the largest spike, the DELTA Group analysis found 58 micrograms per cubic meter of very fine particles in one 45-minute period – "an extremely high peak,"

Cahill said the very fine particles contained high levels of sulfur and sulfur-based compounds. The very fine particles also contain high levels of very fine silicon, potentially from the thousands of tons of glass in the debris.

Coarse particles

Similar to the high concentrations of very fine particles, virtually all the air samples from the trade center site carried high concentrations of coarse particles – those about 12 micrometers to 5 micrometers in diameter.

"These particles simply should not be there," Cahill said. "It had rained, sometimes heavily, on six days in the prior three weeks. That rain should have settled these coarse particles." The finding suggests that coarse particles were being continually generated from the hot debris pile.

What will happen to the demolition debris of the Deutsche Bank and the other mausoleums that must be cleared away to make way for the new WTC?

Is there a fall back plan if a signature, marker, or whatever you want to call it can't be created because of the assumptions are unworkable?

Finally can I expect my Dutch Daughter to live well enough to raise Maud Emma?

**Comments to the public EPA panel meeting from Jeff Hyman, Occupational Safety and Health Director, Central Labor Rehabilitation Council, NYC Central Labor Council – Tuesday, May 24, 2005**

Good Morning,

My name is Jeff Hyman and I'm the Occupational Safety and Health Director of the Central Labor Rehabilitation Council, part of the NYC Central Labor Council.

As you have heard this morning, labor and the community have been working very hard to ensure the safety and health of all the workers, residents, and the public affected by the WTC disaster. There have been too many instances where policies that affect workers or the public are carried out without their input. Even when their concerns are heard, policies are instituted without regard to their concerns. We do not want the EPA's sampling plan to be another example of concerns not being taken seriously.

How can the proposed sampling be effective if landlords and employers are given the authority to decide whether or not testing should be done in their spaces? How can the EPA expect a landlord or employer to even know where sampling should or shouldn't be conducted? If sampling is not inclusive of all the areas of a space, then there is a greater probability of contamination not being detected. How can this protocol not include sampling of the dead spaces in the Heating, Ventilation, and Air Conditioning (HVAC) ducts? There is a possibility that dust contaminated with dangerous levels of asbestos, mercury, lead, heavy metals and other toxins, have collected in the dead spaces of these ducts and could be re-entrained later on. That same contaminated dust could have contaminated carpets, exposing young children to unhealthy concentrations of lead. Studies have shown that even low concentrations of lead can lead to learning disabilities in children. Spaces such as the area under beds are deemed inaccessible under this testing plan. How many more inaccessible spaces would be missed under this plan?? If this sampling plan remains as the EPA is proposing, we believe that it is a serious mistake. Too many people have already been hurt by this disaster. Now we have a chance to prevent future illnesses and deaths. We urge you to seriously consider the comments from labor and the community and make the appropriate changes to ensure the safety of workers, the community, and the general public.



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**TESTIMONY OF SUZANNE Y. MATTEI, NYC EXECUTIVE OF SIERRA CLUB  
BEFORE THE EPA WORLD TRADE CENTER EXPERT TECHNICAL REVIEW PANEL  
TUESDAY, MAY 24, 2005**

My name is Suzanne Mattei. I am the New York City Executive for the Sierra Club. My testimony today focuses on three points.

First, this testing program is critical to determine how we go about a safe recovery in lower Manhattan. Many area buildings are undergoing renovation. Have those buildings been tested? Is anyone bothering to figure out whether or not those workers are being exposed now to World Trade Center dust, including dust from so-called "inaccessible spaces."

Second, why is EPA using a bureaucratic box that doesn't fit? EPA plans to test only on alternate floors of buildings – not unreasonable to cut costs. But it proposes to average the test results from locations where 9/11 dust is found in deciding whether or not to clean the whole building. That might make sense if EPA were assessing a landfill's impact on groundwater, where the human risk is from drinking water. But here, we are dealing with individual dwelling units and direct human contact. EPA is thinking from inside the wrong box, and it needs to get out.

No public health rationale justifies failing to assess the potential risk to a family in apartment 5A indicated by heavy contamination in apartment 4D simply because that is canceled out by averaging it with much lower contamination from apartment 6F. The whole building should be tested and cleaned if significant contamination is found.

Third, why is EPA basing its plan on bad logic? EPA plans only to clean up dust that meets a signature test. When I was a kid, I read an entry about bugs in the Golden Book Encyclopedia. It said, "All bugs are insects, but not all insects are bugs." Here, EPA may be able to prove that all dust containing certain proportions of slag wool and other material is World Trade Center dust, but it will not be able to prove that all World Trade Center dust contains those substances or in that proportion.

Why?

Because no one did the comprehensive testing that should have been done after the disaster. No one measured the reach of contamination, or characterized its content. Now, over three years later, it would be unfair to the public and unconscionable as a public health measure to insist that all toxic dust is the resident's or worker's problem unless EPA proves beyond a shadow of a doubt that it came from the towers. If the contamination is reasonably likely to have come from the attack, EPA should clean it up.

The goal of this project must be to find the potentially harmful World Trade Center pollution that is still in buildings and clean it up – not to find as little as possible or to do as little as possible.

Thank you for your time and consideration.

**US Environmental Protection Agency  
World Trade Center Expert Technical  
Review Panel**

**May 24, 2005**

**National Museum of the American Indian  
The Customs House  
One Bowling Green  
New York, New York**

**Comments of Paul Stein, Health & Safety Committee Chairperson  
PEF Division 199, NYS Public Employees Federation, AFL-CIO**

My name is Paul Stein. I am the Health & Safety Committee Chairperson of Division 199 of the New York State Public Employees Federation, AFL-CIO, popularly known as PEF. My union represents approximately 53,000 professional, scientific and technical employees of the State of New York. About 2,000 of our members currently work in lower Manhattan. I speak today on behalf of several hundred PEF members who work at 90 Church Street, directly adjacent to the World Trade Center site.

We cannot support the current testing plan proposed by this EPA panel because we do not believe that its design will allow it to accurately and comprehensively measure the extent of contamination that remains from the events of September 11, 2001. We endorse and urge you to carefully consider all of the criticisms raised and the recommendations made by the representatives of the World Trade Center Community/Labor Coalition. We invite you to work with us to revise the current plan to create a testing scheme whose results all affected parties will have confidence in.

There is a crisis of confidence in Lower Manhattan, in Brooklyn, and in surrounding areas. This crisis arose as a result of the past statements and actions of the EPA and other Federal, State, and City agencies that failed to protect the residents, workers, and students who were exposed to contamination caused by the events of September 11<sup>th</sup>. The current testing plan will not solve this crisis of confidence. It will lead to more distrust. Only by your reexamining and perfecting the testing plan can our confidence be regained and our health be protected.

As workers in Lower Manhattan, we are particularly concerned about the voluntary nature of the testing plan. We do not believe that most landlords and employers will

allow their buildings and work sites to be tested. Only the minority of buildings and offices that have been thoroughly cleaned will allow EPA testing, thus skewing the results and invalidating the testing plan.

The May 23-June 6, 2005 issue of *The Battery Park City Broadsheet* contains an excellent article summarizing a number of criticisms of the panel's testing plan. In response to criticism of the voluntary nature of the testing, the reporter for the *Broadsheet* made some inquiries and recounted the outcome:

No owners or managers contacted by the *Broadsheet* would comment on the likelihood of their participation in the new testing program, including those associated with buildings on Broad Street, Liberty Street, Rector Place, and South End Avenue. One agent spoke candidly off the record about how she wasn't surprised that managers are avoiding the issue of health versus value of real estate. "You don't want to say no," the agent said, "but people would rather duck and run." (p. 1)

We believe the same avoidance would hold true for employers, who would not wish to expose themselves to legal liability, business disruption, and difficulty recruiting and retaining workers, if contamination were found on their premises.

We urge the EPA to do everything in its power, in cooperation with other Federal, State, and City agencies that may have relevant statutory authority, to see to it that no landlord or employer may opt out of a well-designed environmental testing plan.

Thank you.

Statement

of

Stanley Mark

On Behalf of

Asian American Legal Defense  
and Education Fund

Submitted

to

WTC Expert Technical  
Review Panel

Convened

May 24, 2005  
U.S. Customs House  
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My name is Stanley Mark and I am the Program Director and an attorney at the Asian American Legal Defense and Education Fund (AALDEF). EPA must strengthen its revised proposed testing plan for World Trade Center dust and contamination. This draft proposal is inadequate to protect the public health. Current medical research data describing the health impact of the World Trade Center collapse and ensuing fire at Ground Zero require a plan to test and clean areas extending beyond east of Clinton Street and western Brooklyn not covered in this plan.

AALDEF's office is 9 blocks north of Ground Zero and 5 blocks south of Canal Street which became the arbitrary boundary for 9/11 relief programs. AALDEF has represented and assisted thousands of Lower Manhattan residents with obtaining relief assistance including families who lost loved ones at Ground Zero. Most of my clients live and work in Chinatown and the Lower East Side while many reside in Brooklyn and New Jersey. Many are enduring respiratory problems, skin rashes, stomach problems, anxiety, and other illnesses related to the 9/11 attack.

In 2004, AALDEF along with members of the Beyond Ground Zero network (BGZ) started a joint clinic with Bellevue Hospital with the assistance of Dr. Joan Reibman who appeared before this panel last year to describe her work on respiratory illnesses among lower Manhattan residents. At this joint clinic, doctors treat many residents in the Lower East Side and Chinatown who are seeking medical treatment for 9/11 related illnesses. AALDEF staff and BGZ members have surveyed more than a thousand residents and have escorted more than 100 patients to this clinic. Many of our client/patients do not live within the arbitrary boundaries set by the 9/11 relief programs including the WTC Registry which did not provide medical treatment.

According to 2 recently published studies about environmental health impacts due to the toxic fallout of 9/11, one by Dr. Joan Reibman and the other by Dr. Anthony Szema, the documented medical impact extended in 5 mile radii from Ground Zero. Dr. Reibman's study encompasses residents living in Smith Projects, Chatham Towers, and Chatham Green located in Chinatown and the Lower East Side as well as Battery Park City in the West Side. Her study demonstrated a 3-fold increase of respiratory illnesses characterized as new onset of asthma. Dr. Szema's study focused on more than 200 Chinese children who were treated for asthma before and after the 9/11 attacks by the same doctors. His study showed that the number of

doctor visits and the doses of asthma medication increased in a statistically significant manner for children living within a 5-mile radius from Ground Zero. See his map attached for your convenience showing the areas (zip codes) affected by the collapse of WTC and the fire and smoke from Ground Zero. Both doctors appeared before you and presented their findings and recommendations to test and clean these areas.

In the absence of representative sampling (proper standard monitoring of air, water, and dust samples) in the weeks and following the 9/11 tragedy, the federal and local government agencies had declared that the air safe and the Centers for Disease Control made no pronouncements to physicians about how to treat victims of WTC fallout. The federal government must allocate financial resources for the clean up of Lower Manhattan and Brooklyn and provide health coverage for medical treatment for all who are affected by the 9/11 toxic fallout.

These two recent studies documenting the environmental health impacts strongly suggest the minimum area for testing and clean up would be at least the areas revealed on the attached map from Anthony Szema's study – a study that you already have. With more research and medical studies, the 5 mile radii could be extended further and enlarge the findings of health impacts in a larger area. One such study published in 2005 is "Asthma in Medicaid Managed Care Enrollees Residing in New York City: Results From a Post-World Trade Center Disaster Survey" which was published in *Journal of Urban Health: Bulletin of the New York Academy of Medicine* (2005). It makes the case for a larger area of western Brooklyn where only low income residents had an "elevated odds ratio for emergency department/inpatient hospitalizations with diagnosis of asthma post 9/11 (adjusted OR=1.52)" ; this survey and study was conducted by Victoria L. Wagner, Marleen S. Radigan, Patrick J. Roohan, Joseph P. Anarella, and Foster C. Gesten.

In conclusion, this testing plan is inadequate for cleaning this minimum area. A plan must be developed to test and clean up Lower Eastside, Chinatown, and western Brooklyn. Furthermore, my clients/patients at Bellevue Hospital support federal legislation that allocates federal resources to cover medical and research costs for tracking and treating all of those affected by the 9/11 tragedy including those of us living and working in the Lower East Side and Chinatown and Brooklyn without artificial boundaries.



**FIG 1.** Region 1, highlighted in red, indicates zip codes less than or equal to 5 miles from the WTC. Region 2 includes all other zip codes.

### PEFR trends

PEFRs were converted into percent predicted values on the basis of expected values for a given height. Means of the percent predicted values are reported for yearly quarters from September 11, 2000–September 10, 2002,

in Table IV and Fig 2. Throughout the 2-year period, all values in region 2 were within normal limits (>80% predicted). In region 1, however, values decreased to 73.4% for the quarter after September 11, 2001. The values in region 1 gradually returned to baseline, within the normal range, 2 quarters after the disaster.



# ENVIRONMENTAL TOXICOLOGY LABORATORY, LLC

## Testimony to the EPA Expert Panel on WTC Contamination

Robert L. Jaffe, Ph.D.

May 24, 200

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<http://www.envirolab.com>

## An Open Letter to Dr. Nancy Adams

(Director of EPA Homeland Security, Consequences and Decontamination Division)

Dear Dr. Adams,

Firstly, I should like to thank you for providing Environmental Toxicology Laboratory with dust samples taken from the 5<sup>th</sup>, 7<sup>th</sup>, 22<sup>nd</sup>, and 41<sup>st</sup> floors of the Deutsche Bank located on 130 Liberty Street. The results of the toxicity tests using the protist organisms, *Glaucoma chattoni* and *Tetramitus rostratus* are presented in ETL's February 23, 2005 Report to the EPA:

"Toxicity of Deutsche Bank Dust Samples" (<http://www.envirolab.com>).

Copies of the report (short version) also were distributed to members of the EPA's Expert Panel on WTC Contamination. At this point in time, ETL has not received any comments in response to the issues raised nor in response to the recommended research proposals directed towards a better understanding of the toxicity data provided in the report. Let me restate the main issues presented in the report:

- Assessment of *Tetramitus* Toxicity provides data on the **synergistic effect** of an organism exposed to the **mixture of pollutants**.
- Assessment of *Tetramitus* Toxicity provides data on **whole particles**, including those limited to the 2 – 5  $\mu\text{m}$  size range.
- The growth inhibition of *Tetramitus* suggests that **DNA damage** may be the mechanism which causes this toxicity. DNA damage in humans exposed to WTC contaminants would produce long-term health effects.
- The swimming behavior response, of *Glaucoma* ciliates, exposed to Deutsche Bank particles, provides a real time **biomonitoring assay**, which produces a toxicity signal within **10 minutes** after initial exposure.
- Validation of the *Glaucoma* Swimming Behavior Assay for the **Assessment of Worker Exposure** would provide a valuable tool for the upcoming Deutsche Bank deconstruction activities.

Letter to Dr. Nancy Adams, page 2.

It is unfortunate that the EPA cannot provide funds for continuation of ETL's toxicity studies. Continuation of this research is important for a better understanding of the complex issues involving exposure to WTC contaminants. More importantly, these assays need to be validated in order to utilize these toxicity tests for **real-time monitoring of future terrorist attacks.**

Respectfully submitted,

Robert L. Jaffe, Ph.D.  
Director  
Environmental Toxicology Laboratory

Cc.  
Dr. Jacky Rosati, EPA, Department of Homeland Security  
U.S. Congresswoman Carolyn Maloney  
U.S. Congressman Jerold Nadler  
U.S. Senator Hillary Rodham Clinton  
U.S. Senator Joseph I. Lieberman  
N.Y. Governor George Pataki  
N.Y.C. Mayor Michael Bloomberg  
Dr. Chandler Fulton, Professor of Biology, Brandeis University  
David Newman, NYCOSH

**Toxicity of Deutsche Bank Dust Samples**  
**(Interim Progress Report-I)**  
**(Short Version)**

**Robert L. Jaffe, Ph.D., Marianela Tricoche Camacaro, and Michael R. Jaffe**

**Report Submitted to the EPA Safe Buildings/Homeland Security Group**

**February 23, 2005**

**Environmental Toxicology Laboratory LLC**

**<http://www.envirolab.com>**





# ENVIRONMENTAL TOXICOLOGY LABORATORY, LLC

**(Short Version)**

## **Toxicity of Deutsche Bank Dust Samples** <sup>(1)</sup>

(Interim EPA Progress Report-I)

Environmental Toxicology Laboratory has developed 2 new **biomonitoring** tests, using single cell organisms to measure toxicity. These tests are capable of measuring the **synergistic effects** of pollutant **mixtures**, as contrasted to the chemical analyses of individual toxic agents. *Glaucoma chattoni* is a free-swimming ciliate (surface area covered with hair-like structures-cilia-which beat synchronously and propel the organism through liquid media). *Tetramitus rostratus* is a flagellate with four longer structures called flagella. The flagella act much the same as a boat propeller and their rapid beating causes forward movement.

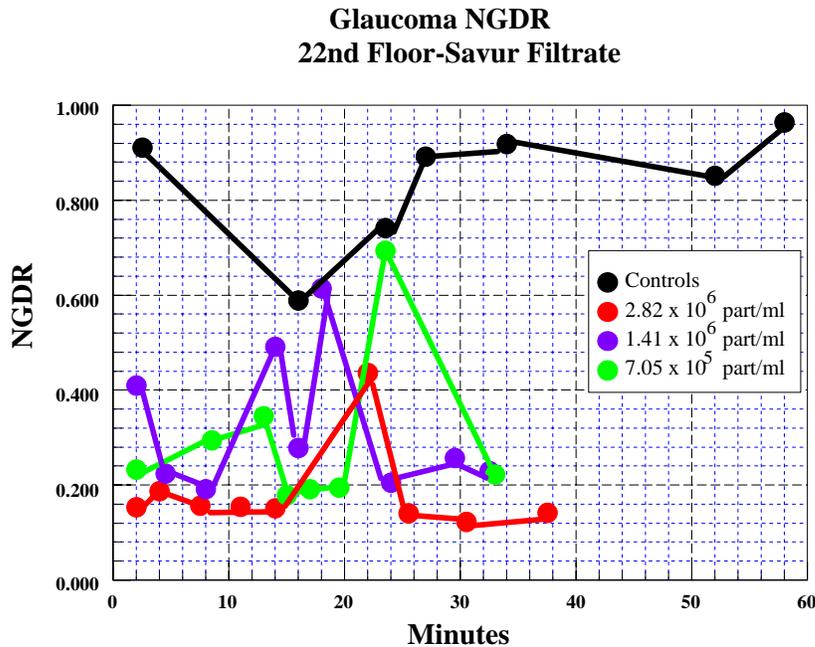
The initial Swimming Behavior and Growth Inhibition Assays, describing the responses of *Glaucoma* and *Tetramitus* to exposure to toxic Deutsche Bank dust samples, provide a framework for the development of **rapid and cost-effective methods for the assessment of WTC contaminant exposure**. Because these protists ingest particles, the need for costly and labor-intensive particle extraction procedures is eliminated. Thus, **whole particle toxicity** measurement is now feasible. These assays could substantially increase the number of samples which could be evaluated in the proposed **Buildings Survey** of Lower Manhattan and Downtown Brooklyn and the **Deutsche Bank Deconstruction**.

The Deutsche Bank Dust Samples were sent to ETL by Drs. Nancy Adams and Jacky Rosati of the EPA Department of Homeland Security, Consequences and Decontamination Division. EPA has agreed to share the chemical analysis data of these dust samples with ETL in order to evaluate the toxicity test results.

The **rapid swimming behavior changes (10 minutes)** of *Glaucoma* ciliates (in response to Deutsche Bank dust exposures) could provide rapid assessment of filters recovered from **personal air monitors** of individual workers involved in the upcoming Deutsche Bank Deconstruction. Higher levels (hot spots) of contamination, which were not detected in general area air sample monitoring, may occur in "local" areas of work. **Worker exposures** could be continuously monitored and demolition procedures and work practices could be modified where appropriate.

## Results

1. **Swimming Behavior abnormalities** were observed in the ciliate *Glaucoma chattoni*, which were exposed to Deutsche Bank particle suspensions.  
(Changes were observed in less than 10 minutes. See Figure 1)



**Figure 1.** Swimming Behavior Response of *Glaucoma chattoni* ciliates which were exposed to a Deutsche Bank Dust Sample. The neat particle suspension was filtered through a Savur filter Assembly (pore size = 25  $\mu\text{m}$ ) in order to remove larger particles.

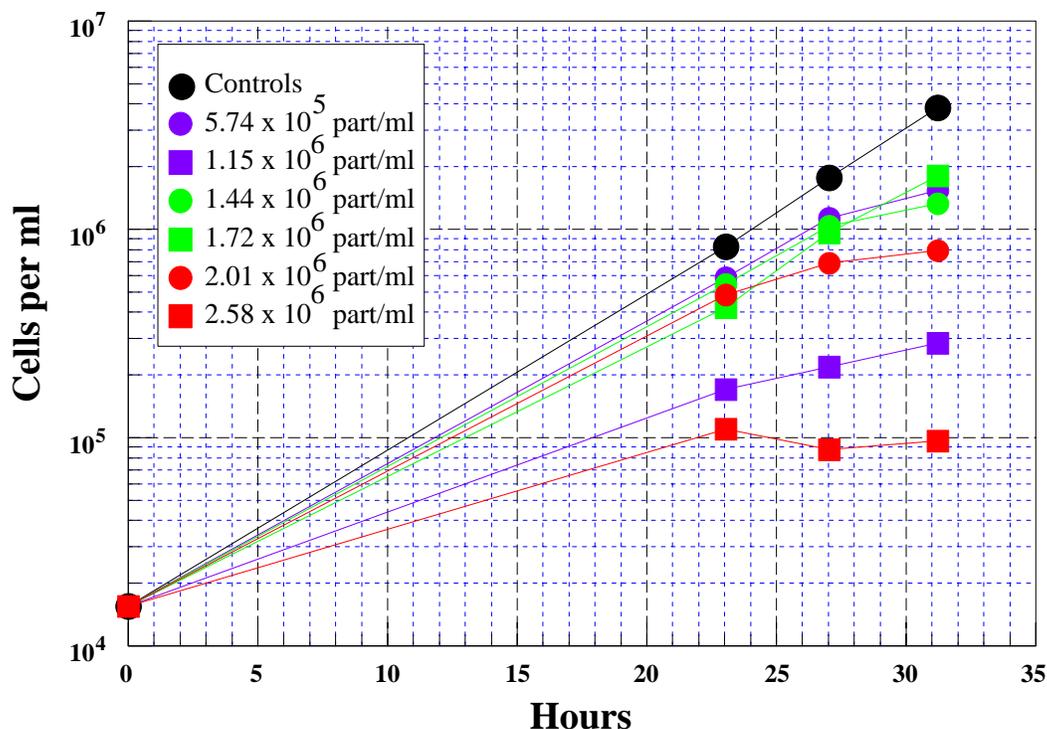
The **NGDR** is the **net to gross displacement ratio**. This statistic is a measure of the relative straight distance traveled by the ciliates. *Glaucoma* ciliates normally swim in straight paths. Ciliates which are exposed to toxic agents swim in a circular path because some of the surface cilia are damaged. The normal beating synchrony of the cilia is disrupted.

A NGDR ratio of 1 would indicate a perfect straight line, while a ratio near zero would indicate a circular path. Multiple time points are sampled in order to evaluate statistical variations. Similar results also were obtained for 5<sup>th</sup>, 7<sup>th</sup>, and 41<sup>st</sup> floor dust samples

The NGDR parameter was developed by Dr. Scott Gallager of the Woods Hole Oceanographic Institution (WHOI). WHOI is the recipient of a DoD grant, with ETL as a sub-contractor, for the project "Terrorist Poisoning of Drinking Water".

## 2. Tetramitus Growth Inhibition

### Tetramitus Growth Curves 2-5 $\mu\text{m}$ Particle Suspension



**Figure 2** Growth of *Tetramitus* flagellates exposed to different concentrations of a 2-5  $\mu\text{m}$  particle suspension prepared from a Deutsche Bank 41<sup>st</sup> Floor dust sample. Growth of flagellates was **completely inhibited** after 23 hours of incubation in cultures containing  $2.58 \times 10^6$  particles/ml. This growth inhibition pattern is consistent (not proof positive) with **DNA damage** to the exposed flagellates at this concentration.

The ability of *Tetramitus* flagellates to ingest particles allows for the assessment of **whole particle toxicity**. Previous *Tetramitus* studies with known DNA damaging agents produced positive toxicity responses in 26/27 of the agents tested. A linear dose response also was observed in flagellates exposed to increasing concentrations of diesel particulates.

(National Institute of Standards and Technology - Standard Reference Material # 2975).

**EPA has recently classified diesel particle exhaust as a human carcinogen.**

Direct proof of DNA damage could be achieved by measuring the changes in the DNA (DNA adduct formation) extracted from flagellates exposed to different concentrations of a reference DNA-damaging agent such as benzo [A]pyrene; and subsequently to WTC particles. ETL has arranged for collaboration with Dr. David Mitchell of the U.T. M.D. Anderson Cancer Center for this DNA damage study. Dose-dependent DNA damage in *Tetramitus* flagellates exposed to WTC particles then could be calibrated to dose-dependent levels of flagellate growth inhibition. Thus, measurement of growth inhibition now would serve to indicate dose-dependent DNA damage to flagellates exposed to various dust samples. *Tetramitus* DNA then could serve as a surrogate for human DNA damage. Human DNA damage would indicate potential **long-term adverse health effects**. (DNA damage is the first step in the conversion of normal cells to cancer cells. DNA damage also impairs the immune system)

## **Conclusion:**

The use of two protist organisms to assess the toxicity of WTC contaminants allows for the rapid and cost-effective **evaluation of mixtures** of contaminants and **whole particle toxicity**. The scope of the upcoming Buildings Survey can be substantially increased to cover a larger geographic area. Furthermore, worker exposure monitoring in the Deutsche Bank Deconstruction is now feasible, as well as increased frequency of air monitoring.

Proposals for further study are listed in the complete report (Appendix-III)

1. 2005, Robert L. Jaffe, Marianela Trichoche Camacaro, and Michael R. Jaffe Toxicity of Deutsche Bank Dust Samples, Report Submitted to the EPA Safe Buildings/Homeland Security Group, February 23, 2005.  
(<http://www.envirolab.com>)

# **Worker Exposure Feasibility Study**

**Robert L. Jaffe, Ph.D. and Marianela Tricoche Camacaro**

**May 11, 2005**

**Environmental Toxicology Laboratory LLC**

**<http://www.envirolab.com>**



# **Worker Exposure Feasibility Study**

**Purpose:** Determine the utility of the *Glaucoma* Swimming Behavior Assay for rapid assessment of Worker Exposure to Deutsche Bank Dust Particles

**Design:**

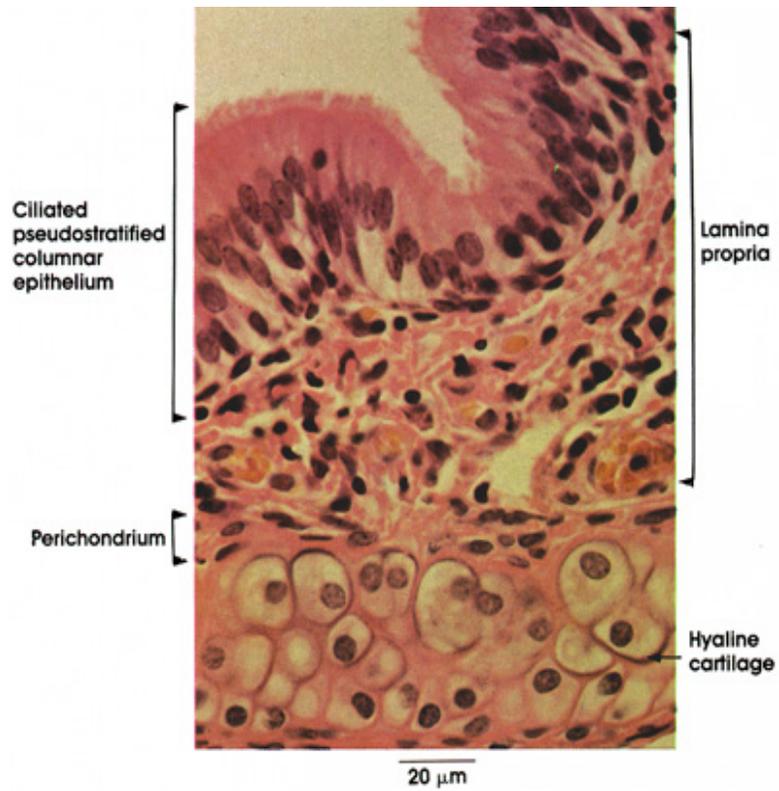
- Personal air monitors will be placed in enclosed areas (Tents) in Deutsche Bank Locations.
- Fans will be used at low, medium, and high speeds to agitate dust and create increased exposure conditions.
- Filters from personal air monitors placed on manikins inside the tent will be removed after exposure intervals of 4, 6, and 8 hours.
- Particles from the filters will be suspended in an aqueous buffer medium and counted using a Spectrex 2000PC Laser Particle Scanner.
- *Glaucoma chattoni* ciliates will be exposed to different concentrations of the particle suspensions and their swimming behavior responses will be measured for periods of 15 minutes. The methods developed by the Woods Hole Oceanographic Institution/Environmental Toxicology Laboratory will be used to establish LOEC (lowest observed effect concentration) and NOEC (no observed effect concentration) for each sample.
- The Swimming Behavior Response data will be compared to measured COPC levels of the same samples (Lead, Asbestos, PAHs, Quartz, and synthetic vitreous fibers).
- Benchmark Swimming Behavior values, based on comparison to COPC values will be established.

**Significance:**

- Rapid Assessment of Particle Toxicity will provide an early warning signal. (15 minute *Glaucoma* Assay + 15 minute sample preparation)
- On Site Evaluation of Whole Particle Toxicity

**Relevance to Humans:**

The cilia found on the surface of *Glaucoma* ciliates have the identical morphological fine structure as the cilia located on the ciliated epithelium of the human trachea (Figure 1). Thus, toxic agents which cause damage to *Glaucoma* ciliates will have a similar effect on human tracheal ciliated epithelium. The function of the ciliated epithelium cells is to move mucous containing particles out of the respiratory system by coughing and expectorant activity. This process would be impaired by damage to the cilia.



**Tracheal Epithelium**



*Glaucoma chattoni*