

ADVISORIES

FACT SHEETS

DOH

NYCDEP October 25, 2001 Instructions to Residents



Department of Environmental Protection

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October 25, 2001

Dear Residents of Lower Manhattan:

Since September 11th, the U.S. Environmental Protection Agency (EPA), NYC Department of Environmental Protection (DEP), NYC Department of Health (DOH), and the Occupational Safety and Health Administration (OSHA), have been taking samples of the air, dust, water, river sediments and drinking water and analyzing them for the presence of pollutants. The samples are evaluated against a variety of benchmarks, standards and guidelines established to protect public health under various conditions. These agencies consider the amount of time a person is exposed to a particular pollutant and where—a school, workplace or home—in creating these criteria.

The following is a description of some of the benchmarks, standards and guidelines these agencies are using to evaluate environmental conditions in the aftermath of the World Trade Center disaster

Asbestos in the Air / in Open Spaces

EPA is requiring the strictest protective standard under AHERA, the Asbestos Hazard Emergency Response Act, for asbestos in outdoor and indoor areas. (This standard is used to determine whether children may reenter a school building after asbestos has been removed or abated.) To be as protective as possible, EPA, together with NYCDEP and all the other health and environmental agencies, are requiring school reentry standards in tests around the World Trade Center site. NYCDEP, USEPA, and NYC Department of Sanitation worked to perform cleanups of all dust in exterior areas with HEPA vacuums and wetwashing. NYCDEP and EPA have both conducted tests in exterior spaces and all exterior areas of Lower Manhattan that were closed passed their strict protective standards before being opened again to the public.

Asbestos in Dust in Buildings

If a substance contains more than 1% asbestos, it is considered to be an "asbestos-containing material." There are Federal, State, and City regulations in place to ensure the proper handling and disposal of asbestos-containing material. If a substance contains 1% or less asbestos, these regulations do not apply. •

EPA is using the 1% definition in evaluating exterior dust samples in the Lower Manhattan area near the World Trade Center. All affected landlords have been instructed to test dust samples within their buildings utilizing this standard. Landlords were notified that they should not reopen any building until a competent professional had properly inspected their premise. If more than 1% asbestos was found and testing and cleaning was necessary, it had to be performed by certified personnel.

Drinking Water

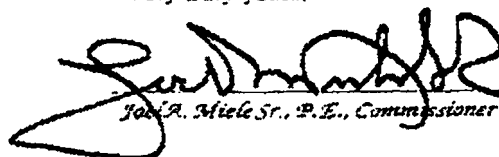
NYC DEP continuously tests drinking water every day for multiple parameters. After the World Trade Center disaster, DEP expanded the number of tests taken and the parameters of testing. EPA also conducted separate tests. Before and after the event, New York City drinking water has met and continues to meet all Federal, State, and City standards. Testing at a heightened level is continuing.

NYC Department of Health

The New York City Health Commissioner Neal L. Cohen, M.D. has reviewed the findings of the various testing agencies and issued the following statements to residents. He said "despite the smoky conditions in areas of lower Manhattan that are close to the World Trade Center site, test results from the ongoing monitoring of airborne contaminants indicate that the levels continue to be below the level of concern to public health. Nonetheless, while debris continues to be disturbed, and while flare-ups of smoke continue to permeate the downtown area, air-testing results will continue to be monitored, and appropriate health recommendations will be issued as necessary." Dr. Cohen added, "As work continues at the disaster site, the presence of dust and smoke odor in the downtown area has been of understandable concern to residents. However, air monitoring by Federal, State and City agencies has indicated that the levels of particulate matter being detected are below the level of public health concern and do not pose long-term health risks to the general public."

In addition to air monitoring activities, efforts are being made daily to suppress dust and smoke at the World Trade Center disaster site. Results of daily dust sampling conducted by the U.S. Environmental Protection Agency is available online at epa.gov. Factsheets detailing Health Department recommendations pertaining to air quality, asbestos, safely reoccupying homes and buildings, and worker safety are available online at nyc.gov/health. For more information about all Health Department activities, New Yorkers can call (212) 227-5269. For information about asbestos issues, you can consult our website at nyc.gov/dep or call the New York City Department of Environmental Protection at (718) DEP-HELP and ask to be referred to our asbestos staff.

Very truly yours,



Joe A. Niele Sr., P.E., Commissioner



DEPARTMENT OF HEALTH

NEAL L. COHEN, M.D.
Commissioner

SANDRA MULLIN
Associate Commissioner

FOR IMMEDIATE RELEASE
Monday, September 17, 2001

CONTACT: SANDRA MULLIN/ANDREW TUCKER
(212) 447-8232*
(917) 578-6208

HEALTH DEPARTMENT OFFERS RECOMMENDATIONS FOR INDIVIDUALS RE-OCCUPYING COMMERCIAL BUILDINGS AND RESIDENTS RE-ENTERING THEIR HOMES

The New York City Department of Health announced today recommendations for building owners/managers and individuals who are being allowed to re-enter their businesses or homes for the first time since the World Trade Center disaster on September 11. The Health Department has been collaborating with numerous City, State, and Federal agencies to monitor potential public health impacts in the general vicinity of the World Trade Center blast zone.

New York City Health Commissioner Neal L. Cohen, M.D., said "As some buildings near the World Trade Center may have sustained structural damage, experienced power loss, and/or been subject to migrating dust and debris from the blast, the Health Department working with numerous agencies have been actively monitoring the condition of buildings in and around the blast area to determine when occupants may safely resume tenancy. Property owners and managers are being instructed to assess the stability and safety of their buildings. This includes checking and, if necessary, restoring utility services."

Recommendations for Re-entry into Your Homes

In your home, first make sure that conditions are safe. Enter your home dressed in a long-sleeve shirt and pants, and with closed shoes. Upon entry:

- Check for the smell of gas. If the apartment smells of gas, leave immediately and report it to your building manager and to Con Edison.
- Check for broken glass and fixtures. Wrap any broken glass in paper and mark it "broken glass." If large pieces of glass are broken, ask your building superintendent for help.
- Run hot and cold water from each of the taps for at least two minutes, or until water runs completely clean, whichever is longer.
- Flush toilets until bowls are refilled. For air pressure systems, you may need to flush several times. If there are any problems with the toilet or plumbing system, call a plumber -- do not try to fix the problem yourself.

-- More --

***The Main Office of the NYC DOH has been temporarily relocated to 455 1st Avenue.**

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Recommendations for Food Left in Homes and Office Spaces

The power outage in much of lower Manhattan may have caused refrigerated and frozen food to spoil. Raw or cooked meat, poultry and seafood, milk and milk-containing products, eggs, mayonnaise and creamy dressings, and cooked foods should be thrown out if power was out for two or more hours. Frozen foods that have thawed should be thrown away. Do not re-freeze thawed food. Throw away any food that may have been contaminated with dust, except for food in cans, jars, or containers with tight-fitting lids. Wash dust-covered cans and jars with water and wipe clean. When it comes to food left in your building, ***if in doubt, throw it out.***

Recommendations for Cleaning Homes and Office Spaces

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Where dust is thick, directly wet the dust with water, and remove it in layers with wet rags and mops. Dirty rags can be rinsed under running water, (try not leave dust in the sink to dry). Used rags and mops should be put in plastic bags while they are still wet and bags should be sealed and discarded. Cloth rags should be washed separately from other laundry. Wash heavily-soiled or dusty clothing or linens twice. Remove lint from washing machines and filters in the dryers with each laundry load. Rags should not be allowed to dry out before bagging and disposal or washing.

Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust and may put dust back into the air where it can be inhaled. HEPA (high efficiency particulate) efficiency filtration vacuums capable of trapping very fine particles can be used. If a HEPA vacuum is not available, either HEPA bags or dust allergen bags should be used with your regular vacuum. Carpets and upholstery can be shampooed and then vacuumed.

If your apartment is very dusty, you should wash or HEPA vacuum your curtains. If curtains need to be taken down, take them down slowly to prevent making dust in the air. To clean plants, rinse leaves with water. Pets may be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home.

Additional recommendations include:

- Avoid sweeping or other outdoor maintenance;
- Keep outdoor dust from entering the home;
- Keep windows closed;
- Set the air conditioner to re-circulate air (closed vents), and clean or change the filter frequently;
- Remove shoes before entering the home for several days (once you first make sure there is no broken glass).
- Air purifiers may help reduce indoor dust levels. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

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DEPARTMENT OF HEALTH

NEAL L. COHEN, M.D.
Commissioner

SANDRA MULLIN
Associate Commissioner

FOR IMMEDIATE RELEASE
Sunday, September 16, 2001

CONTACT: SANDRA MULLIN/GREG BUTLER
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**IN RESPONSE TO THE WORLD TRADE CENTER DISASTER,
NEW YORK CITY DEPARTMENT OF HEALTH PROVIDES HEALTH AND SAFETY
PRECAUTIONS AND CONDUCTS ESSENTIAL PUBLIC HEALTH ACTIVITIES**

Working closely with City, State and Federal agencies since September 11, the New York City Department of Health has been conducting several public health activities in response to the World Trade Center disaster. Foremost among these are monitoring air quality in the general vicinity of the World Trade Center, working with other agencies to ensure that worker safety measures for search and rescue workers are in place, conducting surveillance for illnesses and injuries at New York City Hospitals, and mobilizing environmental investigation teams to ensure the safety of the food and water supplies.

Monitoring Air Quality and Respiratory Issues

While excavation continues at the site, the Health Department has been monitoring the air quality tests being conducted by the U.S. Environmental Protection Agency (EPA) and the New York City Department of Environmental Protection (DEP). Tests are ongoing but thus far, tests have shown asbestos levels that are below the threshold of concern. Nonetheless, workers who are involved in the recovery mission have been equipped with half-face masks and goggles, as well as protective clothing, to reduce exposure to any particulate matter including dust. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health effects are very low. A fact sheet detailing DOH recommendations can be found on the DOH website at nyc.gov/health.

The Health Department has produced a Public Health Advisory for residents and people returning to work in the nearby area. Residents and workers are advised to guard against dust and soot which can cause respiratory symptoms and eye and throat irritation. Residents in the immediate area are advised to keep windows closed and to avoid strenuous outdoor activity in the area affected. A fact sheet detailing DOH recommendations can be found on the DOH website at nyc.gov/health.

Medical Surveillance

The New York City Department of Health is monitoring several medical issues throughout the City.

- - More - -

***The Main Office of the NYC DOH has been temporarily relocated to 455 1st Avenue.**

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Staff are working on site in selected hospital emergency departments to assess event-related injury and illnesses which may occur subsequent to the World Trade Center disaster. To bolster the Department's efforts, Epidemic Intelligence Service (EIS) officers from the U.S. Centers For Disease Control and Prevention (CDC) are assisting in efforts to monitor diseases, conduct a medical and mental health needs assessment, identify health problems such as dust and allergic conditions, and to determine if there are any new medical needs. Testing done by the New York City Department of Health immediately after the blast showed no evidence of any biologic or chemical agents.

Handling of Corpses

While health risks associated with the handling of corpses by the rescue workers are low, the Department of Health has recommended the use of universal precautions when handling human remains. This includes wearing face shields, protective garments, and heavy duty rubber gloves to prevent exposure to blood or body fluids, with attention to sharp fragments of bone and debris that can pose a risk of percutaneous injury. The decomposing remains of human bodies poses no environmental health risk to the general public.

Water Quality

The Health Department and the Department of Environmental Protection are monitoring water quality in the area around ground zero. Test results of the area north of blast zone are within acceptable limits, but tests are ongoing.

Food

The Health Department has prioritized permitted food establishments below Canal Street for inspection so that they may be operational as soon as possible. Environmental investigators are working with restaurant owners and the operators of other permitted food establishments to ensure safety of the food served. Additionally, the Health Department is overseeing the distribution of food served to rescue workers at the blast zone.

Pest Control

The Health Department is currently conducting a survey of the blast zone and the surrounding areas in lower Manhattan to assess the impact of the blast on rodent activity. Working in concert with other city agencies including the Mayor's Office of Emergency Management and the Department of Sanitation, Health Department crews will mobilize inspectors, exterminators, and clean-up crews to abate conditions conducive to rodent harborage, as necessary.

For more information, please visit the Health Department's website (nyc.gov/health). Fact sheets and public health advisories will be posted soon to address:

- Coping with post-disaster grief and despair;
- Air quality in the affected area of the World Trade Center disaster;
- Re-occupation of evacuated residential areas.

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THE CITY OF NEW YORK DEPARTMENT OF HEALTH

Rudolph W. Giuliani
Mayor

Neal L. Cohen, M.D.
Commissioner

nyc.gov/health

Health & Safety Precautions for Rescue Workers

- ✓ Cover all body surfaces. This includes wearing:
 - Coveralls
 - Gloves
 - Goggles
 - Water-impermeable footwear
- ✓ Use respiratory protection and make sure someone checks the fit of the mask. A respirator that does not fit correctly provides no protection (* see footnote below).
 - Do not eat, drink, or smoke before properly removing respirator and gloves AND washing your hands.
- ✓ Avoid dehydration: Drink enough fluids so that you are urinating every 4 hours. Don't wait until you are thirsty.
- ✓ Follow decontamination instructions AND wash your hands before eating or smoking.
- ✓ Follow decontamination instructions AND wash your hands before (and after) using the toilet.
- ✓ Leave the site immediately and go to first aid station if you:
 - develop signs and symptoms of heat exhaustion or heat stroke:
if you feel cold and sweaty, are overheated, have an irregular or fast heart rate, are nauseous, or become confused
 - have chest pain
 - are short of breath or have difficulty breathing
 - become physically or emotionally exhausted
 - are bleeding or if someone bleeds on you
 - if blood, body fluids or tissues contact your eyes, mouth, nose, or any non-intact skin
 - and when you need to change clothing
- ✓ Before going home, remove contaminated clothing and wipe your footwear. **Don't bring your contamination home with you!**
- ✓ When you get home, remove clothes immediately and place in a plastic bag until washing. Launder twice--separately from other laundry. Wash off shoes and other items, then throw the sponge away in a plastic bag.

* Checking the fit requires, at a minimum, a negative pressure test and a positive pressure test. For a cartridge respirator, check the negative pressure by covering the cartridges fully with your bare hands. Suck air in using your lungs. You should feel a tight suction around the seal of the respirator. For a positive pressure test, cover the exhalation valve fully and blow out. You should feel the respirator puff out without air escaping from the seal. If either test fails, try adjusting the tightness of the strap or select a different size respirator.

Kris Rad Krushin

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from Tom Mathe
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DRAFT

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Public Health Advisory for People Re-Occupying Commercial Buildings and Residents Re-Entering their Homes: Recommendations for Protecting Your Health

What steps have building owners and managers taken to ensure building safety?

Before building owners and managers are permitted to allow residents and occupants to return, they have been required to assess and certify the stability and safety of their buildings. Specifically, no building may be re-occupied unless each of the following steps have been taken:

- 1) the structure has been thoroughly assessed for strength stability;
- 2) gas service has been checked and restored, with the help of Con Edison;
- 3) electrical service is operating, and any exposed wires or damaged fixtures have been repaired or removed;
- 4) building water service is operating, roof water tanks have been flushed and re-filled and cleaned, if necessary;
- 5) steam service has been checked and restored, where appropriate;
- 6) the building has been assessed for hazardous materials and if any have been found, they have been removed according to applicable regulations;
- 7) building mechanism systems have been inspected and cleaned and repaired, as necessary, including heating, ventilation and air conditioning systems;
- 8) the interior has been cleaned of dust and debris.

In addition, New York City is requiring building owners and managers to communicate with building occupants and be available to answer questions regarding building conditions. If you have questions about any of the above issues, you should contact your building owner, manager or superintendent.

What steps should I take upon returning to my workplace or home?

In a workplace, you should speak to your supervisors about how to prepare the workspace. It is possible that businesses have developed startup and cleaning procedures. In particularly dusty environments, it may be that cleaning needs to happen before equipment can be restarted. Follow the cleaning procedures discussed below:

In your home, you should check first make sure that conditions are safe. You should enter your home dressed in long sleeve shirts and pants, and with closed shoes. Upon entry:

- Check for the smell of gas. If the apartment smells of gas, leave immediately and report it to your building manager and to Con Edison.
- Check for broken glass and fixtures. Wrap any broken glass in paper and mark it "broken glass." If large pieces of glass are broken, ask your building superintendent for help.
- Run hot and cold water from each of the taps for at least two minutes, or until water runs completely clean, whichever is longer.
- Flush toilets until bowls are refilled. For air pressure systems, you may need to flush several times. If there are any problems with the toilet or plumbing system, call a plumber — do not try to fix the problem yourself.
- Follow the cleaning procedures discussed below.

I have heard that asbestos was released from the collapse of the World Trade Center.

What is asbestos, and should I worry about it being present in my home?

Asbestos, a naturally occurring mineral, was used in the construction of the World Trade Center. The destruction of the World Trade Center buildings released large amounts of dust and ash, some of which contained asbestos.

Exposure to inhaled asbestos primarily affects the lungs. The risk of lung disease from the inhalation of asbestos fibers depends on the intensity and duration of exposure. In general, lung disease has resulted from intense asbestos exposure experienced over a period of many years, primarily in occupational settings. The risk of developing an asbestos-related illness following an exposure of short duration is low.

City, State and Federal agencies have conducted dust samples and air samples since the World Trade Center collapse. Though most of the samples have no asbestos, some have found very small amounts of asbestos. These agencies have concluded that the dust is safe to treat as dirt, and does not need to be handled as a hazardous material. Even still, because the dust is very fine, the Department of Health is recommending that every effort be made to not let the dust get airborne.

*has
little
potential
to create
airborne
asbestos
fibers*

How should I clean my apartment when I move back in?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Where dust is thick, you can directly wet the dust with water, and remove it in layers with wet rags and mops. Dirty rags can be rinsed under running water, being careful to not leave dust in the sink to dry. When done, used rags and mops should be put in plastic bags while they are still wet and bags should be sealed and discarded (cloth rags can be washed, see instructions below). Rags should not be allowed to dry out before bagging and disposal or washing.

Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust and may put dust back into the air where it can be inhaled. HEPA (high efficiency particulate) efficiency filtration vacuums (i.e., HEPA vacuums) capable of trapping very fine particles are preferred. They are now widely available in stores and may be shared by more than one family. If a HEPA vacuum is not available, it is recommended that either HEPA bags or dust allergen bags be used with your regular vacuum.

Carpets and upholstery can be shampooed and then vacuumed.

If your apartment is very dusty, you should wash or HEPA vacuum your curtains. Be careful if taking them down to prevent dispersion of dust in the air.

To clean plants, rinse leaves with water. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home.

How can I remove dust from the air?

Air purifiers may help reduce indoor dust levels. HEPA air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Additional precautions include:

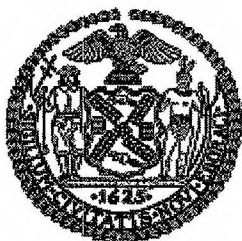
- Avoid sweeping or other outdoor maintenance;
- Keep dust from entering the home;
- Keep windows closed;
- Set the air conditioner to re-circulate air (closed vents), and clean or change the filter frequently;
- Remove shoes before entering the home for several days (once you first make sure there is no broken glass)

Do I need to wash all my clothes and linen?

Dusty clothes should be washed separately from other clothing. Wash heavily-soiled or dusty clothing or linens twice. Remove lint from washing machines and filters in the dryers with each laundry load.

What should I do with leftover food in my apartment?

The power outage in much of lower Manhattan may have caused refrigerated food to spoil. *Throw away* any food that is spoiled or may have been contaminated with dust, except for food in cans, jars, or containers with tight-fitting lids. Wash cans and jars with water and wipe it clean. *If in doubt, throw it out.*



New York City Department of Health Responds to the World Trade Center Disaster

INFORMATION FOR RESIDENTS OF LOWER MANHATTAN

As part of an ongoing effort to assess the impact of the World Trade Center (WTC) disaster, the New York City Department of Health (DOH) in collaboration with federal authorities conducted tests of air quality in 30 residential buildings in lower Manhattan.

A total of 117 air samples were taken in 30 buildings in lower Manhattan and analyzed for airborne fibers. Samples were taken inside residences, in common areas within residential buildings, and outside of the buildings. The tests examined samples of both air and dust. **The air samples from inside the buildings showed no elevated levels of asbestos.** The air sampling results for fibrous glass (fiberglass) are not yet available. The dust showed low levels of asbestos in some samples and the presence of fiberglass in other samples. The potential for exposure to these materials depends not only on their concentration in the dust but also on the amount of dust that is present. Asbestos and fiberglass can pose a health risk if dust accumulates and particles become airborne. While these findings are not unexpected, they underscore the importance of proper cleaning to reduce dust.

The analysis of 98 dust samples for asbestos taken from the inside and outside of residential buildings in lower Manhattan indicated that while 20% were above background levels, only two samples which were taken from outdoors required abatement. Professional abatement work was completed in these areas.

Samples taken from inside and outside of residential buildings in lower Manhattan were also analyzed for fibrous glass. Fibrous glass was detected in 43 of the 98 dust samples taken. The results of air sampling for fibrous glass, and for air and surface testing of other materials, are not yet available.

DOH is holding community meetings in association with Manhattan Community Board No. 1 to discuss the findings of this study and to address the concerns of lower Manhattan residents. **Meetings will be held next Tuesday and Wednesday, February 12th and 13th from 6:30 to 7:45 P.M. Tuesday's meeting will take place at the *Battery Park City Community Room*, 21 South End Avenue (behind Gristedes supermarket) in lower Manhattan; Wednesday's meeting will be held at *40 Worth Street* in lower Manhattan.** Any residents of lower Manhattan who would like to arrange additional meetings with DOH officials through their tenant or other community organizations should contact DOH at (212) 341-9810.

Because work continues at the WTC site, these findings reinforce the importance of following recommendations for cleaning in and around the home:

- **Clean frequently to reduce dust.**

DOH

- **Avoid carrying dust into your building from outdoors.** While work continues at the World Trade Center site, wet wipe/remove shoes and wet wipe pets' paws before re-entering your residence.
- **Prevent settled dust from being reintroduced into the air by ensuring proper dust cleanup:**
 1. Use a wet/damp cloth or wet/damp mop to clean surfaces.
 2. Use a high efficiency particulate air filter (HEPA) vacuum to clean dust from carpets, upholstery, and other materials that cannot be cleaned by wet wiping.
 3. Floors or surfaces with a light visible dust accumulation can be HEPA vacuumed first then wet wiped/mopped using the procedure stated above. This step can help reduce the amount of dust stirred up.
 4. *Do not sweep* with "dry" brooms, use dusters, or use vacuums without an approved HEPA filter.
 5. *Dispose of materials properly:* Place used items in plastic bags while wet (then dispose in trash. Wash water used for cleaning should be disposed of in the sink or toilet. Cloths and mops can be reused or disposed of after use. If reused, dirty mop heads and cleaning cloths should be washed separately from regular laundry. Wash mops and cloths after each use. Handling dry dirty cloths/mops can reintroduce dust in the air.
- **Protect yourself:** Because dust can accumulate on your hands during cleaning, and since fiberglass can be irritating to the skin, eyes, nose and throat, you can take steps to reduce potential irritant effects while cleaning by:
 1. Wearing rubber gloves or work gloves.
 2. Washing your hands after cleaning, before eating, drinking, smoking, and using the bathroom.
 3. Consider removing contact lenses prior to cleanup.
- **Outdoor surfaces** with small accumulations of dust may also be cleaned by HEPA vacuuming or wet wiping if the surface type allows. When cleaning outdoor areas such as terraces, be careful to prevent dust and other materials from falling to the sidewalk or properties below.
- **If you do not have a HEPA vacuum**, ask your building management company if they have a HEPA vacuum you can use. HEPA vacuums are available at most retail stores. The American Red Cross may be able to provide financial assistance to purchase a HEPA vacuum to residents who live below Canal Street. For further information call the American Red Cross at 1-877-746-4987.

Health Information about Asbestos and Fiberglass

Exposure to asbestos is associated with asbestosis (scarring of the lungs) and cancer. The risk of developing these diseases depends on the level (dose) and the length of time exposed (duration). The likelihood of developing disease from limited, short-term, low-level exposure is low. There is no reliable test that can indicate whether an individual has had low-level exposures to asbestos. In the occupational setting, where the duration and intensity of asbestos exposure can be much greater, there is a higher risk to workers. Workers at the WTC site need to use the correct protective equipment to reduce exposure.

Exposure to some forms of fibrous glass, like fiberglass, can cause cough, and eye, nose, skin, and throat irritation. Long-term health effects associated with fibrous glass are not completely known and standards for measurement of fiberglass in environmental samples are not well established. Although fiberglass is classified as a possible carcinogen, recent studies of more than 30,000 industrial workers who worked with fiberglass found no conclusive evidence of an increased risk of cancer.

For more information, visit the Health Department website at nyc.gov/health or call DOH at (212) 341-9810.

02/08/02

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PERSONAL SAFETY & HEALTH PROTECTION RECOMMENDATIONS FOR SEARCH AND RESCUE PERSONNEL

Personal Protective Equipment (PPE)

All personnel involved in Task should wear the following:

- Hard Hats
- Steel-toed/Heavy Duty Work Shoes
- Long Pants and Long Sleeve Work Shirts
- Safety Glasses/Eye Protection
- Respiratory Protection
 - ✓ Ground Zero: Respirators with HEPA filters
 - ✓ Other Areas: Dust Mask

Work Area Safety Concerns

- Watch surroundings at all times
- Be aware of materials and debris that may fall from damaged buildings
- Walking and working surfaces (slip/trip/fall hazards)
- Cap and secure unused pressurized cylinders
- As far as practical, try to keep the generation of dusts to a minimum
- Use the buddy system

Work Area Health Concerns

- When leaving work areas:
 - ✓ Dust off clothing
 - ✓ Clean or scrape shoes
 - ✓ Wash hands and face
 - ✓ Clean respirators and eye wear as frequently as possible
 - ✓ No consumption of foods that have not been covered or properly sealed (hygiene issues)

Heavy Equipment Operations

- Stand Clear of Operating Equipment and Vehicles
- Use tag lines when lifting loads
- Use spotter during lifting operation and for personnel safety in area (no lifting over personnel/equipment)
- All equipment operators wear proper PPE if leaving Equipment (see above)
- Be cautious of operating speeds in work areas and especially when leaving the area
 - ✓ Recommend speeds no faster than 10 mph until outside hazard areas

SEARCH & RESCUE PHASE SAFETY & HEALTH PROTECTION RECOMMENDATIONS

Work Zone Control

- Establish each rescue area (e.g., Tower 1; Tower 2; Building 4; Building 7; etc.) as a separate “Work Zone” with a defined chain of command for each Zone.
- Establish positive controls for entry and exit points into each “Work Zone” (for personnel and equipment).
 - ✓ *Limit access to personnel assigned to that Zone and prohibit personnel (as far as feasible) from walking or standing near damaged buildings (falling glass/debris hazard).*
 - ✓ *Color coding of each Work Zones*
- Establish uniformed personnel to control access into each Work Zone.
- Establish “rest areas” adjacent to but not in the Work Zones.

Dust Control

- To protect against inhalation of dust, use proper respiratory protection.
- To minimize release of additional dust, minimize handling of debris (manually as well as with heavy equipment) to the extent practical.
- Equipment and Personnel (clothing) control.
 - ✓ Personnel should not depart a Work Zone without being wiped-down with wet rag (control disposal of rags); soles of shoes need to be scraped or washed-off that are covered with dust or debris.
 - ✓ ALL equipment tires and underbelly must be hosed-off before departing a Work Zone (prevents further spread of dust/debris beyond Zones) and all trucks leaving site with debris should be covered.

Personal Hygiene and Protection

- Promote the use of hardhats, eye protection, respiratory protection, foot protection, and protective clothing
- Discourage (as much as possible) eating, drinking, smoking, and chewing in Work Zones (refer back to dust control).
- To protect Health Care Providers from further exposure to hazards, remove debris from area and install barrier to prevent debris/dust from re-entering area (e.g., use canopies, tents, etc.).
- Report any injury to your supervisor and receive treatment at the nearest triage station.

Heavy Equipment Operations

- Allow only necessary equipment in a Work Zone, and stage all others outside (in “safe areas”).
- Assign spotters for equipment operation safety, and to control personnel in the area; use tag lines and other standard Heavy Equipment Operations (no persons under suspended loads).
- Create clear traffic lanes for Heavy Equipment moving in and out, especially those moving debris.



PUBLIC HEALTH ADVISORY CONCERNING AIR QUALITY IN THE AFFECTED AREA OF THE WORLD TRADE CENTER DISASTER

The NYC Department of Health (DOH), in collaboration with the City, State, and Federal agencies, is closely monitoring and analyzing air quality data in the wake of the World Trade Center disaster. Following the collapse of the Twin Towers, significant quantities of smoke and dust have been released into the air. The plume of smoke contained dust, ash, soot, and other burning materials present at the site.

In general, dusts can cause respiratory symptoms and eye and throat irritation. Because dust will continue to remain in the air during the ensuing clean-up efforts following the World Trade Center disaster, residents in the vicinity of the World Trade Center are encouraged to take precautions when they return to their homes.

What are the Recommendations for Residents Living in Lower Manhattan?

All residents in the immediate vicinity of the World Trade Center - particularly those who live the area bounded by Warren Street to the North, Broadway to the East, the Hudson River to the West, and Exchange and Thames Streets to the South - should take the following precautions when they return to their homes:

- ! Avoid unnecessary outdoor strenuous activity;
- ! Avoid sweeping or other outdoor maintenance;
- ! Keep dust from entering the home (e.g., remove shoes before entering the home);
- ! Keep windows closed;
- ! Set the air conditioner to recirculate air (closed vents), and clean or change the filter frequently;

What should I do if I experience respiratory symptoms?

Dust and other particulate matter have the greatest impact on persons with underlying respiratory conditions. Such individuals may experience chest tightness, wheezing, and shortness of breath. Anyone who has difficulty breathing should consult their physicians, especially those with underlying respiratory conditions. People with asthma may need to increase their usual medical treatment with more frequent use of bronchodilators, and should consult their physicians if necessary.

If I experience any eye irritation what should I do?

Ocular saline solutions or tap water may be used to rinse eyes irritated by dust. All persons should avoid wearing contact lenses while in the affected area.

What are the health effects of asbestos?

Destruction of the World Trade Center buildings released large amounts of dust and ash, some of which contained trace amounts of asbestos. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health affects are very low. Residents who live near the affected area are not at risk of developing asbestos-related illness following the collapse of the World Trade Center buildings.

In general, asbestos-related lung disease general results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration is very low.

What measures are being taken to protect the rescue workers?

Rescue workers have been equipped with half-face masks, goggles, and protective clothing to reduce their exposure to dust and other particulate matter while working in the blast zone.

How can I clean up dusts in or near my home or office?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Dirty rags should be put in plastic bags while they are still wet and bags should be sealed and discarded (cloth rags can be washed, see instructions below). Rags should not be allowed to dry out before bagging and disposal or washing. Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust. High efficiency vacuums, which are now widely available in stores, should be used to remove dust. Carpets and upholstery can be shampooed, then vacuumed.

Persons should shower to rinse off any dust from hair and skin. Dusty clothes should be washed separately from other clothing. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home. To clean plants, rinse leaves with water. *Throw away* any food that may have been contaminated with dust. Food in cans, jars or containers with tight-fitting lids do not need to be discarded. However, if there is dust present on the exterior of vacuum-sealed food containers, just wash the can or jar with water and wipe it clean. **If in doubt, throw it out.**

Air purifiers may help reduce indoor dust levels. High efficiency air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Do pregnant women and young children need to take additional precautions?

No. Pregnant women and young children do not need to take additional precautions



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New York City Department of Health Response to the World Trade Center Disaster

Public Health Advisory Concerning Air Quality in the Affected Area of the World Trade Center Disaster

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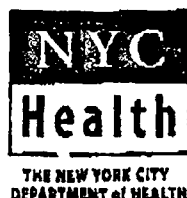
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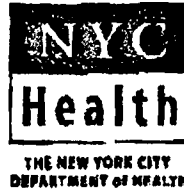
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Do pregnant women and young children need to take additional precautions?

No. Pregnant women and young children do not need to take additional precautions



RECOMMENDATIONS FOR PEOPLE RE-OCCUPYING COMMERCIAL BUILDINGS AND RESIDENTS RE-ENTERING THEIR HOMES

What steps have building owners and managers taken to ensure building safety?

Before building owners and managers allow residents and occupants to return, they have been required by New York City to assess and certify the stability and safety of their buildings. Specifically, no building may be re-occupied unless each of the following steps has been taken:

- 1) the structure has been thoroughly assessed for strength and stability;
- 2) gas service has been checked and restored, with the help of Con Edison;
- 3) electrical service is operating, and any exposed wires or damaged fixtures have been repaired or removed;
- 4) building water service is operating, roof water tanks have been flushed and re-filled and, if necessary, cleaned;
- 5) steam service has been checked and restored, where appropriate;
- 6) the building has been assessed for hazardous materials and if any have been found, they have been removed according to applicable regulations;
- 7) building mechanical systems have been inspected and cleaned and repaired, as necessary, including heating, ventilation and air conditioning systems;
- 8) the interior has been cleared of dust and debris.

In addition, New York City is requiring building owners and managers to communicate with building occupants and be available to answer questions regarding building conditions. If you have questions about any of the above issues, you should contact your building owner, manager, or superintendent.

What steps should I take upon returning to my workplace or home?

If you were evacuated from a residence or workplace south of Warren Street, west of Broadway, and north of Exchange Street, and have been approved to resume tenancy by your building manager, you are advised to wear a dust mask upon entering this area to decrease the possibility of dust inhalation and throat irritation. Outside these boundaries, masks are not necessary, but may be worn for your own comfort. If there is dust present indoors, it should not be necessary to wear this mask if you follow the cleaning procedures detailed below.

In a workplace, speak to your supervisor to see if there are special startup and cleaning procedure. In very dusty places, clean-up may be necessary before equipment can be restarted. Follow the cleaning procedures discussed below.

In your home, you should first make sure that conditions are safe. You should enter your home dressed in a long sleeve shirt and pants, and with closed shoes. Upon entry:

- Check for the smell of gas. If the apartment smells of gas, leave immediately and report it to your building manager and to Con Edison.
- Check for broken glass and fixtures. Wrap any broken glass in paper and mark it "broken glass." If large pieces of glass are broken, ask your building superintendent for instructions on disposal.
- Run hot and cold water from each of the taps for at least two minutes, or until water runs completely clean.
- Flush toilets until bowls are refilled. For air pressure systems, you may need to flush several times. If there are any problems with the toilet or plumbing system, call a plumber — do not try to fix the problem yourself.
- Follow the cleaning procedures discussed below.

I have heard that asbestos was released from the collapse of the World Trade Center. What are the health effects of asbestos?

Because some asbestos was used in the building of the World Trade Center, City, State, and Federal agencies have been collecting dust, debris, and air samples since the World Trade Center collapse. As expected, some asbestos was found in a few of the dust and debris samples taken from the blast site and individuals working in this area have been advised to take precautions. However, most of the air samples taken have been below levels of concern. Based on the asbestos test results received thus far, there are no significant health risks to occupants in the affected area or to the general public.

In general, asbestos-related lung disease results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration, even to high levels, is extremely low.

What should I do with food left in my apartment?

The power outage in much of lower Manhattan may have caused refrigerated and frozen food to spoil. Raw or cooked meat, poultry and seafood, milk and milk-containing products, eggs, mayonnaise and creamy dressings, and cooked foods should be thrown out if power was out for two or more hours. Frozen foods that have thawed should be thrown away. Do not re-freeze thawed food.

Throw away any food that may have been contaminated with dust, except for food in cans, jars, or containers with tight-fitting lids. Wash cans and jars with water and wipe it clean. When it comes to food left in your building, *if in doubt, throw it out.*

How should I clean the dust in my apartment when I move back in?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Where dust is thick, you can directly wet the dust with water, and remove it with wet rags and mops. Dirty rags can be rinsed under running water, being careful to not leave dust in the sink to dry. When done, used rags and mops should be put in plastic bags while they are still wet and bags should be sealed and discarded. Cloth rags should be washed separately from other laundry. Wash heavily soiled or dusty clothing or linens twice. Remove lint from washing machines and filters in the dryers with each laundry load. Rags should not be allowed to dry out before bagging and disposal or washing.

To reduce dust recirculation, the Health Department recommends using HEPA (high efficiency particulate air) filtration vacuums when cleaning up apartments, if possible. If a HEPA vacuum is not available, it is recommended that either HEPA bags or dust allergen bags be used with your regular vacuum. If these options are not available, wetting down the dust and removing it as described above is recommended.

Carpets and upholstery can be shampooed and then vacuumed.

- If your apartment is very dusty, you should wash or HEPA vacuum your curtains. If curtains need to be taken down, take them down slowly to keep dust from circulating in the air.
- To clean plants, rinse leaves with water. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home.

How can I remove dust from the air?

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Additional recommendations include:

- Keep outdoor dust from entering the home;
- Keep windows closed;
- Set the air conditioner to re-circulate air (closed vents), and clean or change the filter frequently;
- Remove shoes before entering the home for several days (once you first make sure there is no broken glass)
- Avoid sweeping or other outdoor maintenance.

For more information, call the Health Department's General Information Line at (212) 213 - 1844 or visit our website at nyc.gov/health.



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Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust and may put dust back into the air where it can be inhaled. HEPA (high efficiency particulate) efficiency filtration vacuums (i.e., HEPA vacuums) capable of trapping very fine particles are preferred. They are now widely available in stores and may be shared by more than one family. If a HEPA vacuum is not available, it is recommended that either HEPA bags or dust allergen bags be used with your regular vacuum.

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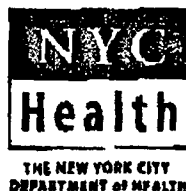
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In a workplace, speak to your supervisor to see if there are special startup and cleaning procedure. In very dusty places, clean-up may be necessary before equipment can be restarted. Follow the cleaning procedures discussed below.

In your home, you should first make sure that conditions are safe. You should enter your home dressed in a long sleeve shirt and pants, and with closed shoes. Upon entry:

- Check for the smell of gas. If the apartment smells of gas, leave immediately and report it to your building manager and to Con Edison.
- Check for broken glass and fixtures. Wrap any broken glass in paper and mark it "broken glass." If large pieces of glass are broken, ask your building superintendent for instructions on disposal.
- Run hot and cold water from each of the taps for at least two minutes, or until water runs completely clean.
- Flush toilets until bowls are refilled. For air pressure systems, you may need to flush several times. If there are any problems with the toilet or plumbing system, call a plumber -- do not try to fix the problem yourself.
- Follow the cleaning procedures discussed below.

I have heard that asbestos was released from the collapse of the World Trade Center. What are the health effects of asbestos?

Because some asbestos was used in the building of the World Trade Center, City, State, and Federal agencies have been collecting dust, debris, and air samples since the World Trade Center collapse. As expected, some asbestos was found in a few of the dust and debris samples taken from the blast site and individuals working in this area have been advised to take precautions. However, most of the air samples taken have been below levels of concern. Based on the asbestos test results received thus far, there are no significant health risks to occupants in the affected area or to the general public.

In general, asbestos-related lung disease results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration, even to high levels, is extremely low.

What should I do with food left in my apartment?

The power outage in much of lower Manhattan may have caused refrigerated and frozen food to spoil. Raw or cooked meat, poultry and seafood, milk and milk-containing products, eggs, mayonnaise and creamy dressings, and cooked foods should be thrown out if power was out for two or more hours. Frozen foods that have thawed should be thrown away. Do not re-freeze thawed food.

Throw away any food that may have been contaminated with dust, except for food in cans, jars, or containers with tight-fitting lids. Wash cans and jars with water and wipe it clean. When it comes to food left in your building, *if in doubt, throw it out.*

How should I clean the dust in my apartment when I move back in?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Where dust is thick, you can directly wet the dust with water, and remove it with wet rags and mops. Dirty rags can be rinsed under running water, being careful to not leave dust in the sink to dry. When done, used rags and mops should be put in plastic bags while they are still wet and bags should be sealed and discarded. Cloth rags should be washed separately from other laundry. Wash heavily soiled or dusty clothing or linens twice. Remove lint from washing machines and filters in the dryers with each laundry load. Rags should not be allowed to dry out before bagging and disposal or washing.

To reduce dust recirculation, the Health Department recommends using HEPA (high efficiency particulate air) filtration vacuums when cleaning up apartments, if possible. If a HEPA vacuum is not available, it is recommended that either HEPA bags or dust allergen bags be used with your regular vacuum. If these options are not available, wetting down the dust and removing it as described above is recommended.

Carpets and upholstery can be shampooed and then vacuumed.

- If your apartment is very dusty, you should wash or HEPA vacuum your curtains. If curtains need to be taken down, take them down slowly to keep dust from circulating in the air.
- To clean plants, rinse leaves with water. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home.

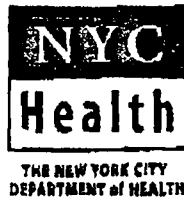
How can I remove dust from the air?

Air purifiers may help reduce indoor dust levels. HEPA air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Additional recommendations include:

- Keep outdoor dust from entering the home;
- Keep windows closed;
- Set the air conditioner to re-circulate air (closed vents), and clean or change the filter frequently;
- Remove shoes before entering the home for several days (once you first make sure there is no broken glass);
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The NYC Department of Health (DOH), in collaboration with the City, State, and Federal agencies, is closely monitoring and analyzing air quality data in the wake of the World Trade Center disaster. Following the collapse of the Twin Towers, significant quantities of smoke and dust have been released into the air. The plume of smoke contained dust, ash, soot, and other burning materials present at the site.

In general, dusts can cause respiratory symptoms and eye and throat irritation. Because dust will continue to remain in the air during the ensuing clean-up efforts following the World Trade Center disaster, residents in the vicinity of the World Trade Center are encouraged to take precautions when they return to their homes.

What are the Recommendations for Residents Living in Lower Manhattan?

All residents in the immediate vicinity of the World Trade Center - particularly those who live the area bounded by Warren Street to the North, Broadway to the East, the Hudson River to the West, and Exchange and Thames Streets to the South - should take the following precautions when they return to their homes:

- ! Avoid unnecessary outdoor strenuous activity;
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What should I do if I experience respiratory symptoms?

Dust and other particulate matter have the greatest impact on persons with underlying respiratory conditions. Such individuals may experience chest tightness, wheezing, and shortness of breath. Anyone who has difficulty breathing should consult their physicians, especially those with underlying respiratory conditions. People with asthma may need to increase their usual medical treatment with more frequent use of bronchodilators, and should consult their physicians if necessary.

If I experience any eye irritation what should I do?

Ocular saline solutions or tap water may be used to rinse eyes irritated by dust. All persons should avoid wearing contact lenses while in the affected area.

What are the health effects of asbestos?

Destruction of the World Trade Center buildings released large amounts of dust and ash, some of which contained trace amounts of asbestos. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health effects are very low. Residents who live near the affected area are not at risk of developing asbestos-related illness following the collapse of the World Trade Center buildings.

In general, asbestos-related lung disease generally results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration is very low.

What measures are being taken to protect the rescue workers?

Rescue workers have been equipped with half-face masks, goggles, and protective clothing to reduce their exposure to dust and other particulate matter while working in the blast zone.

How can I clean up dusts in or near my home or office?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Dirty rags should be put in plastic bags while they are still wet and bags should be sealed and discarded (cloth rags can be washed, see instructions below). Rags should not be allowed to dry out before bagging and disposal or washing. Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust. High efficiency vacuums, which are now widely available in stores, should be used to remove dust. Carpets and upholstery can be shampooed, then vacuumed.

Persons should shower to rinse off any dust from hair and skin. Dusty clothes should be washed separately from other clothing. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home. To clean plants, rinse leaves with water. *Throw away* any food that may have been contaminated with dust. Food in cans, jars or containers with tight-fitting lids do not need to be discarded. However, if there is dust present on the exterior of vacuum-sealed food containers, just wash the can or jar with water and wipe it clean. **If in doubt, throw it out.**

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Do pregnant women and young children need to take additional precautions?

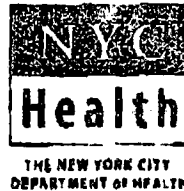
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UPDATE



RECOMMENDATIONS FOR PEOPLE RE-OCCUPYING COMMERCIAL BUILDINGS AND RESIDENTS RE-ENTERING THEIR HOMES

What steps have building owners and managers taken to ensure building safety?

Before building owners and managers allow residents and occupants to return, they have been required by New York City to assess and certify the stability and safety of their buildings. Specifically, no building may be re-occupied unless each of the following steps has been taken:

- 1) the structure has been thoroughly assessed for strength and stability;
- 2) gas service has been checked and restored, with the help of Con Edison;
- 3) electrical service is operating, and any exposed wires or damaged fixtures have been repaired or removed;
- 4) building water service is operating, roof water tanks have been flushed and refilled and, if necessary, cleaned;
- 5) steam service has been checked and restored, where appropriate;
- 6) building has been assessed for hazardous materials and if any have been found, they have been removed according to applicable regulations;
- 7) building mechanical systems have been inspected and cleaned and repaired, as necessary, including heating, ventilation and air conditioning systems;
- 8) the interior has been cleared of dust and debris.

In addition, New York City is requiring building owners and managers to communicate with building occupants and be available to answer questions regarding building conditions. If you have questions about any of the above issues, you should contact your building owner, manager, or superintendent.

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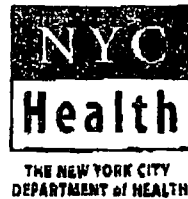
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Do pregnant women and young children need to take additional precautions?

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The New York City Department of Health



New York City Department of Health Responds to the World Trade Center Disaster

FACT SHEET FOR CLEANING HOMES NEAR THE WORLD TRADE CENTER

The collapse of the World Trade Center (WTC) caused a large amount of dust, soot, ash, and other building materials to enter into some homes in the surrounding area. Because work continues at the site, dust can still be a concern for some residents. Dust can irritate your eyes, nose and throat, and make it hard to breathe. Small amounts of asbestos may also be present in some of the dust in the downtown area. If you are cleaning up dusty areas, you can take steps to protect yourself and keep the dust from getting in the air. If the dust is beyond a minimal amount or beyond what you feel comfortable cleaning up on your own, seek professional cleaning companies to help.

HOW CAN I CLEAN UP DUST SAFELY?

- Proper dust cleanup will prevent dust from getting in the air again. The best way to remove dust from surfaces is to use a wet rag or wet mop (wet wiping). Sweeping the dust dry may cause it to get in the air you breathe.
- Use a high efficiency vacuum cleaner (HEPA) to clean dust from carpets, upholstery, and other materials that cannot be cleaned by wet wiping. A regular (standard) vacuum cleaner blows dust around the room. If you have already used a regular vacuum cleaner, wet wipe the area again and try to obtain a HEPA vacuum. If you do not have a HEPA vacuum, ask your building management company if they have a HEPA vacuum you can use.
- Some people report irritations from dust in the air when they clean. You can use a dust mask to protect yourself from breathing in dust while cleaning. This will reduce inhaling dust that can irritate your nose, throat and lungs.



- Practice good personal hygiene. Wash your hands before eating, drinking, and before smoking or using the bathroom.
- Dust from outdoors can be carried home on your shoes so remove them before going inside or wet wipe them.
- Put cleaning rags used for wet wiping in plastic bags while they are still wet. The rags should be washed separately from your other clothes. The rags can then be reused or thrown out in a sealed bag. Try not to let the rags dry out with dirt on them. If this happens, place the dry rags in sealed bags and dispose of them, being careful not to disperse dusts.

Regular, routine cleaning is important to keep dust levels low in downtown homes. More WTC-related information is available at the New York City Department of Health website at: nyc.gov/health.

12/14/01

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New York City Department of Health Continues to Respond to the World Trade Center Disaster

INFORMATION FOR RESIDENTS OF LOWER MANHATTAN

As part of an ongoing effort to assess the impact of the World Trade Center (WTC) disaster, the New York City Department of Health (DOH) in collaboration with federal authorities conducted tests of air quality in 30 residential buildings in lower Manhattan.

A total of 117 air samples were taken in 30 buildings in lower Manhattan and analyzed for airborne fibers. Samples were taken inside residences, in common areas within residential buildings, and outside of the buildings. The tests examined samples of both air and dust. **The air samples from inside the buildings showed no elevated levels of asbestos.** The air sampling results for fibrous glass (fiberglass) are not yet available. The dust showed low levels of asbestos in some samples and the presence of fiberglass in other samples. The potential for exposure to these materials depends not only on their concentration in the dust but also on the amount of dust that is present. Asbestos and fiberglass can pose a health risk if dust accumulates and particles become airborne. While these findings are not unexpected, they underscore the importance of proper cleaning to reduce dust.

The analysis of 98 dust samples for asbestos taken from the inside and outside of residential buildings in lower Manhattan indicated that while 20% were above background levels, only two samples which were taken from outdoors required abatement. Professional abatement work was completed in these areas.

Samples taken from inside and outside of residential buildings in lower Manhattan were also analyzed for fibrous glass. Fibrous glass was detected in 43 of the 98 dust samples taken. The results of air sampling for fibrous glass, and for air and surface testing of other materials, are not yet available.

DOH is holding community meetings in association with Manhattan Community Board No. 1 to discuss the findings of this study and to address the concerns of lower Manhattan residents. **Meetings will be held next Tuesday and Wednesday, February 12th and 13th from 6:30 to 7:45 P.M. Tuesday's meeting will take place at the *Battery Park City Community Room*, 21 South End Avenue (behind Gristedes supermarket) in lower Manhattan; Wednesday's meeting will be held at *40 Worth Street* in lower Manhattan.** Any residents of lower Manhattan who would like to arrange additional meetings with DOH officials through their tenant or other community organizations should contact DOH at (212) 341-9810.

Because work continues at the WTC site, these findings reinforce the importance of following recommendations for cleaning in and around the home:

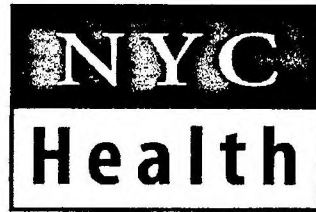
- **Clean frequently to reduce dust.**

- **Avoid carrying dust into your building from outdoors.** While work continues at the World Trade Center site, wet wipe/remove shoes and wet wipe pets' paws before re-entering your residence.
- **Prevent settled dust from being reintroduced into the air by ensuring proper dust cleanup:**
 1. Use a wet/damp cloth or wet/damp mop to clean surfaces.
 2. Use a high efficiency particulate air filter (HEPA) vacuum to clean dust from carpets, upholstery, and other materials that cannot be cleaned by wet wiping.
 3. Floors or surfaces with a light visible dust accumulation can be HEPA vacuumed first then wet wiped/mopped using the procedure stated above. This step can help reduce the amount of dust stirred up.
 4. *Do not* sweep with "dry" brooms, use dusters, or use vacuums without an approved HEPA filter.
 5. *Dispose of materials properly:* Place used items in plastic bags while wet (then dispose in trash. Wash water used for cleaning should be disposed of in the sink or toilet. Cloths and mops can be reused or disposed of after use. If reused, dirty mop heads and cleaning cloths should be washed separately from regular laundry. Wash mops and cloths after each use. Handling dry dirty cloths/mops can reintroduce dust in the air.
- **Protect yourself:** Because dust can accumulate on your hands during cleaning, and since fiberglass can be irritating to the skin, eyes, nose and throat, you can take steps to reduce potential irritant effects while cleaning by:
 1. Wearing rubber gloves or work gloves.
 2. Washing your hands after cleaning, before eating, drinking, smoking, and using the bathroom.
 3. Consider removing contact lenses prior to cleanup.
- **Outdoor surfaces** with small accumulations of dust may also be cleaned by HEPA vacuuming or wet wiping if the surface type allows. When cleaning outdoor areas such as terraces, be careful to prevent dust and other materials from falling to the sidewalk or properties below.
- **If you do not have a HEPA vacuum,** ask your building management company if they have a HEPA vacuum you can use. HEPA vacuums are available at most retail stores. The American Red Cross may be able to provide financial assistance to purchase a HEPA vacuum to residents who live below Canal Street. For further information call the American Red Cross at 1-877-746-4987.

Health Information about Asbestos and Fiberglass

Exposure to asbestos is associated with asbestosis (scarring of the lungs) and cancer. The risk of developing these diseases depends on the level (dose) and the length of time exposed (duration). The likelihood of developing disease from limited, short-term, low-level exposure is low. There is no reliable test that can indicate whether an individual has had low-level exposures to asbestos. In the occupational setting, where the duration and intensity of asbestos exposure can be much greater, there is a higher risk to workers. Workers at the WTC site need to use the correct protective equipment to reduce exposure.

Exposure to some forms of fibrous glass, like fiberglass, can cause cough, and eye, nose, skin, and throat irritation. Long-term health effects associated with fibrous glass are not completely known and standards for measurement of fiberglass in environmental samples are not well established. Although fiberglass is classified as a possible carcinogen, recent studies of more than 30,000 industrial workers who worked with fiberglass found no conclusive evidence of an increased risk of cancer.



**THE NEW YORK CITY
DEPARTMENT of HEALTH**
(Based on Information Provided By the Automobile Association of America)

Information For Motorists Cars Exposed to Dust and Debris

Motorists living near the World Trade Center disaster site will face some challenges getting their cars going after being subjected to the extreme levels of dust, dirt and soot in the area. The following tips are suggested:

1. Before starting the vehicle try to clean it as thoroughly as possible. Using a hose or repeated uses of a bucket, douse the vehicle with water to remove as much standing dirt as possible. **Do not** use a rag, brush or any scrubbing action. These will grind the abrasive dirt into the paint, ruining it. Only the physical action of the moving water should be used to remove heavy dirt. Then use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.
2. Inspect the vehicle's interior for heavy dust and dirt. If it was badly exposed, before starting the vehicle, vacuum the interior thoroughly (the use of vacuum cleaners with High Efficiency Particulate Air, or HEPA, filters is strongly recommended), paying extra attention to the dashboard and vents, particularly if the vehicle is a '98 or newer model. New cars have lots of computer and electronic devices for controlling various functions located behind the dash that could be damaged by heavy dust.
3. Inspect the engine compartment under the hood of the vehicle. If it is very dusty, HEPA vacuum this area as well, paying close attention to the air intake, which can usually be identified as a bellows type of hose. If possible, disconnect the hose and vacuum it.
4. If the vehicle received extremely heavy exposure, after vacuuming you should change the air filter taking care not to dislodge any remaining dirt so that the engine might be contaminated. Inspect hoses, belts and pulleys for dirt and try to clean them as much as possible. In addition, open vehicle doors and turn on ventilation system. Leave vehicle and let run for 15 minutes to clean any dust or debris that may have entered system. Clean any dust or debris that may have been blown out.
5. Check the oil and coolant level before starting the engine. Also make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which could be low since the vehicle has not run for some time.
6. Check tire pressure and add air if necessary, according to the vehicle manufacturer's specifications.
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8. Drive the vehicle slowly at first to make sure it's operating correctly. If so, take the vehicle on a highway so the force of the air can help flush dust and dirt from under the hood and other areas. Only then should the ventilation system be used, first in the recirculation mode to prevent underhood dust from entering the passenger compartment. After five or ten minutes, switch the ventilation system to bring in outside air.
9. As soon as possible, change the oil and oil filter. Any dust or dirt that may have entered the engine will settle in the oil, which must be removed to prevent internal engine damage.

NYC Dept. of Health/AAA
September 30, 2001

Avaltroni, Robert

From: Chapin, Diana (ex)
Sent: Tuesday, October 02, 2001 3:44 PM
To: Avaltroni, Robert; Gilsenan, Michael
Subject: FW: Draft Car Interior Protocols

If the version we handed out at Senior Staff is no longer current, please see revised version is sent out to Senior Staff.

-----Original Message-----

From: DEP [mailto:DEP@OEM.NYC.GOV]
Sent: Tuesday, October 02, 2001 2:01 PM
To: 'nycdephazmat@hotmail.com'
Cc: 'Dianac@dep.nyc.gov'; Ryan, Geoffrey; 'michaelgi@dep.nyc.gov'
Subject: FW: Draft Car Interior Protocols

FYI

> -----Original Message-----

> From: DOH
> Sent: Tuesday, October 02, 2001 8:24 AM
> To: DEP
> Subject: RE: Draft Car Interior Protocols

> The protocols have been revised based on your comments. The final version
> is attached. <<DOH Car Interior protocols.doc>>

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Kelly R. McKinney PE
Associate Commissioner
OEM Emergency Operations Center, Pier 92
New York, New York 10019
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(917)731-5593 cell
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email: doheocdesk@yahoo.com <mailto:doheocdesk@yahoo.com>



DOH Car Interior
protocols.doc

> << File: Draft car interior protocols.d protocols.doc oc >>
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**THE NEW YORK CITY
DEPARTMENT of HEALTH**
(Based on Information Provided By the Automobile Association of America)

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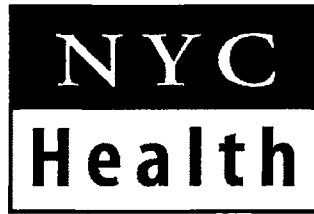
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NYC Dept. of Health/AAA
September 30, 2001

maldonado, jane (ex)

From: Avaltroni, Robert
Sent: Wednesday, October 03, 2001 6:15 AM
To: Maldonado, Jane
Subject: FW: Draft Car Interior Protocols

From: Chapin, Diana (ex)
Sent: Tuesday, October 02, 2001 3:44 PM
To: Avaltroni, Robert; Gilsenan, Michael
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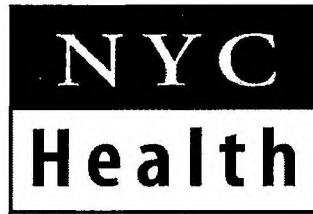
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NYC Dept. of Health/AAA
September 30, 2001



PUBLIC HEALTH ADVISORY CONCERNING AIR QUALITY IN THE AFFECTED AREA OF THE WORLD TRADE CENTER DISASTER

The NYC Department of Health (DOH), in collaboration with the City, State, and Federal agencies, is closely monitoring and analyzing air quality data in the wake of the World Trade Center disaster. Following the collapse of the Twin Towers, significant quantities of smoke and dust have been released into the air. The plume of smoke contained dust, ash, soot, and other burning materials present at the site.

In general, dusts can cause respiratory symptoms and eye and throat irritation. Because dust will continue to remain in the air during the ensuing clean-up efforts following the World Trade Center disaster, residents in the vicinity of the World Trade Center are encouraged to take precautions when they return to their homes.

What are the Recommendations for Residents Living in Lower Manhattan?

All residents in the immediate vicinity of the World Trade Center - particularly those who live the area bounded by Warren Street to the North, Broadway to the East, the Hudson River to the West, and Exchange and Thames Streets to the South - should take the following precautions when they return to their homes:

- ! Avoid unnecessary outdoor strenuous activity;
- ! Avoid sweeping or other outdoor maintenance;
- ! Keep dust from entering the home (e.g., remove shoes before entering the home);
- ! Keep windows closed;
- ! Set the air conditioner to recirculate air (closed vents), and clean or change the filter frequently;

What should I do if I experience respiratory symptoms?

Dust and other particulate matter have the greatest impact on persons with underlying respiratory conditions. Such individuals may experience chest tightness, wheezing, and shortness of breath. Anyone who has difficulty breathing should consult their physicians, especially those with underlying respiratory conditions. People with asthma may need to increase their usual medical treatment with more frequent use of bronchodilators, and should consult their physicians if necessary.

If I experience any eye irritation what should I do?

Ocular saline solutions or tap water may be used to rinse eyes irritated by dust. All persons should avoid wearing contact lenses while in the affected area.

What are the health effects of asbestos?

Destruction of the World Trade Center buildings released large amounts of dust and ash, some of which contained trace amounts of asbestos. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health affects are very low. Residents who live near the affected area are not at risk of developing asbestos-related illness following the collapse of the World Trade Center buildings.

In general, asbestos-related lung disease general results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration is very low.

What measures are being taken to protect the rescue workers?

Rescue workers have been equipped with half-face masks, goggles, and protective clothing to reduce their exposure to dust and other particulate matter while working in the blast zone.

How can I clean up dusts in or near my home or office?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Dirty rags should be put in plastic bags while they are still wet and bags should be sealed and discarded (cloth rags can be washed, see instructions below). Rags should not be allowed to dry out before bagging and disposal or washing. Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust. High efficiency vacuums, which are now widely available in stores, should be used to remove dust. Carpets and upholstery can be shampooed, then vacuumed.

Persons should shower to rinse off any dust from hair and skin. Dusty clothes should be washed separately from other clothing. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home. To clean plants, rinse leaves with water. *Throw away* any food that may have been contaminated with dust. Food in cans, jars or containers with tight-fitting lids do not need to be discarded. However, if there is dust present on the exterior of vacuum-sealed food containers, just wash the can or jar with water and wipe it clean. **If in doubt, throw it out.**

Air purifiers may help reduce indoor dust levels. High efficiency air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Do pregnant women and young children need to take additional precautions?

No. Pregnant women and young children do not need to take additional precautions



New York City Department of Health Response to the World Trade Center Disaster

Recommendations for Motorists in the Area Affected by the World Trade Center Disaster.

This Useful Information was Provided to the New York City Department of Health by the American Automobile Association

Motorists living near the World Trade Center disaster site will face some challenges getting their cars going after being subjected to the extreme levels of dust, dirt and soot in the area. The following tips are suggested:

- Before starting the vehicle try to clean it as thoroughly as possible. Using a hose or repeated uses of a bucket, douse the vehicle with water to remove as much standing dirt as possible. Do not use a rag, brush or any scrubbing action. These will grind the abrasive dirt into the paint, ruining it. Only the physical action of the moving water should be used to remove heavy dirt. Then use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.
- Inspect the vehicle's interior for heavy dust and dirt. If it was badly exposed, before starting the vehicle, vacuum the interior thoroughly, paying extra attention to the dashboard and vents, particularly if the vehicle is a '98 or newer model. New cars have lots of computer and electronic devices for controlling various functions located behind the dash that could be damaged by heavy dust. (For this reason owners of newer vehicles should not smoke in their cars.)
- Inspect the engine compartment under the hood of the vehicle. If it is very dusty, vacuum this area as well, paying close attention to the air intake, which can usually be identified as a bellows type of hose. If possible, disconnect the hose and vacuum it.
- If the vehicle received extremely heavy exposure, after vacuuming you should change the air filter taking care not to dislodge any remaining dirt so that the engine might be contaminated. Inspect hoses, belts and pulleys for dirt and try to clean them as much as possible.
- Check the oil and coolant level before starting the engine. Also make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which could be low since the vehicle has not run for some time.
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tailpipe to see if any strange looking vapors or material spew out. The engine may have ingested some dirt that will be discharged when first started. If strange noises are heard or smoke seen, shut the vehicle off and call a professional mechanic to inspect it.

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NYC 9/11 Public Portal Document



New York City Department of Health Responds to the World Trade Center Disaster

Recommendations for Motorists in the Area Affected by the World Trade Center Disaster.

Motorists living near the World Trade Center disaster site may face some challenges getting their cars cleaned and started if they were exposed to heavy levels of dust and soot from the collapse of the Twin Towers. Motorists are advised to clean the car's interior and exterior, as well as clean and inspect the engine, before starting their cars.

My car appears structurally damaged. What should I do?

If your car was parked near the World Trade Center on September 11 and it was structurally damaged, contact your insurance company. You should have your car towed from the area, inspected, and if necessary, repaired by a licensed mechanic.

My car is not structurally damaged. How should I clean the exterior of my car if it is covered with dust?

Make sure that the windows and doors are closed. Wet down the exterior of the car with a hose or repeated uses of a bucket; douse the vehicle with water to remove as much dust as possible.

Do not use a rag, brush or any scrubbing action. This will grind the abrasive dust into the paint, and possibly ruin it. Only the physical action of the moving water should be used to remove dust. Next, use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.

How can I protect myself from exposure to dust while cleaning the interior of my car?

If there are high levels of dust inside the car, wear a dust mask, preferably one that is double-banded. Make sure to use clean-up techniques that do not generate dust, such as wetting down the dust with water or using a HEPA (high efficiency particle air) vacuum, which will reduce dust recirculation.

How do I clean the interior of my car?

First, vacuum the interior of the car with a HEPA vacuum. If a HEPA vacuum is not available, a conventional or shop vacuum can be used, preferably with a HEPA or allergy bag. A conventional or shop vacuum should not be used in a garage or closed area without adequate ventilation.

After vacuuming, wipe the interior of the car with soap and water using disposable rags or sponges. Pay extra attention to the dashboard and vents, particularly if the vehicle is a 1998 model or newer. New cars have many computer and electronic devices located behind the dashboard that could be damaged by heavy dust. Place wet rags or sponges in plastic bags and dispose of while still wet.

Should I inspect the engine before starting the car?

Yes. Inspect the engine compartment under the hood of the vehicle. If it is very dusty, wear a dust mask and use a HEPA vacuum or a conventional vacuum with a HEPA or allergy bag. Pay close attention to the air intake, which can usually be identified by its bellows-like hose. If possible, disconnect the hose and vacuum it.

If the vehicle is particularly dusty, you should change the air filter after vacuuming, taking care not to dislodge any remaining dirt that may contaminate the engine. Inspect hoses, belts and pulleys for dirt and try to clean them as thoroughly as possible.

Lastly, check the oil and coolant level before starting the engine. Make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which may be low if the vehicle has not run for some time.

Should I check the tire pressure?

Yes. Check tire pressure and add air, if necessary, according to the vehicle manufacturer's specifications.

What do I do when starting the engine for the first time?

Only after thoroughly cleaning the car's exterior, interior, and engine should motorists start their cars.

When starting the vehicle, do not race the engine. Let it idle approximately five minutes. Observe the tailpipe to see if any strange-looking vapors or materials spew out. The engine may have ingested some dirt that will be discharged when it is first started. If strange noises are heard or smoke is seen, shut the vehicle off and call a professional mechanic to inspect it.

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As soon as possible, change the oil and oil filter. Any dust or dirt that may have entered the engine will settle in the oil, which should be removed to prevent internal engine damage.

How do I clean my vacuum equipped with a disposable dust bag?

Replace the vacuum dust bag, and place the old dust bag in a plastic bag and seal. Afterwards, dispose of the dust bags with your regular garbage.

Wipe the vacuum's exterior, including hose and other exposed parts, with a damp cloth. While still wet, place the damp cloth in a plastic bag, seal and discard with your regular garbage.

How do I clean my vacuum that is not equipped with a disposable dust bag?

Go outside and carefully empty the dust out of the vacuum dust container into a plastic garbage bag and seal. Discard the garbage bag with your regular garbage.

Wipe the vacuum's exterior, including hose and other exposed parts, with a damp cloth. While still wet, place the cloth in a plastic bag, seal and discard with your regular garbage.

Replace the prefilters on a HEPA vacuum. Check your HEPA cartridge to determine if it needs to be replaced.

What do I do with my dirty clothing and dust mask?

Place dust mask in plastic bag, seal and discard with your regular garbage. Make sure to wash dirty clothes separately from other laundry.

*The above information is provided by the New York City Department of Health
and the Automobile Club of New York*

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|| Contact Us || Search**

To: Residents and Building Owners of Lower Manhattan

From: Neil Cohen, Commissioner New York City Department of Health
New York Department of Environmental Protection
New York City Department of Housing Preservation
and Development

Subject: Building Related Concerns Associated with the Events of September 11, 2001

Date: December 15, 2001

Given the unusual circumstances surrounding the events of September 11, 2001, the above city agencies are writing you to provide direction and information relating to buildings and cleaning issues in lower Manhattan. We are coordinating our responses in an effort to clarify the responsibilities of city agencies, tenants, and building owners.

Building Owners

In September, both the New York City Department of Environmental Protection (DEP) and the Department of Health (DOH) advised building owners regarding building maintenance and re-occupancy issues. The steps to be taken prior to re-occupying buildings included the cleaning of air circulation systems and water tanks as well as assessing building contamination for possible hazardous components, including asbestos. Building owners are responsible for the cleaning of building exteriors, grounds, and common indoor areas as well as the provision of general building services (e.g. heat, water, electric, gas, etc.)

The DEP has determined that minimal dust accumulations (light coatings) can be cleaned using wet methods and/or vacuums equipped with high efficiency particulate air (HEPA) purifying filters. Large accumulations of debris (inside or outside) will require assessment for possible asbestos content by a licensed asbestos professional prior to cleanup. The DEP website provides detailed information concerning the steps required when asbestos containing material is suspected and/or present. The DOH website also contains detailed information on cleaning methods for accumulations of dust.

The Department of Housing Preservation and Development (HPD) will respond to general building service concerns.

Tenants

Many aspects of the general advisements issued in September also apply to tenants. Tenants are responsible for cleaning their own interior living spaces, including terraces, once any general and common building concerns which may interfere with interior living space cleanup have been addressed by the owner. The DOH guidelines referred to above will provide additional information regarding cleaning. In the event that you do not have access to HEPA vacuums for

cleaning, the use of wet cleaning methods alone will also be effective in removing accumulations of dust. Frequent cleaning may be necessary to control accumulations of dust. The use of personal HEPA air cleaning devices in the living area may be effective in reducing the amount of particulate circulating in the air. A HEPA air cleaning device which also contains charcoal or carbon filters may be effective in the partial removal of minor, nuisance level odors.

Tenants and building owners should discuss the satisfactory resolution of building related and cleaning concerns. Building owners should provide residents with information concerning the steps that have been taken to ensure that the appropriate actions have been performed. City agencies will respond to any additional or continuing concerns or questions you may have, however, the minimum actions outlined here are essential for the safe re-occupancy of buildings in the lower Manhattan area.

For further information, please refer to the agency websites or telephone contacts listed below.

For World Trade Center Health Concerns:

New York City Department of Health

www.nyc.gov/health

(212) 213-1844

For Asbestos, Noise, and Environmental Concerns:

New York City Department of Environmental Protection

www.nyc.gov/dep

(718) DEP-HELP

For General Building Service Concerns:

New York City Department of Housing Preservation and Development

www.nyc.gov/hpd

(212) 824-4328



FYI
m.
6:15 am

New York City Department of Health
 DEPARTMENT OF
 ENVIRONMENTAL HYGIENE
 1ST DEP. COMMISSIONER'S OFF.
Response to the World Trade Center Disaster

2001 SEP 31 PM 1:31

RECEIVED

Recommendations for Motorists in the Area Affected by the World Trade Center Disaster.

This Useful Information was Provided to the New York City Department of Health by the American Automobile Association

Motorists living near the World Trade Center disaster site will face some challenges getting their cars going after being subjected to the extreme levels of dust, dirt and soot in the area. The following tips are suggested:

- Before starting the vehicle try to clean it as thoroughly as possible. Using a hose or repeated uses of a bucket, douse the vehicle with water to remove as much standing dirt as possible. Do not use a rag, brush or any scrubbing action. These will grind the abrasive dirt into the paint, ruining it. Only the physical action of the moving water should be used to remove heavy dirt. Then use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.
- Inspect the vehicle's interior for heavy dust and dirt. If it was badly exposed, before starting the vehicle, vacuum the interior thoroughly, paying extra attention to the dashboard and vents, particularly if the vehicle is a '98 or newer model. New cars have lots of computer and electronic devices for controlling various functions located behind the dash that could be damaged by heavy dust. (For this reason owners of newer vehicles should not smoke in their cars.)
- Inspect the engine compartment under the hood of the vehicle. If it is very dusty, vacuum this area as well, paying close attention to the air intake, which can usually be identified as a bellows type of hose. If possible, disconnect the hose and vacuum it.
- If the vehicle received extremely heavy exposure, after vacuuming you should change the air filter taking care not to dislodge any remaining dirt so that the engine might be contaminated. Inspect hoses, belts and pulleys for dirt and try to clean them as much as possible.
- Check the oil and coolant level before starting the engine. Also make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which could be low since the vehicle has not run for some time.
- Check tire pressure and add air if necessary, according to the vehicle manufacturer's specifications.
- When starting the vehicle, do not race the engine. Let it idle about five minutes. Observe the

tailpipe to see if any strange looking vapors or material spew out. The engine may have ingested some dirt that will be discharged when first started. If strange noises are heard or smoke seen, shut the vehicle off and call a professional mechanic to inspect it.

- Drive the vehicle slowly at first to make sure it's operating correctly. If so, take the vehicle on a highway so the force of the air can help flush dust and dirt from under the hood and other areas. Only then should the ventilation system be used, first in the recirculation mode to prevent underhood dust from entering the passenger compartment. After five or ten minutes, switch the ventilation system to bring in outside air.
- As soon as possible, change the oil and oil filter. Any dust or dirt that may have entered the engine will settle in the oil, which must be removed to prevent internal engine damage.

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New York City Department of Health Response to the World Trade Center Disaster

Public Health Advisory Concerning Air Quality in the Affected Area of the World Trade Center Disaster

The NYC Department of Health (DOH), in collaboration with the City, State, and Federal agencies, is closely monitoring and analyzing air quality data in the wake of the World Trade Center disaster. Following the collapse of the Twin Towers, significant quantities of smoke and dust have been released into the air. The plume of smoke contained dust, ash, soot, and other burning materials present at the site.

In general, dusts can cause respiratory symptoms and eye and throat irritation. Because dust will continue to remain in the air during the ensuing clean-up efforts following the World Trade Center disaster, residents in the vicinity of the World Trade Center are encouraged to take precautions when they return to their homes.

What are the Recommendations for Residents Living in Lower Manhattan?

All residents in the immediate vicinity of the World Trade Center - particularly those who live the area bounded by Warren Street to the North, Broadway to the East, the Hudson River to the West, and Exchange and Thames Streets to the South - should take the following precautions when they return to their homes:

- Avoid unnecessary outdoor strenuous activity;
- Avoid sweeping or other outdoor maintenance;
- Keep dust from entering the home (e.g., remove shoes before entering the home);
- Keep windows closed;
- Set the air conditioner to recirculate air (closed vents), and clean or change the filter frequently;

What should I do if I experience respiratory symptoms?

Dust and other particulate matter have the greatest impact on persons with underlying respiratory conditions. Such individuals may experience chest tightness, wheezing, and shortness of breath. Anyone who has difficulty breathing should consult their physicians, especially those with underlying respiratory conditions. People with asthma may need to increase their usual medical treatment with more frequent use of bronchodilators, and should consult their physicians if necessary.

If I experience any eye irritation what should I do?

Ocular saline solutions or tap water may be used to rinse eyes irritated by dust. All persons should avoid wearing contact lenses while in the affected area.

What are the health effects of asbestos?

Destruction of the World Trade Center buildings released large amounts of dust and ash, some of which

contained trace amounts of asbestos. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health affects are very low. Residents who live near the affected area are not at risk of developing asbestos-related illness following the collapse of the World Trade Center buildings.

In general, asbestos-related lung disease general results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration is very low.

What measures are being taken to protect the rescue workers?

Rescue workers have been equipped with half-face masks, goggles, and protective clothing to reduce their exposure to dust and other particulate matter while working in the blast zone.

How can I clean up dusts in or near my home or office?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Dirty rags should be put in plastic bags while they are still wet and bags should be sealed and discarded (cloth rags can be washed, see instructions below). Rags should not be allowed to dry out before bagging and disposal or washing. Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust. High efficiency vacuums, which are now widely available in stores, should be used to remove dust. Carpets and upholstery can be shampooed, then vacuumed.

Persons should shower to rinse off any dust from hair and skin. Dusty clothes should be washed separately from other clothing. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home. To clean plants, rinse leaves with water. Throw away any food that may have been contaminated with dust. Food in cans, jars or containers with tight-fitting lids do not need to be discarded. However, if there is dust present on the exterior of vacuum-sealed food containers, just wash the can or jar with water and wipe it clean. **If in doubt, throw it out.**

Air purifiers may help reduce indoor dust levels. High efficiency air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Do pregnant women and young children need to take additional precautions?

No. Pregnant women and young children do not need to take additional precautions.

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New York City Department of Health Response to the World Trade Center Disaster

Recommendations for People Re-Occupying Commercial Buildings and Residents Re-Entering Their Homes

What steps should I take upon returning to my workplace or home?

If you were evacuated from a residence or workplace south of Warren Street, west of Broadway, and north of Exchange Street, and have been approved to resume tenancy by your building manager, you are advised to wear a dust mask upon entering this area to decrease the possibility of dust inhalation and throat irritation. Outside these boundaries, masks are not necessary, but may be worn for your own comfort. If there is dust present indoors, it should not be necessary to wear this mask if you follow the cleaning procedures detailed below.

In a workplace, speak to your supervisor to see if there are special startup and cleaning procedure. In very dusty places, clean-up may be necessary before equipment can be restarted. Follow the cleaning procedures discussed below.

In your home, you should first make sure that conditions are safe. You should enter your home dressed in a long sleeve shirt and pants, and with closed shoes. Upon entry:

- Check for the smell of gas. If the apartment smells of gas, leave immediately and report it to your building manager and to Con Edison.
- Check for broken glass and fixtures. Wrap any broken glass in paper and mark it "broken glass." If large pieces of glass are broken, ask your building superintendent for instructions on disposal.
- Run hot and cold water from each of the taps for at least two minutes, or until water runs completely clean.
- Flush toilets until bowls are refilled. For air pressure systems, you may need to flush several times. If there are any problems with the toilet or plumbing system, call a plumber -- do not try to fix the problem yourself.
- Follow the cleaning procedures discussed below.

I have heard that asbestos was released from the collapse of the World Trade Center. What are the health effects of asbestos?

Because some asbestos was used in the building of the World Trade Center, City, State, and Federal agencies have been collecting dust, debris, and air samples since the World Trade Center collapse. As expected, some asbestos was found in a few of the dust and debris samples taken from the blast site and individuals working in this area have been advised to take precautions. However, most of the air samples taken have been below levels of concern. Based on the asbestos test results received thus far, there are no significant health risks to occupants in the affected area or to the general public.

In general, asbestos-related lung disease results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration, even to high levels, is extremely low.

What should I do with food left in my apartment?

The power outage in much of lower Manhattan may have caused refrigerated and frozen food to spoil. Raw or cooked meat, poultry and seafood, milk and milk-containing products, eggs, mayonnaise and creamy dressings, and cooked foods should be thrown out if power was out for two or more hours. Frozen foods that have thawed should be thrown away. Do not re-freeze thawed food.

Throw away any food that may have been contaminated with dust, except for food in cans, jars, or containers with tight-fitting lids. Wash cans and jars with water and wipe it clean. When it comes to food left in your building, if in doubt, throw it out.

How should I clean the dust in my apartment when I move back in?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Where dust is thick, you can directly wet the dust with water, and remove it with wet rags and mops. Dirty rags can be rinsed under running water, being careful to not leave dust in the sink to dry. When done, used rags and mops should be put in plastic bags while they are still wet and bags should be sealed and discarded. Cloth rags should be washed separately from other laundry. Wash heavily soiled or dusty clothing or linens twice. Remove lint from washing machines and filters in the dryers with each laundry load. Rags should not be allowed to dry out before bagging and disposal or washing.

To reduce dust recirculation, the Health Department recommends using HEPA (high efficiency particulate air) filtration vacuums when cleaning up apartments, if possible. If a HEPA vacuum is not available, it is recommended that either HEPA bags or dust allergen bags be used with your regular vacuum. If these options are not available, wetting down the dust and removing it as described above is recommended.

Carpets and upholstery can be shampooed and then vacuumed.

- If your apartment is very dusty, you should wash or HEPA vacuum your curtains. If curtains need to be taken down, take them down slowly to keep dust from circulating in the air.
- To clean plants, rinse leaves with water. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home.

How can I remove dust from the air?

Air purifiers may help reduce indoor dust levels. HEPA air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Additional recommendations include:

- Keep outdoor dust from entering the home;
- Keep windows closed;
- Set the air conditioner to re-circulate air (closed vents), and clean or change the filter frequently;
- Remove shoes before entering the home for several days (once you first make sure there is no broken glass)



New York City Department of Health Response to the World Trade Center Disaster

Recommendations for Motorists in the Area Affected by the World Trade Center Disaster.

This Useful Information was Provided to the New York City Department of Health by the American Automobile Association

Motorists living near the World Trade Center disaster site will face some challenges getting their cars going after being subjected to the extreme levels of dust, dirt and soot in the area. The following tips are suggested:

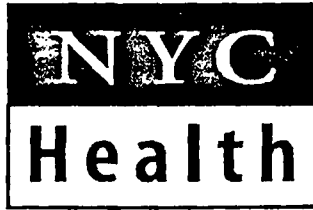
- Before starting the vehicle try to clean it as thoroughly as possible. Using a hose or repeated uses of a bucket, douse the vehicle with water to remove as much standing dirt as possible. Do not use a rag, brush or any scrubbing action. These will grind the abrasive dirt into the paint, ruining it. Only the physical action of the moving water should be used to remove heavy dirt. Then use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.
- Inspect the vehicle's interior for heavy dust and dirt. If it was badly exposed, before starting the vehicle, vacuum the interior thoroughly, paying extra attention to the dashboard and vents, particularly if the vehicle is a '98 or newer model. New cars have lots of computer and electronic devices for controlling various functions located behind the dash that could be damaged by heavy dust. (For this reason owners of newer vehicles should not smoke in their cars.)
- Inspect the engine compartment under the hood of the vehicle. If it is very dusty, vacuum this area as well, paying close attention to the air intake, which can usually be identified as a bellows type of hose. If possible, disconnect the hose and vacuum it.
- If the vehicle received extremely heavy exposure, after vacuuming you should change the air filter taking care not to dislodge any remaining dirt so that the engine might be contaminated. Inspect hoses, belts and pulleys for dirt and try to clean them as much as possible.
- Check the oil and coolant level before starting the engine. Also make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which could be low since the vehicle has not run for some time.
- Check tire pressure and add air if necessary, according to the vehicle manufacturer's specifications.
- When starting the vehicle, do not race the engine. Let it idle about five minutes. Observe the

tailpipe to see if any strange looking vapors or material spew out. The engine may have ingested some dirt that will be discharged when first started. If strange noises are heard or smoke seen, shut the vehicle off and call a professional mechanic to inspect it.

- Drive the vehicle slowly at first to make sure it's operating correctly. If so, take the vehicle on a highway so the force of the air can help flush dust and dirt from under the hood and other areas. Only then should the ventilation system be used, first in the recirculation mode to prevent underhood dust from entering the passenger compartment. After five or ten minutes, switch the ventilation system to bring in outside air.
- As soon as possible, change the oil and oil filter. Any dust or dirt that may have entered the engine will settle in the oil, which must be removed to prevent internal engine damage.

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• MF, recommends adding that you should blow heater/air cond. at high with windows open with occupants out of car the ensure materials are out



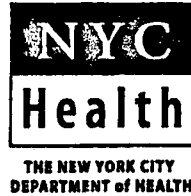
**THE NEW YORK CITY
DEPARTMENT of HEALTH**
(Based on Information Provided By the Automobile Association of America)

Information For Motorists Cars Exposed to Dust and Debris

Motorists living near the World Trade Center disaster site will face some challenges getting their cars going after being subjected to the extreme levels of dust, dirt and soot in the area. The following tips are suggested:

1. Before starting the vehicle try to clean it as thoroughly as possible. Using a hose or repeated uses of a bucket, douse the vehicle with water to remove as much standing dirt as possible. Do not use a rag, brush or any scrubbing action. These will grind the abrasive dirt into the paint, ruining it. Only the physical action of the moving water should be used to remove heavy dirt. Then use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.
2. Inspect the vehicle's interior for heavy dust and dirt. If it was badly exposed, before starting the vehicle, vacuum the interior thoroughly (the use of vacuum cleaners with High Efficiency Particulate Air, or HEPA, filters is strongly recommended), paying extra attention to the dashboard and vents, particularly if the vehicle is a '98 or newer model. New cars have lots of computer and electronic devices for controlling various functions located behind the dash that could be damaged by heavy dust.
3. Inspect the engine compartment under the hood of the vehicle. If it is very dusty, HEPA vacuum this area as well, paying close attention to the air intake, which can usually be identified as a bellows type of hose. If possible, disconnect the hose and vacuum it.
4. If the vehicle received extremely heavy exposure, after vacuuming you should change the air filter taking care not to dislodge any remaining dirt so that the engine might be contaminated. Inspect hoses, belts and pulleys for dirt and try to clean them as much as possible. In addition, open vehicle doors and turn on ventilation system. Leave vehicle and let run for 15 minutes to clean any dust or debris that may have entered system. Clean any dust or debris that may have been blown out.
5. Check the oil and coolant level before starting the engine. Also make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which could be low since the vehicle has not run for some time.
6. Check tire pressure and add air if necessary, according to the vehicle manufacturer's specifications.
7. When starting the vehicle, do not race the engine. Let it idle about five minutes. Observe the tailpipe to see if any strange looking vapors or material spew out. The engine may have ingested some dirt that will be discharged when first started. If strange noises are heard or smoke seen, shut the vehicle off and call a professional mechanic to inspect it.
8. Drive the vehicle slowly at first to make sure it's operating correctly. If so, take the vehicle on a highway so the force of the air can help flush dust and dirt from under the hood and other areas. Only then should the ventilation system be used, first in the recirculation mode to prevent underhood dust from entering the passenger compartment. After five or ten minutes, switch the ventilation system to bring in outside air.
9. As soon as possible, change the oil and oil filter. Any dust or dirt that may have entered the engine will settle in the oil, which must be removed to prevent internal engine damage

NYC Dept. of Health/AAA
September 30, 2001



PUBLIC HEALTH ADVISORY CONCERNING AIR QUALITY IN THE AFFECTED AREA OF THE WORLD TRADE CENTER DISASTER

The NYC Department of Health (DOH), in collaboration with the City, State, and Federal agencies, is closely monitoring and analyzing air quality data in the wake of the World Trade Center disaster. Following the collapse of the Twin Towers, significant quantities of smoke and dust have been released into the air. The plume of smoke contained dust, ash, soot, and other burning materials present at the site.

In general, dusts can cause respiratory symptoms and eye and throat irritation. Because dust will continue to remain in the air during the ensuing clean-up efforts following the World Trade Center disaster, residents in the vicinity of the World Trade Center are encouraged to take precautions when they return to their homes.

What are the Recommendations for Residents Living in Lower Manhattan?

All residents in the immediate vicinity of the World Trade Center - particularly those who live the area bounded by Warren Street to the North, Broadway to the East, the Hudson River to the West, and Exchange and Thames Streets to the South - should take the following precautions when they return to their homes:

- ! Avoid unnecessary outdoor strenuous activity;
- ! Avoid sweeping or other outdoor maintenance;
- ! Keep dust from entering the home (e.g., remove shoes before entering the home);
- ! Keep windows closed;
- ! Set the air conditioner to recirculate air (closed vents), and clean or change the filter frequently;

What should I do if I experience respiratory symptoms?

Dust and other particulate matter have the greatest impact on persons with underlying respiratory conditions. Such individuals may experience chest tightness, wheezing, and shortness of breath. Anyone who has difficulty breathing should consult their physicians, especially those with underlying respiratory conditions. People with asthma may need to increase their usual medical treatment with more frequent use of bronchodilators, and should consult their physicians if necessary.

If I experience any eye irritation what should I do?

Ocular saline solutions or tap water may be used to rinse eyes irritated by dust. All persons should avoid wearing contact lenses while in the affected area.

What are the health effects of asbestos?

Destruction of the World Trade Center buildings released large amounts of dust and ash, some of which contained trace amounts of asbestos. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health effects are very low. Residents who live near the affected area are not at risk of developing asbestos-related illness following the collapse of the World Trade Center buildings.

In general, asbestos-related lung disease general results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration is very low.

What measures are being taken to protect the rescue workers?

Rescue workers have been equipped with half-face masks, goggles, and protective clothing to reduce their exposure to dust and other particulate matter while working in the blast zone.

How can I clean up dusts in or near my home or office?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Dirty rags should be put in plastic bags while they are still wet and bags should be sealed and discarded (cloth rags can be washed, see instructions below). Rags should not be allowed to dry out before bagging and disposal or washing. Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust. High efficiency vacuums, which are now widely available in stores, should be used to remove dust. Carpets and upholstery can be shampooed, then vacuumed.

Persons should shower to rinse off any dust from hair and skin. Dusty clothes should be washed separately from other clothing. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home. To clean plants, rinse leaves with water. *Throw away* any food that may have been contaminated with dust. Food in cans, jars or containers with tight-fitting lids do not need to be discarded. However, if there is dust present on the exterior of vacuum-sealed food containers, just wash the can or jar with water and wipe it clean. **If in doubt, throw it out.**

Air purifiers may help reduce indoor dust levels. High efficiency air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Do pregnant women and young children need to take additional precautions?

No. Pregnant women and young children do not need to take additional precautions



**THE NEW YORK CITY
DEPARTMENT of HEALTH**

DEPARTMENT OF HEALTH

OFFICE OF PUBLIC AFFAIRS
125 WORTH STREET, ROOM 329
NEW YORK, N.Y. 10013
(212) 295-5335/5336 FAX: (212) 941-2156

nyc.gov/health

THOMAS R. FRIEDEN, MD, MPH
Commissioner

SANDRA MULLIN
Associate Commissioner



**FOR IMMEDIATE RELEASE
Tuesday, February 5, 2002**

**CONTACT: Sandra Mullin/Greg Butler
(212) 295-5335/5336; (877) 640-1347**

**NYC DEPARTMENT OF HEALTH PRESENTS FINDINGS FROM INDOOR AIR
SAMPLING TO RESIDENTS OF BUILDINGS IN LOWER MANHATTAN**

*Analysis of Air Samples Taken from Residential Buildings in Lower Manhattan Indicates No
Elevation of Asbestos in Air; Low Levels of Asbestos Found in Surface Samples from Some
Buildings; As Expected, Fiberglass Also Detected in Dust*

As part of an ongoing effort to assess the environmental impact of the World Trade Center (WTC) disaster and to respond to public health concerns, the New York City Department of Health (DOH) requested assistance from the federal Agency for Toxic Substances and Disease Registry (ATSDR) to conduct air tests inside and in the immediate grounds outside thirty residential buildings in lower Manhattan. Asbestos is a health hazard when it is airborne; in no instance was an elevated level of asbestos found in the air samples taken from these buildings.

In addition to the indoor and outdoor air testing, dust samples were also taken from inside apartments, common areas (e.g., hallway, lobby), and outdoor areas of the buildings. Test results from some of the buildings showed low levels of asbestos on the floor of the lobby and on the ground outside. Results from the testing for other materials are not yet complete but preliminary results indicate that fibrous glass (fiberglass) was also present in settled dust samples.

Letters are being sent to building owners and residents informing them of these findings and reminding them of DOH's cleaning recommendations. Because work continues at the WTC site, residents and building owners in the area are advised to continue to follow cleanup instructions. These include using a wet mop, damp cloth or a high efficiency particulate air filter (HEPA) vacuum to clean dust from hard surfaces. HEPA vacuums should be used to clean carpets, upholstery, and other materials that cannot be cleaned by wet wiping. To prevent the recirculation of dust, residents were again advised *not* to sweep with "dry" brooms, use dusters, or use vacuums without an approved HEPA filter. Additionally, since work continues at the World Trade Center site, all residents were advised to avoid carrying dust into their buildings from outdoors (e.g., by taking off shoes, etc).

New York City Health Commissioner Thomas R. Frieden, MD, MPH said, "Since the collapse of the World Trade Center, an event that resulted in the release of large amounts of dust and airborne substances, some residents of lower Manhattan have experienced short-term health problems such as cough, irritation of the eyes, nose, and throat. The data from air quality tests thus far have been reassuring. All of the testing done to date has not shown results that would indicate long-term health impacts. However, conclusive scientific knowledge about the

- - More - -



New York City Department of Health Response to the World Trade Center Disaster

Recommendations for Motorists in the Area Affected by the World Trade Center Disaster.

This Useful Information was Provided to the New York City Department of Health by the American Automobile Association

Motorists living near the World Trade Center disaster site will face some challenges getting their cars going after being subjected to the extreme levels of dust, dirt and soot in the area. The following tips are suggested:

- Before starting the vehicle try to clean it as thoroughly as possible. Using a hose or repeated uses of a bucket, douse the vehicle with water to remove as much standing dirt as possible. Do not use a rag, brush or any scrubbing action. These will grind the abrasive dirt into the paint, ruining it. Only the physical action of the moving water should be used to remove heavy dirt. Then use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.
- Inspect the vehicle's interior for heavy dust and dirt. If it was badly exposed, before starting the vehicle, vacuum the interior thoroughly, paying extra attention to the dashboard and vents, particularly if the vehicle is a '98 or newer model. New cars have lots of computer and electronic devices for controlling various functions located behind the dash that could be damaged by heavy dust. (For this reason owners of newer vehicles should not smoke in their cars.)
- Inspect the engine compartment under the hood of the vehicle. If it is very dusty, vacuum this area as well, paying close attention to the air intake, which can usually be identified as a bellows type of hose. If possible, disconnect the hose and vacuum it.
- If the vehicle received extremely heavy exposure, after vacuuming you should change the air filter taking care not to dislodge any remaining dirt so that the engine might be contaminated. Inspect hoses, belts and pulleys for dirt and try to clean them as much as possible.
- Check the oil and coolant level before starting the engine. Also make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which could be low since the vehicle has not run for some time.
- Check tire pressure and add air if necessary, according to the vehicle manufacturer's specifications.
- When starting the vehicle, do not race the engine. Let it idle about five minutes. Observe the

- - Page Two - -

potential health hazards of some substances is not available. It is not possible to know with certainty whether there will be long-term health consequences.”

“DOH recognizes residents’ concerns and will continue to work closely with local, State and Federal agencies to monitor air quality and to inform the public of findings as soon as results are available. Additionally, DOH has been working with the U.S. Centers for Disease Control and Prevention (CDC) to develop a protocol for a World Trade Center Registry, which would generate and maintain a database that can provide a more complete picture of short- and long-term health and mental health impacts among the affected populations,” Dr. Frieden concluded.

The Sampling Plan

At the request of DOH, ATSDR conducted indoor air tests in 59 apartments in 30 geographically representative buildings in lower Manhattan in November and December 2001. Testing was also conducted in four buildings above 59th Street not impacted by migrating dusts from the World Trade Center site to provide information on the background level of various substances present indoors in New York City. Using widely accepted testing methods, the agency looked for several materials that could potentially cause short and long-term health problems. Each set of tests included samples for air and for settled dust, and these samples were analyzed for fiber-like materials - asbestos, fibrous glass - and for other particles including silica, gypsum, mica, and calcite.

A comprehensive report on this testing will be available this spring. However, if results of public health significance are found, they will be released to the public as soon as they become available. Results of outdoor sampling since September 11 for air, water, and dust – including asbestos and particulate matter – are posted on the U.S. Environmental Protection Agency's website, epa.gov, and can also be found on the New York City Department of Environmental Protection (DEP) website at nyc.gov/dep. WTC-related information can also be found at the New York City Department of Health's Web site at nyc.gov/health.

Health Information about Asbestos and Fiberglass

Exposure to asbestos is associated with asbestosis (scarring of the lungs) and cancer. The risk of developing these diseases depends on the level (dose) and the length of time exposed (duration). The likelihood of developing disease from limited, short-term, low-level exposure is low. There is no test that can indicate whether an individual has been exposed to asbestos. In the occupational setting, where the duration and intensity of asbestos exposure can be greater, there is a higher risk to workers. Workers need to use the correct protective equipment to reduce exposure.

Exposure to some forms of fiberglass can cause cough, eye, nose, skin, and throat irritation. Long-term health effects associated with fibrous glass are not known and standards for measurement of fibrous glass in environmental samples are not well established. Although fiberglass is classified as a possible carcinogen, recent studies of more than 30,000 industrial workers who worked with fiberglass found no conclusive evidence of an increased risk of cancer.

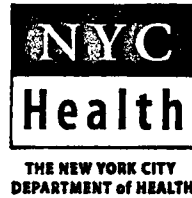
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tailpipe to see if any strange looking vapors or material spew out. The engine may have ingested some dirt that will be discharged when first started. If strange noises are heard or smoke seen, shut the vehicle off and call a professional mechanic to inspect it.

- Drive the vehicle slowly at first to make sure it's operating correctly. If so, take the vehicle on a highway so the force of the air can help flush dust and dirt from under the hood and other areas. Only then should the ventilation system be used, first in the recirculation mode to prevent underhood dust from entering the passenger compartment. After five or ten minutes, switch the ventilation system to bring in outside air.
- As soon as possible, change the oil and oil filter. Any dust or dirt that may have entered the engine will settle in the oil, which must be removed to prevent internal engine damage.

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PUBLIC HEALTH ADVISORY CONCERNING AIR QUALITY IN THE AFFECTED AREA OF THE WORLD TRADE CENTER DISASTER

The NYC Department of Health (DOH), in collaboration with the City, State, and Federal agencies, is closely monitoring and analyzing air quality data in the wake of the World Trade Center disaster. Following the collapse of the Twin Towers, significant quantities of smoke and dust have been released into the air. The plume of smoke contained dust, ash, soot, and other burning materials present at the site.

In general, dusts can cause respiratory symptoms and eye and throat irritation. Because dust will continue to remain in the air during the ensuing clean-up efforts following the World Trade Center disaster, residents in the vicinity of the World Trade Center are encouraged to take precautions when they return to their homes.

What are the Recommendations for Residents Living in Lower Manhattan?

All residents in the immediate vicinity of the World Trade Center - particularly those who live the area bounded by Warren Street to the North, Broadway to the East, the Hudson River to the West, and Exchange and Thames Streets to the South - should take the following precautions when they return to their homes:

- ! Avoid unnecessary outdoor strenuous activity;
- ! Avoid sweeping or other outdoor maintenance;
- ! Keep dust from entering the home (e.g., remove shoes before entering the home);
- ! Keep windows closed;
- ! Set the air conditioner to recirculate air (closed vents), and clean or change the filter frequently;

What should I do if I experience respiratory symptoms?

Dust and other particulate matter have the greatest impact on persons with underlying respiratory conditions. Such individuals may experience chest tightness, wheezing, and shortness of breath. Anyone who has difficulty breathing should consult their physicians, especially those with underlying respiratory conditions. People with asthma may need to increase their usual medical treatment with more frequent use of bronchodilators, and should consult their physicians if necessary.

If I experience any eye irritation what should I do?

Ocular saline solutions or tap water may be used to rinse eyes irritated by dust. All persons should avoid wearing contact lenses while in the affected area.

What are the health effects of asbestos?

Destruction of the World Trade Center buildings released large amounts of dust and ash, some of which contained trace amounts of asbestos. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health effects are very low. Residents who live near the affected area are not at risk of developing asbestos-related illness following the collapse of the World Trade Center buildings.

In general, asbestos-related lung disease general results only from intense asbestos exposure experienced over a period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration is very low.

What measures are being taken to protect the rescue workers?

Rescue workers have been equipped with half-face masks, goggles, and protective clothing to reduce their exposure to dust and other particulate matter while working in the blast zone.

How can I clean up dusts in or near my home or office?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Dirty rags should be put in plastic bags while they are still wet and bags should be sealed and discarded (cloth rags can be washed, see instructions below). Rags should not be allowed to dry out before bagging and disposal or washing. Because the dust particles are so small, standard vacuuming is not an efficient way to remove the dust. High efficiency vacuums, which are now widely available in stores, should be used to remove dust. Carpets and upholstery can be shampooed, then vacuumed.

Persons should shower to rinse off any dust from hair and skin. Dusty clothes should be washed separately from other clothing. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home. To clean plants, rinse leaves with water. *Throw away* any food that may have been contaminated with dust. Food in cans, jars or containers with tight-fitting lids do not need to be discarded. However, if there is dust present on the exterior of vacuum-sealed food containers, just wash the can or jar with water and wipe it clean. **If in doubt, throw it out.**

Air purifiers may help reduce indoor dust levels. High efficiency air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Do pregnant women and young children need to take additional precautions?

No. Pregnant women and young children do not need to take additional precautions

Gerry Kelpin

From: "Miller, Mark D." <Zdq8@cdc.gov>
To: <krishr@nysnet.net>; <gkelpin@nysnet.net>
Sent: Friday, January 25, 2002 1:50 PM
Attach: Re-occupancy and cleaning fact sheet1-24.wpd
Subject: Revised NYCDOH Fact Sheets Needs Your

Krish, I'm with ATSDR and have been working with Nancy Jeffery at NYCDOH for the past few weeks revising fact sheets. We have finished a revision on a fact sheet but need your input on how to quantify light dust accumulations and large. Please review our wording and see if you agree....you'll find it in the 3rd and 4th paragraphs of the building owner responsibilities section.

<<Re-occupancy and cleaning fact sheet1-24.wpd>>

Let us know what you think....

Thanks

Mark Miller

Gerry Kelpin

1/25/2002

New York City Department of Health Responds to the World Trade Center Disaster

FACT SHEET FOR RE-OCCUPANCY AND CLEANING HOMES

Revised 01/25/02

The collapse of the World Trade Center (WTC) caused a large amount of dust, soot, ash, and other building materials to enter into some homes in the surrounding area. Because cleanup work continues at the site, dust can still be a concern for some residents. Dust can irritate your eyes, nose and throat. Dust can also cause coughing, shortness of breath and wheezing in some people. The following statements provide guidance to tenants and building owners on cleaning responsibilities and procedures.

Building Owner Responsibilities

In September, both the New York City Department of Environmental Protection (DEP) and the Department of Health (DOH) advised building owners regarding building maintenance and re-occupancy issues. The steps to be taken prior to re-occupying buildings included the cleaning of air circulation systems and water tanks as well as assessing building contamination for possible hazardous components, including asbestos. Building owners are responsible for the cleaning of building exteriors, grounds, and common indoor areas as well as the provision of general building services (e.g. heat, water, electric, gas, etc.). It should be pointed out that, due to changing conditions and continued activity at Ground Zero, building owners should periodically assess the condition of building exteriors and air conditioning systems for cleanliness and may have to periodically re-clean areas. Proper methods for cleaning should be followed.

The DOH urges building owners to discuss building related cleaning concerns with tenants. Building owners should provide residents with information concerning the steps that have been taken to ensure that the appropriate actions have been performed, including the results of any testing performed and the nature and extent of cleaning performed.

The DEP has determined that minimal dust accumulations (light coatings) can be cleaned using wet methods and/or vacuums equipped with high efficiency particulate air (HEPA) filters. Some asbestos could be present in the light coatings of dust but the use of wet cleaning methods and HEPA vacuuming listed in this fact sheet will greatly minimize a person's risk of exposure.

Large accumulations (completely covered or blanketed) of debris inside or outside will require assessment for possible asbestos content by a certified asbestos investigator prior to cleanup (<http://www.ci.nyc.ny.us/html/dep/html/airfirms.html#investigators>). The DEP website provides detailed information concerning the steps required when asbestos containing material is suspected and/or present (<http://www.ci.nyc.ny.us/html/dep/html/asbestos.html>).

Tenant Responsibilities

Many aspects of the general advisements issued in September also apply to tenants. Tenants are responsible for cleaning their own interior living spaces, including terraces, once any general and common building concerns which may interfere with interior living space cleanup have been

addressed by the owner. The DOH guidelines listed at the bottom of the page will provide additional information regarding regular cleaning. In the event that you do not have access to HEPA vacuums for cleaning, the use of wet cleaning methods alone will also be effective in removing accumulations of dust. Frequent cleaning may be necessary to control accumulations of dust. The use of personal HEPA air cleaning devices in the living area may be effective in reducing the amount of particulate circulating in the air. A HEPA air cleaning device which also contains charcoal or carbon filters may be effective in the partial removal of minor, nuisance level odors.

Tenants and building owners should discuss the satisfactory resolution of building related cleaning concerns. Building owners should provide residents with information concerning the steps that have been taken to ensure that the appropriate actions have been performed, including the results of any testing performed and the nature and extent of cleaning performed. City agencies will respond to any additional or continuing concerns or questions you may have, however, the minimum actions outlined here are essential for the safe re-occupancy of buildings in the lower Manhattan area. City agency contact information is listed at the conclusion of this fact sheet.

Routine Cleaning Procedures in Homes

Large accumulations inside or outside will require assessment for possible asbestos content as outlined previously. The following are recommendations for routine cleaning of minimal dust accumulation or a light coating of dust.

- Proper dust cleanup will prevent settled dust from being reintroduced into the air. The best way to remove dust from surfaces is to use a wet/damp cloth or wet/damp mop. Sweeping the dust dry may cause it to get in the air you breathe. More detailed cleaning procedures are listed below.
- Some people have reported irritation from dust in the air when they clean. You can use a dust mask to further protect yourself from breathing dust while cleaning. The dust can cause irritation of your nose, throat and lungs. An N-95 type dust mask is recommended for use during routine cleaning. These masks can be found at most local hardware and home improvement stores.
- Use a high efficiency particulate air vacuum cleaner (HEPA) to clean dust from carpets, upholstery, and other materials that cannot be cleaned by wet wiping. A regular (standard) vacuum cleaner bag and filter is not recommended because it will blow dust from the floor into the air. If you do not have a HEPA vacuum, ask your building management company if they have a HEPA vacuum you can use. HEPA vacuums are available at most retail stores. In addition, Safe Horizons can provide some assistance with cleaning items for homes south of Canal Street, for more information contact them at 1-866-689-4357.
- Floors or surfaces with light dust accumulation can be cleaned by wet mopping/wiping. Wash water used for cleaning should be disposed of in the sink or toilet. Cloths and mops can be reused or disposed of after use. If reused, dirty mop heads and cleaning cloths should be washed separately from regular laundry.
- Floors or surfaces with a light visible dust accumulation can be HEPA vacuumed first then wet wiped/mopped using the procedure stated above. This step can help reduce the amount of dust stirred up.

- If cleaning cloths/mops are not reused, place used items in plastic bags while wet then dispose in your trash.
- Surfaces that cannot be cleaned by wet cleaning methods can be cleaned by HEPA vacuuming.
- Outdoor surfaces with small accumulations of dust can be cleaned by HEPA vacuuming or by wet moping/wiping if the surface type allows. When cleaning outdoor areas such as terraces precautions should be taken to prevent dust and other materials from falling to the side walk or properties below.
- Dust from outdoors can be carried home on your shoes so remove them before going inside or wet wipe them.
- Pets can also track material inside. Make sure to wipe their feet with a damp cloth before coming inside.
- Clean more frequently than normal to minimize dust accumulation and dust levels in air.
- Dust can accumulate on your hands during cleaning. Wash your hands after cleaning, before eating, drinking, and before smoking.

Additional Ways To Improve Your Indoor Air Quality

- The use of HEPA air purifying devices in living areas can be an effective way of reducing the amount of dust circulating in the air. The HEPA air purifying units are sold in various sizes depending on room size and are available at local hardware and retail stores . In addition, some HEPA purifying units come equipped with charcoal or carbon filters that can remove minor, nuisance level odors.
- Additional information on the selection and purchase of residential air cleaning devices can be obtained from the Environmental Protection Agency's website at www.epa.gov/iaq/pub/residair
- Consideration should be given to upgrading the filters for the buildings air conditioning system. A professional heat and air specialist can provide advice on upgrading the filtration system. An upgraded filter can greatly improve the air quality of the building.
- Air conditioning filters should be changed on a frequent basis to insure clean air is provided to the building.
- Clean on regular basis to prevent dust buildup using the wet methods described previously.
- Seal around windows and outer openings to prevent the introduction of dust and fine particles into the home.

For further information, please refer to the agency websites or telephone contacts listed below.

For World Trade Center Health Concerns:

New York City Department of Health

www.nyc.gov/health

(212) 213-1844

For Asbestos, Noise, and Environmental Concerns:

New York City Department of Environmental Protection

www.nyc.gov/dep

(718) DEP-HELP

Revised 01/25/01



New York City Department of Health Response to the World Trade Center Disaster

Public Health Advisory Concerning Air Quality in the Affected Area of the World Trade Center Disaster

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What should I do if I experience respiratory symptoms?

Dust and other particulate matter have the greatest impact on persons with underlying respiratory conditions. Such individuals may experience chest tightness, wheezing, and shortness of breath. Anyone who has difficulty breathing should consult their physicians, especially those with underlying respiratory conditions. People with asthma may need to increase their usual medical treatment with more frequent use of bronchodilators, and should consult their physicians if necessary.

If I experience any eye irritation what should I do?

Ocular saline solutions or tap water may be used to rinse eyes irritated by dust. All persons should avoid wearing contact lenses while in the affected area.

What are the health effects of asbestos?

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contained trace amounts of asbestos. Based on the asbestos test results received thus far, the general public's risk for any short or long term adverse health affects are very low. Residents who live near the affected area are not at risk of developing asbestos-related illness following the collapse of the World Trade Center buildings.

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How can I clean up dusts in or near my home or office?

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New York City Department of Health Response to the World Trade Center Disaster

Recommendations for Motorists in the Area Affected by the World Trade Center Disaster.

This Useful Information was Provided to the New York City Department of Health by the American Automobile Association

Motorists living near the World Trade Center disaster site will face some challenges getting their cars going after being subjected to the extreme levels of dust, dirt and soot in the area. The following tips are suggested:

- Before starting the vehicle try to clean it as thoroughly as possible. Using a hose or repeated uses of a bucket, douse the vehicle with water to remove as much standing dirt as possible. Do not use a rag, brush or any scrubbing action. These will grind the abrasive dirt into the paint, ruining it. Only the physical action of the moving water should be used to remove heavy dirt. Then use very soapy water to wash the car. When clean, swirling patterns may be noticed in the finish if the vehicle was subjected to very heavy exposure. A professional compound job available at most auto shops should restore the luster.
- Inspect the vehicle's interior for heavy dust and dirt. If it was badly exposed, before starting the vehicle, vacuum the interior thoroughly, paying extra attention to the dashboard and vents, particularly if the vehicle is a '98 or newer model. New cars have lots of computer and electronic devices for controlling various functions located behind the dash that could be damaged by heavy dust. (For this reason owners of newer vehicles should not smoke in their cars.)
- Inspect the engine compartment under the hood of the vehicle. If it is very dusty, vacuum this area as well, paying close attention to the air intake, which can usually be identified as a bellows type of hose. If possible, disconnect the hose and vacuum it.
- If the vehicle received extremely heavy exposure, after vacuuming you should change the air filter taking care not to dislodge any remaining dirt so that the engine might be contaminated. Inspect hoses, belts and pulleys for dirt and try to clean them as much as possible.
- Check the oil and coolant level before starting the engine. Also make sure the battery's terminals are clean. Dirty terminals create extra resistance, putting more strain on the battery, which could be low since the vehicle has not run for some time.
- Check tire pressure and add air if necessary, according to the vehicle manufacturer's specifications.
- When starting the vehicle, do not race the engine. Let it idle about five minutes. Observe the

tailpipe to see if any strange looking vapors or material spew out. The engine may have ingested some dirt that will be discharged when first started. If strange noises are heard or smoke seen, shut the vehicle off and call a professional mechanic to inspect it.

- Drive the vehicle slowly at first to make sure it's operating correctly. If so, take the vehicle on a highway so the force of the air can help flush dust and dirt from under the hood and other areas. Only then should the ventilation system be used, first in the recirculation mode to prevent underhood dust from entering the passenger compartment. After five or ten minutes, switch the ventilation system to bring in outside air.
- As soon as possible, change the oil and oil filter. Any dust or dirt that may have entered the engine will settle in the oil, which must be removed to prevent internal engine damage.

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PROPOSED SCOPE OF WORK

WTC Standardized Vehicle Wash Operations

The following scope of work is proposed for the Vehicle Wash points leading out of the WTC operations area.

1. ALL VEHICLES: The wash point personnel will, as a minimum, spray all vehicles exiting through the wash points by using pressure washers to remove dirt, dust, and other debris. This entails pressure washing the following areas on all vehicles:

- a. Front
- b. Both Sides
- c. Rear (including tailgate if applicable)
- d. Undercarriage
- e. Tires.

2. FLATBED TRAILERS: In addition to the tasks performed in item 1 above, the wash point personnel will use fire hoses to remove dirt, detached insulation, and other debris laying on the trailer bed. **This removal of debris from the bed of the trailer at wash points can only take place if the structural steel and accumulated debris have been inspected and cleared by the FBI.** Additionally, the insulation and debris attached to the structural steel will be misted for dust suppression purposes. The wash point personnel will periodically remove the accumulated debris at the wash points with the use of Vac trucks. Once the flatbed trailers arrive at the pier, and after the structural steel is removed, the trailer bed will be cleaned using a Vac truck or pressure washed prior to its departure from the pier.

3. DUMP TRUCKS: In addition to the tasks performed in item 1 above, the wash point personnel will "fog" the contents of the dumptrucks that do not receive a canvas cover (used to reduce fugitive emissions) by using fire hoses from an elevated position. The wash point personnel will apply sufficient water to mist the dump bed contents to "maintain adequately wet" during the transport to the landfill (without compromising evidence integrity). Once the dumptrucks arrive at the landfill or transfer station and dump their load, (and the dump bed is inspected/cleared by FBI agents) the dump beds will then be sprayed using a pressure washer.

4. All wash point personnel shall wear the following Personal Protective Equipment (PPE): half-face respirator with P100 cartridges (minimum), hard hat, appropriate gloves, splash suit, face shield steel-toe boots with overboots or equivalent. Personnel working on elevated platforms will implement appropriate fall protection measures.

5. MISC.: Cars that are inside the security area (and were impacted during the September 11 event) and are being driven out by the owners need to be thoroughly cleaned prior to the car leaving the secured area to prevent exposure to the owner and detailing companies. This shall include a thorough washing of the exterior of the car as well as a thorough vacuuming of the interior of the vehicle. Since this will take extra time, these vehicles should be pulled to the side of current operations and completed when time permits so that truck traffic flow is not affected.

NIOSH GUIDANCE ON RESPIRATORY PROTECTION FOR WTC WORKERS

This is a summary of the respiratory protection recommended for workers on, above, or near the WTC rubble pile. It includes guidance expanding the types of facepieces and particulate filters that should be used. Be aware that ongoing worker exposure assessments may result in further or more stringent respiratory protection recommendations for WTC workers.

Elastomeric, air-purifying, half-facepieces

Factors considered when selecting respiratory protection include documented and potential airborne hazards, the physical characteristics of a work area, the physical demands on workers, and the advantages, disadvantages, and protective capabilities of respirators. Non-powered, air-purifying respirators are light-weight and give workers mobility. Both are key factors for WTC workers. A half-facepiece respirator that is properly used and fit tested will reduce worker exposures to about 10% of what it would be without the respirator.

Because eye protection is also important for WTC workers, goggles should be worn with half-facepiece respirators. Full-facepiece, air-purifying respirators could be an alternative to provide needed eye protection; however, they may interfere with field of vision. A full-facepiece respirator that is properly used and fit tested will reduce worker exposures to about 2% of what it would be without a respirator.

P-100 particulate filters

Because of potential worker exposures to airborne asbestos, using high-efficiency filters was recommended (reference: OSHA 1910.1001). The P-category of resistance to filter-efficiency degradation (oil-Proof) was recommended because the presence of oil aerosols among the contaminants was uncertain, and unlike the N-category (Not resistant to oil) and the R-category (Resistant to oil), they may be used for longer than one work shift. However, air sampling to date has not identified an oil aerosol concern. For the reason given below, WTC workers should discard respirator cartridges at the end of each work shift. Thus, N- and R-category particulate filters could also be used.

Organic vapor and acid gas

Combustion byproducts generated during fires are known to have a potential for containing organic vapors and acid gases. Because the actual gases and vapors as well as the air concentrations encountered by workers can vary with factors such as work location, tasks, duration, and weather conditions, cartridges should be discarded after a work shift.

September 28, 2001

ES&H WTC Evaluation

An overall site environmental S&H assessment was conducted on September 28, 2001 of the WTC disaster area. The primary focus was to identify any major unsafe practices or unsafe conditions that pose a threat to search and rescue personnel, cleanup workers, and support personnel on site.

Major Concerns and proposed corrective actions are listed below:

- **Concern:** Subcontractor to Turner cleaning American Stock Exchange building was throwing bags and debris down 5/6 floors to the street. Bags were bursting and scattering debris throughout the street, no barricades, or proper disposal of debris.
Recommended Correction Action: Shut down contractor - contacted Turner to handle. Turner immediately corrected problem.
- **Concern:** Lack of use of fall protection in man basket when working over rubble pile - Tully
Recommended Correction Action: Notified Tully to determine if individuals were FDNY or craft. Tully still researching.
- **Concern:** Individuals riding in bucket and backhoe, while full of gas bottles
Recommended Correction Action: All contractors will be notified to eliminate this practice
- **Concern:** 98% non-compliance with eye protection, and 30% non-compliance for individuals working on or near pile.
Recommended Correction Action: Continue to push for compliance with contractors and Agencies
- **Concern:** Equipment, gaters, cars, trucks, etc. speeding throughout the site.
Recommended Correction Action: Recommend that we establish a 5 m.p.h. speed limit throughout the site
- **Concern:** Individuals burning and cutting without eye protection
Recommended Correction Action: Contractors should direct all individuals to wear appropriate eye protection while performing task that could cause eye injury
- **Concern:** Exposed open holes not properly barricaded
Recommended Correction Action: Contractors should properly barricade all open holes where individuals or equipment could fall
- **Concern:** Equipment backing up without spotters
Recommended Correction Action: All equipment either moving forward into position or reversing out of position should have proper spotters to clear the path for the vehicle or equipment
- **Concern:** Swing radius of cranes not properly barricaded
Recommended Correction Action: Contractors should ensure that all crane swing radiuses are properly barricaded
- **Concern:** Individuals placing themselves in traffic patterns narrowly missing being injured
Recommended Correction Action: Walking paths should be established to prevent individual from walking in the paths of the dump truck lane



ENVIRONMENTAL HEALTH QUESTIONS FOLLOWING THE WORLD TRADE CENTER DISASTER

The September 11, 2001 World Trade Center (WTC) disaster was unprecedented in the history of the United States. The New York City Department of Health (DOH), as well as other City, State and federal agencies continue to monitor conditions and are committed to working with the community to identify and address health concerns. The purpose of this fact sheet is to answer common questions related to the WTC disaster, particularly as they relate to the fires at the site and the potential impact on public health.

Why did the fires at the site burn for so long?

Initially, it was anticipated that the fires would cease burning within the first few weeks of the disaster. Unfortunately, they continued to burn at the site, contributing to prolonged, intermittent releases of smoke into the air. In most situations, fires in buildings can be put out quickly. In the case of the WTC, the fires burned below the surface and were fed by large quantities of combustible materials like carpeting, furniture, computers, and other building materials. As steel and rubble are removed and the pile shifts, oxygen is added to the hot embers and the fires can be revived. As a consequence, smoke continued to be released intermittently.

I live and/or work downtown. Do I need to be concerned about the air I'm breathing?

For healthy people living and working in areas near the WTC site, it is believed that the contaminant levels in the environment do not pose serious long-term health risks. While exposure to smoke can cause eye, nose and throat irritation among healthy individuals, these symptoms are usually short-lived and are unlikely to lead to ongoing health problems. The fires at the site can also contribute to odors in the surrounding area. When odors are present, some people may experience short-term effects such as respiratory irritation, headaches and dizziness. These effects tend to lessen once exposure to the odors is stopped.

ADVISORY: If you experience more serious symptoms, such as shortness of breath, or chest pains, or if you have a medical condition you feel is worsening, you should seek medical attention immediately.

I am experiencing eye, nose, and throat irritation. What from the WTC site may be causing this?

Smoke from the fires still burning at the WTC site is the likely source of compounds such as airborne particles or particulate matter (PM) and sulfur oxides, which can cause

temporary airway irritation. Results of analyses of the fine particles in the air have shown that sometimes the composition of the particles is alkaline, which can also result in respiratory irritation.

If I have asthma or other respiratory conditions, am I at greater risk for adverse health effects?

If you have asthma, chronic bronchitis, emphysema, or other respiratory ailments, you may be more affected by ongoing exposure to the smoke.

ADVISORY: If you have asthma or other respiratory conditions, work with your health care provider to make sure that you are on the proper medications to stabilize your condition. It is also important to limit your exposures to dust, smoke and other triggers that in the past have affected your health condition. For example, on days when the outside air causes you discomfort, you should limit outdoor exercise or activities. Air filters can be used indoors to improve indoor air quality.

I still notice dust in the neighborhood. What is being done to control the dust and clean up the neighborhood?

Initially, the collapse of the WTC towers caused significant quantities of smoke and dust to be released into the surrounding area. The dust contained a range of construction materials including concrete, gypsum, silica, plastics, and fiberglass. Asbestos, which was used in portions of the building as insulation, has also been found in smaller quantities in the dust and debris.

In order to reduce dust in the environment and minimize exposure, the following steps have been taken:

- In the first few weeks after the disaster, the Department of Sanitation (DOS) and Department of Transportation (DOT) mounted an extensive clean up effort to remove debris from surrounding public areas. The DOS continues routine wetting-down of streets in the downtown area in order to minimize dust that may currently be generated from the WTC site.
- All trucks leaving the WTC site are required to be hosed down before leaving the site and trucks carrying debris out of the site are required to be covered.
- Steel beams are wetted down before they are loaded onto the barge located at Pier 25, at the West Side Highway and one block north of Chambers Street.

The NYC Department of Environmental Protection (DEP) has issued guidance on cleaning building exteriors for residential and or commercial buildings. These guidelines can be found at the DEP website at nyc.gov/dep.

Do I need to be worried about asbestos in the air?

Asbestos was found in samples of dust and debris near the WTC site in the first few weeks after the WTC incident. Based on those results, extensive air monitoring for asbestos was conducted in the neighborhood surrounding the WTC site. Workers on-site have been instructed to wear protective equipment such as respirators, as they may be handling asbestos-containing materials as well as other contaminants.

*Should include
DEP/EPA
H&PA JOC.*

While environmental air sampling results outside of the debris pile and outside of the plume continue to show that levels of dust and other substances are within the levels specified by federal standards, City and State health agencies are communicating with physicians in the community to determine health conditions.

What is fine particulate matter and why is it being monitored?

The explosion at the WTC released very small airborne particles into the air known as "fine particulate matter," or "PM" for short. Particulate matter comes mostly from the process of combustion (burning). Fires are a source of particulate matter, as is the exhaust from cars, trucks, buses, and other operations that involve the burning of fuel.

Particulate matter ranges in size from very small to larger particles. The most commonly measured sizes are PM_{2.5} and PM₁₀. PM_{2.5} refers to particles that are 2.5 microns or less in diameter. These particles are extremely small and are therefore more likely to be inhaled deeper into the lungs. PM₁₀ refers to particles that include 2.5 microns in size as well particles up to 10 microns in diameter, which, because of their relatively larger size, cannot travel as deep into the lungs. Increased levels of fine particulate matter can cause eye, nose, throat and lung irritation, which can trigger coughing and sneezing. Such exposures may aggravate symptoms for persons with underlying respiratory conditions.

Even prior to September 11, the New York State Department of Environmental Conservation (NYSDEC) has had continuous (real-time) air particulate monitors (PM_{2.5}) collecting samples at eleven sites in New York City. These routine monitors are located in each Borough. The data from these monitors are evaluated daily. Additional monitors have been set up to collect particulate data (PM_{2.5} and PM₁₀) in the community near the site. Results from the air monitors are compared to the National Ambient Air Quality Standard. For PM₁₀ the standard is 150 micrograms of particles per cubic meter of air (ug/m³). For PM_{2.5}, the standard is 65 ug/m³ for the general population. The PM_{2.5} standard is 40 ug/m³ for people with respiratory illnesses, individuals with heart problems and the elderly or young, since these individuals may be more susceptible to more severe symptoms.

What are the results of the PM 2.5 and PM₁₀ monitoring?

Testing at the monitoring sites set up both before and after September 11th has revealed that, in general, levels of fine and course Particulate Matter have been within the EPA standards.

Where can I find more information on the WTC-related environmental testing?

Daily WTC-related reports that contain results of sampling for air, water, and dust – including asbestos and Particulate Matter – are posted online at the U.S. Environmental Protection Agency's website, epa.gov. DEP results are posted at nyc.gov/dep.

January 2002

Based on the asbestos air test results so far, the risk for disease from asbestos exposure in the community near the WTC is very low. Asbestos exposure does not cause immediate symptoms and short-term exposure cannot be detected by routine medical tests, such as physical exams, blood work or chest x-rays. It takes at least 15-20 years to see any symptoms or disease related to asbestos exposure, but experts believe that the levels of exposure to asbestos are low enough that the likelihood of developing disease from the limited, short-term exposures associated with the WTC incident is very small.

For the general public, working and/or living in the surrounding area, DEP issued guidance to building management or the building owner on what must be done to deem a building safe for re-occupancy. These DEP guidelines are still in effect. The DOH issued cleaning guidance for residents of buildings that were deemed to be safe for re-occupancy. This information can be found at nyc.gov/health.

While the risk for asbestos-related illness is thought to be very low, it is still prudent to take clean-up precautions to further reduce any unnecessary exposures. These simple steps include the following: wet wiping and mopping dusty surfaces, using a HEPA-filtered vacuum if possible, and removing shoes before entering homes to reduce tracking dust indoors. These precautions should be taken until the demolition and clean up at the WTC is completed.

What is fiberglass, and what are its potential adverse health effects?

Fiberglass is the trade name for a man-made mineral fiber that also may be called fibrous glass or glass wool. Fiberglass can be found in many different consumer products. In the past it was used for home furnace filters and insulation. Today it is used to insulate pipes and appliances, for sound control in aircraft and automobiles, and in curtains, roofing materials and reinforced plastics.

Fiberglass may have been used in the construction of the WTC. Extensive air monitoring to date has indicated that fiber concentration in air—including asbestos and fiberglass—is low.

High levels of occupational exposure to fiberglass fibers may cause skin irritation and itching. It may also cause upper respiratory tract irritation and may aggravate asthma or bronchitis. These are temporary conditions and are unlikely to occur for people in the community given the low concentrations of fibers in the air around the disaster area.

What is the illness being referred to in newspapers as "WTC Cough?"

The terminology "WTC Cough" has been used to refer to a condition identified in people who may have developed a persistent cough and other respiratory symptoms related to working at or near the WTC site. Physicians in the community have described such a cough among individuals who worked at the site within the first few days after the disaster when smoke and exposure conditions were most intense. Workers on the debris pile have been instructed to wear the appropriate personal protective equipment, including respirators, to prevent injuries or adverse health effects.



New York City Department of Health Responds to the World Trade Center Disaster

Recommendations for People Re-Occupying Commercial Buildings and Residents Re-Entering Their Homes

What steps should I take upon returning to my workplace or home?

If you were evacuated from a residence or workplace south of Warren Street, west of Broadway, and north of Exchange Street, and have been approved to resume tenancy by your building manager, you are advised to wear a dust mask upon entering this area to decrease the possibility of dust inhalation and throat irritation. Outside these boundaries, masks are not necessary, but may be worn for your own comfort. If there is dust present indoors, it should not be necessary to wear this mask if you follow the cleaning procedures detailed below.

In a workplace, speak to your supervisor to see if there are special startup and cleaning procedure. In very dusty places, clean-up may be necessary before equipment can be restarted. Follow the cleaning procedures discussed below.

In your home, you should first make sure that conditions are safe. You should enter your home dressed in a long sleeve shirt and pants, and with closed shoes. Upon entry:

- Check for the smell of gas. If the apartment smells of gas, leave immediately and report it to your building manager and to Con Edison.
- Check for broken glass and fixtures. Wrap any broken glass in paper and mark it "broken glass." If large pieces of glass are broken, ask your building superintendent for instructions on disposal.
- Run hot and cold water from each of the taps for at least two minutes, or until water runs completely clean.
- Flush toilets until bowls are refilled. For air pressure systems, you may need to flush several times. If there are any problems with the toilet or plumbing system, call a plumber -- do not try to fix the problem yourself.
- Follow the cleaning procedures discussed below.

I have heard that asbestos was released from the collapse of the World Trade Center. What are the health effects of asbestos?

Because some asbestos was used in the building of the World Trade Center, City, State, and Federal agencies have been collecting dust, debris, and air samples since the World Trade Center collapse. As expected, some asbestos was found in a few of the dust and debris samples taken from the blast site and individuals working in this area have been advised to take precautions. However, most of the air samples taken have been below levels of concern. Based on the asbestos test results received thus far, there are no significant health risks to occupants in the affected area or to the general public.

In general, asbestos-related lung disease results only from intense asbestos exposure experienced over a

period of many years, primarily as a consequence of occupational exposures. The risk of developing an asbestos-related illness following an exposure of short duration, even to high levels, is extremely low.

What should I do with food left in my apartment?

The power outage in much of lower Manhattan may have caused refrigerated and frozen food to spoil. Raw or cooked meat, poultry and seafood, milk and milk-containing products, eggs, mayonnaise and creamy dressings, and cooked foods should be thrown out if power was out for two or more hours. Frozen foods that have thawed should be thrown away. Do not re-freeze thawed food.

Throw away any food that may have been contaminated with dust, except for food in cans, jars, or containers with tight-fitting lids. Wash cans and jars with water and wipe it clean. When it comes to food left in your building, if in doubt, throw it out.

How should I clean the dust in my apartment when I move back in?

The best way to remove dust is to use a wet rag or wet mop. Sweeping with a dry broom is not recommended because it can make dust airborne again. Where dust is thick, you can directly wet the dust with water, and remove it with wet rags and mops. Dirty rags can be rinsed under running water, being careful to not leave dust in the sink to dry. When done, used rags and mops should be put in plastic bags while they are still wet and bags should be sealed and discarded. Cloth rags should be washed separately from other laundry. Wash heavily soiled or dusty clothing or linens twice. Remove lint from washing machines and filters in the dryers with each laundry load. Rags should not be allowed to dry out before bagging and disposal or washing.

To reduce dust recirculation, the Health Department recommends using HEPA (high efficiency particulate air) filtration vacuums when cleaning up apartments, if possible. If a HEPA vacuum is not available, it is recommended that either HEPA bags or dust allergen bags be used with your regular vacuum. If these options are not available, wetting down the dust and removing it as described above is recommended.

Carpets and upholstery can be shampooed and then vacuumed.

- If your apartment is very dusty, you should wash or HEPA vacuum your curtains. If curtains need to be taken down, take them down slowly to keep dust from circulating in the air.
- To clean plants, rinse leaves with water. Pets can be washed with running water from a hose or faucet; their paws should be wiped to avoid tracking dust inside the home.

How can I remove dust from the air?

Air purifiers may help reduce indoor dust levels. HEPA air purifiers are superior to other models in filtering the smallest particles. Air purifiers are only useful for removing dust from the air. They will not remove dust already deposited on floors, shelves, upholstery or rugs. Keep windows closed when using an air purifier.

Additional recommendations include:

- Keep outdoor dust from entering the home;
- Keep windows closed;
- Set the air conditioner to re-circulate air (closed vents), and clean or change the filter frequently;
- Remove shoes before entering the home for several days (once you first make sure there is no broken glass)
- Avoid sweeping or other outdoor maintenance.

For more information, call the Health Department's General Information Line at (212) 213 - 1844.

Go to [WTC Information page](#) || [NYC DOH Home Page](#) || [Health Topics](#) || [Public Information](#) || [NYC.gov Home Page](#) || [Mayor's Office](#) || [City Agencies](#) || [Services](#) || [News and Features](#) || [City Life](#) || [Contact Us](#) || [Search](#)

Asbestos and Dust

Asbestos was used in the construction of the World Trade Center. Measurements of asbestos fiber levels are being monitored to determine if there is any risk of exposure.

To prevent exposure to asbestos and to reduce any risk that might exist, the following protective measures are recommended:

- Persons working at the site should use N95 respiratory masks (TB masks) to prevent inhalation of asbestos fibers and goggles to prevent eye irritation.

Persons who will be going into the building or working in confined spaces should use at least an N100 mask for respiratory protection.

To the extent possible, gloves and coveralls should be worn and removed before going home. Boots or shoes should be covered, if possible, and rinsed prior to returning home.

- Other risks may include exposure to cyanide and acid gases; levels will be monitored at the site to determine if any risk exists.

- Emergency personnel (firefighters, EMS staff) should remove outer garments and shower immediately when returning to their firehouse/garage. Uniforms should be separated from other clothing and washed twice in ordinary detergent.

- Persons who were exposed to ash and soot should shower and wash their hair. Clothing should be washed twice in ordinary detergent, separated from other clothing.

- To reduce exposure to dust from building debris, the material should be wetted and covered with a tarp during transport and storage. After the truck is emptied, the truck bed, wheels and tires should be rinsed off.

New York City Department of Health
9/12/01, 2:30 am

EPA



FACT SHEET: RELEASE OF REPORTS RELATED TO THE WORLD TRADE CENTER DISASTER

Exposure and Human Health Evaluation of Airborne Pollution from the World Trade Center Disaster (DRAFT)

Toxicological Effects of Fine Particulate Matter Derived from the Destruction of the World Trade Center (FINAL)

ACTIONS:

The U.S. Environmental Protection Agency (EPA) has completed a draft report entitled, "Exposure and Human Health Evaluation of Airborne Pollution from the World Trade Center Disaster," and is soliciting comments from the public on this draft report during a 60-day comment period. In addition, the EPA has completed a final report, entitled "Toxicological Effects of Fine Particulate Matter Derived from the Destruction of the World Trade Center." Both of these documents are available to the public. A *Federal Register* notice, published December 27, 2002, announced: 1) the public availability of the external review draft and the start of the comment period; and 2) the availability of the final rodent respiratory studies report.

SUMMARY:

EPA has released for public review and comment a draft evaluation of exposure and human health impacts of the September 11, 2001, terrorist attack on the World Trade Center (WTC). The draft evaluation concludes that, with the exception of those exposed immediately following the collapse and perhaps during the next few days, people in the surrounding community are not likely to suffer from serious long or short term health effects. The draft report evaluates the measured outdoor levels of various air pollutants to which the public had been potentially exposed as a result of the collapse of the WTC. These data were evaluated in terms of available health benchmark concentrations and typical background concentrations for New York City or other urban areas. The draft report focuses on: particulate matter (PM), metals (lead, chromium and nickel compounds), polychlorinated biphenyls, dioxin-like compounds, asbestos, and volatile organic compounds.

The draft report includes a discussion of rodent respiratory toxicology studies, conducted by EPA scientists, that found that high doses of WTC dust could cause mild respiratory effects in mice. These studies exposed mice to fallen dust samples collected at or near the WTC site on September 12 and 13, 2001. The report, "Toxicological Effects of Fine Particulate Matter Derived from the Destruction of the World Trade Center," summarizes these studies. The purpose of these studies was to evaluate the toxicity of fine PM on the respiratory tract of mice and to compare well-studied PM reference samples, ranging from essentially inert to quite toxic, to those collected at the WTC site. These studies found that fine particles were mostly dominated by calcium containing compounds derived from WTC building materials and that a high dose of WTC fine PM could cause mild lung inflammation and air flow obstruction in mice. These findings suggest that a similarly high dose in people could cause short-term respiratory effects such as inflammation and cough. These studies have been accepted for publication in the peer-reviewed journal, *Environmental Health Perspectives*, and are expected to be published shortly.

It is important to note that the draft human health evaluation is undergoing public review, as well as external independent expert scientific peer review. These review processes are usual steps that the Agency takes to

insure full and open participation by interested parties. These steps also help the Agency to identify areas where a draft document could be improved to strengthen both clarity and completeness of the draft. Comments from the public and from the expert peer review will be used to improve the draft report before it is finalized.

BACKGROUND:

EPA responded immediately to the September 11, 2001, terrorist attack on the WTC. The Agency, along with many other federal, state and local agencies, was called upon to bring its technical and scientific expertise to the national emergency. EPA, other federal agencies, and New York City and New York State public health and environmental authorities initiated numerous air monitoring activities to better understand the ongoing impact of emissions from that disaster. Many EPA offices and programs quickly became involved with these activities, providing scientific, engineering, public health, and management expertise to help cope with the after effects of the collapse of the WTC. EPA Region 2, which includes the New York City metropolitan area in New York and New Jersey, is the Agency's lead office on these activities, including the important and complicated task of community outreach and communication. As part of these activities, Region 2 requested that ORD conduct a human health evaluation of exposure to air pollutants resulting from the WTC disaster.

DOCUMENT AVAILABILITY:

Draft Human Health Evaluation: The primary method for document availability will be via the Internet at <http://www.epa.gov/ncea/wtc.htm>. A limited number of CDs and paper copies are available from: Technical Information Staff (8623D), U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; Telephone: 202-564-3261; Facsimile: 202-565-0050; Email: nceadc.comment@epa.gov.

Final Rodent Respiratory Toxicology Report: The primary method for document availability will be via the Internet at <http://www.epa.gov/nheerl>. A limited number of paper copies will be available from EPA's National Service Center for Environmental Publications (NSCEP) in the near future. To obtain copies, please contact NSCEP by telephone (1-800-490-9198 or 513-489-8190), by facsimile (513-489-8695), or by mail (P.O. Box 42419, Cincinnati, OH 45242-0419). Please provide your name and mailing address and the title and EPA number of the document requested (*Toxicological Effects of Fine Particulate Matter Derived from the Destruction of the World Trade Center*. EPA/600/R-02/028, June 2002).

CONTACTS:

Draft Human Health Evaluation: Linda Tuxen, NCEA Communications, National Center for Environmental Assessment (8601D) Office of Research and Development, U.S. Environmental Protection Agency, Washington, DC; Tel: 202-564-3332; Email: tuxen.linda@epa.gov

Final Rodent Respiratory Toxicology Report: Debbie Janes, Public Affairs, Office of Research and Development (B34303), U.S. Environmental Protection Agency, Research Triangle Park, NC; Tel: 919-541-4577; Email: janes.deborah@epa.gov

Gilsenan, Michael (ex)

From: Callahan.Kathy@epamail.epa.gov
Sent: Monday, August 05, 2002 7:44 AM
To: michaelgi@dep.nyc.gov
Cc: basso.ray@epamail.epa.gov; laposta.dore@epamail.epa.gov
Subject: Fw: fact sheets for cleanup program



WTC.C&T.wpd



wtc.CAHVAC.wpd



wtc.PC&T.wpd

michael, this didn't seem to go through on saturday to you, at least i got an error message yesterday afternoon to that effect. so i am trying again. please forward to mark hoffer. and as i said below, if you have any questions, problems, i am here & can be tracked down, via beeper as needed. the correct beeper no. is 888-548-7957. thanks. touch base with you later. the access agreements should be to mark in about half an hour.

you should have gotten the scopes of work on friday night from eric wilson.

kc

Kathleen C. Callahan
 212-637-3116
 212-637-3115 (fax)

*Sent to
 Frank Schiano
 &
 Mark Hoffer*

----- Original Message -----

From: kathy Callahan
To: michaelgi@dep.nyc.gov
Cc: LaPosta.Dore@epamail.epa.gov ; kohlenberg.beverly@epa.gov
Sent: Saturday, August 03, 2002 6:00 PM
Subject: fact sheets for cleanup program

hi michael,

i am attaching the fact sheets that mark hoffer needs to look at, prior to the bid process starting. can you please send them to him **ASAP**. i (or one of our attorneys) will be forwarding the access agreement forms first thing on monday as well. call if there are any questions or concerns. beep me if there isn't someone around to track me down. (dore is on vacation this week, fyi.) my beeper number is 888-5498-7957. i'll get back to you right away. this is my priority on monday.

please send us copies of the bid documents when they are ready.

thanks. talk to you soon. kathy
 (See attached file: WTC.C&T.wpd)
 (See attached file: wtc.CAHVAC.wpd)
 (See attached file: wtc.PC&T.wpd)

WTC RESIDENTIAL DUST CLEANUP PROGRAM CLEANING & TESTING FACT SHEET

People living south of Canal, Allen and Pike Streets in lower Manhattan who are concerned that dust from the collapse of the World Trade Center may still be present in their residences may request assistance from EPA. Assistance offered includes the cleanup and testing of homes for airborne asbestos or testing only. The program is voluntary. While EPA will work with building owners and tenant groups to coordinate all cleaning within a building, occupants of each unit must specifically request cleanup assistance.

Cleanup work will be conducted by contractors and workers (the Cleanup Contractor) certified by New York State and New York City. Separate, third-party contractors, also licensed by New York State, will oversee the cleanup work and will conduct all testing (the Project Monitor). Further direct oversight will be provided by EPA personnel. All personnel involved in this program will carry appropriate photo identification.

The Project Monitor will contact residents requesting assistance to confirm and schedule cleanup and testing. The Project Monitor will have access to a translation service to assist with the process for those whose primary language is not English. There are three phases to the actual work: 1) Pre-cleaning inspection; 2) Cleaning, and 3) Testing.

Owners and managers of residential buildings and coop boards can request to have their building's common areas cleaned and HVAC system evaluated and cleaned, if necessary. After receiving the request, common areas such as the building lobby, hallways, stairways and elevator interiors will be cleaned. Other common areas, including laundry rooms, utility rooms, compactor rooms, and elevator shafts will be evaluated and cleaned as needed. (See separate fact sheet: Common Area and HVAC).

During a pre-cleaning inspection for an individual residence, the Project Monitor will meet with the occupant(s) to assess conditions, discuss procedures and testing options, determine any special concerns or needs, and answer questions. The Project Monitor will obtain written access and authorization, and will schedule the cleaning work. Residents will be given information about preparing for cleaning including the handling of valuable personal items, the presence of pets, etc. (See separate fact sheet: Preparing for Cleaning and Testing). The Project Monitor will discuss the level of cleanup required (see below) and resident's options for post-cleanup testing.

Damage to building as a result of the WTC collapse may have resulted in the growth of mold in apartments. As part of the Cleaning Program, the Project Monitor will contact the New York City Department of Health (NYC DOH) if mold is observed in a residence or residential building. The NYC DOH will then contact the building owner to provide recommendations on how to address the affected areas. Further information regarding mold can be found in the NYC DOH fact sheet entitled "Facts About Mold."



**Department of
Environmental
Protection**

59-17 Junction Boulevard
Corona, New York
11368-5107

**Joel A. Miele Sr., P.E.
Commissioner**



www.nyc.gov/dep

(718) DEP-HELP

<http://www.nyc.gov/html/doh/html/cpi/cpi.html>

If the Project Monitor identifies the presence of potential friable asbestos type insulation in areas requested to be cleaned, this will be reported to NYCDEP for evaluation and appropriate follow up action. Likewise, if the Project Monitor identifies potential peeling, flaking or chalking paint, the NYCDOH will be notified for evaluation and appropriate followup action.

Following the assessment, the Project Monitor will determine the appropriate cleanup approach. Most residences will be addressed under EPA's "Scope A" cleanup. Residences (typically unoccupied) where there are still significant amounts of WTC dust and/or debris will be dealt with under EPA's "Scope B" cleanup which adds precautions to require further worker protection and techniques to minimize spreading of possible contamination while removing the dust/debris. Where localized accumulations of WTC dust are found in a residence which otherwise has minimal dust (i.e., between windows, inside air conditioners), these areas will be addressed under a Scope B cleanup, wherein the areas containing the dust are isolated from the remainder of the residence prior to removal. Residents (or their representatives) may be present (but do not have to be) during Scope A cleanings but should be prepared for noise and disruption. Residents may not be present during Scope B cleanings, unless the Scope B cleanup applies to only parts of the residence. In most cases, cleaning operations should take no more than two days.

In a Scope B cleanup, the areas containing dust and/or debris are sealed off and exhaust fans equipped with HEPA filters are used to lower the air pressure within the sealed off area so that no dust escapes. Dust and debris are bagged and sealed for removal. Workers wear protective gear and residents may not be within the sealed off area. Scope B work can apply to an entire residence or to portions of a residence where remnants of bulk dust are discovered.

In a Scope A cleanup, all horizontal hard surfaces, including floors, ceilings, ledges, trims, furnishings, appliances, equipment, etc., will be HEPA vacuumed and wet wiped. Vertical and soft surfaces shall be HEPA vacuumed two times. Dry sweeping is prohibited. A detailed description of the minimum cleaning requirements is listed below. (Field experience may require modification of these procedures.):

- a. Terraces, balconies, exterior window sills, window wells and window guards that are accessible from the interior of the dwelling, will be cleaned.
- b. Interior windows, screens, window sills and window guards will be cleaned.
- c. Vacuuming will begin with the ceiling, continue down the walls and include the floor.
- d. Impermeable walls and floors will be wet wiped using disposable wipes, after consultation with and approval by owner. Wet wiping will not be conducted if it is determined that it would cause damage to the surface.
- e. Curtains, fabric window treatments, upholstery and other materials that cannot be cleaned by wet wiping shall be HEPA vacuumed two times. Fabric covered



**Department of
Environmental
Protection**

59-17 Junction Boulevard
Corona, New York
11368-5107

**Joel A. Miele Sr., P.E.
Commissioner**



www.nyc.gov/dep

(718) DEP-HELP

- furniture will be vacuumed using a stiff brush attachment.
- f. Carpets will be cleaned with a water extraction cleaner equipped with a motorized agitator brush. Water extraction cleaning will not be conducted if it is determined that it would cause damage to the carpet.
- g. Paperwork and books will be HEPA vacuumed.
- h. Electrical outlets will be vacuumed.
- i. Window air conditioners will be vacuumed then removed from their position and vacuumed internally. Filters will be HEPA vacuumed and reinstalled. Air conditioners will be reinstalled after cleaning.
- j. Intake/discharge registers of HVAC systems (if present) will be removed/cleaned. The first foot of duct work will also be vacuumed, then the register will be reinstalled and covered with plastic.
- k. Appliances such as refrigerators and stoves will be cleaned and moved. The floor footprint of the appliances will be cleaned and the appliance will be reinstalled in its original position.
- l. Refrigerator cooling tubes will be brushed and vacuumed.
- m. Stove exhaust fan filters will be cleaned.
- n. The first foot of all exhaust duct work (including stove, dryer and bathroom vents) will be vacuumed. Exhaust fans will be vacuumed and wiped.
- o. Closet floors will be vacuumed.
- p. Solid objects (electrical equipment, exercise equipment, etc.) will be wet wiped, moved to allow cleaning of the underlying surface and will be returned to their original location.
- q. Dishwasher toe plates will be removed and the floor beneath the appliance will be cleaned.
- r. Baseboard heaters will be cleaned. Protective covers on finned radiant heaters and baseboard heaters will be removed to expose heat elements. Fins are to be brushed and vacuumed to remove dust.
- s. All cleaning equipment will be vacuumed and/or wet wiped for use on the residence.

Note that cleaning clothing and accessories (handbags, shoes, etc.) is the responsibility of the resident. The Cleaning Contractor will *not* open and/or clean inside drawers, cabinets, breakfronts, and similar enclosed storage or display pieces, however, the exterior of these pieces will be cleaned.

The Project Monitor will oversee cleaning operations, and EPA staff will also visit residences to oversee work. When cleaning is completed, the Project Monitor will do a visual inspection. If dust is observed, the residence will be re-cleaned as necessary. Once the visual inspection finds the residence to be dust free, final air sampling will be authorized.

This final testing phase will take approximately eight hours and must be completed within one day (24 hours) of the completion of cleanup work. Residents have a choice between two forms

of airborne asbestos testing, modified-aggressive and aggressive. Modified-aggressive testing simulates the normal air movement you would expect in a room where a fan or air conditioner was running. In aggressive testing, a one-horsepower leaf blower is used to blast air into all corners of the residence before testing is begun. From that point on, the two tests are identical. Any air conditioners are turned on and 20-inch fans (one per 10,000 cubic feet of room space) are run at low speeds for the duration of the test. Depending on the number of rooms in a residence, from three to five air samplers are located in the residence and run for approximately eight hours. These samplers draw in a measured volume of room air and collect dust particles from the air on a filter. The collected dust is then examined in a laboratory for asbestos.

Residents may occupy their home during modified-aggressive testing but should be prepared for noise and disruption. Occupants with known allergies, asthma or other health concerns should consider contacting their health care provider to determine whether it is advisable to be present while cleaning and/or testing is underway. Residents must relocate during and for 48 hours after aggressive testing. The Red Cross has agreed to provide financial assistance to defray costs for relocation expenses. Information from the Red Cross will be provided as needed. Occupants will need to remove or secure objects, including pictures and artwork, that could be blown over or otherwise damaged.

The Project Monitor will conduct a post-cleaning inspection of the apartment with the resident at the completion of modified-aggressive sampling or upon re-entry after aggressive sampling. During this inspection the project monitor and the resident will determine whether cleaning/monitoring activities were completed and whether any property damage or loss has occurred. The resident will sign a Project Completion Form.

At a limited number of residences (approximately 250), the Project Monitor will conduct pre- and post-cleanup wipe sampling for dioxin, total metals and mercury. Results of this sampling will be shared with occupants of the individual residence tested.

EPA will notify residents and owners of the results of the post-cleanup airborne asbestos testing within one month. Residence-specific test results will not be made public.

Finally, your residence will be recleaned and retested if the post-cleanup testing finds levels of asbestos in excess of EPA's cleanup goal.

WTC RESIDENTIAL DUST CLEANUP PROGRAM COMMON AREA AND HVAC FACT SHEET

People living south of Canal, Allen and Pikes Streets in lower Manhattan who are concerned that dust from the collapse of the World Trade Center may still be present in their residences may request assistance from EPA. Assistance offered includes the evaluation and cleanup (if necessary) of the common areas and Heating, Ventilation and Air Conditioning systems (HVACs) of residential housing (*this fact sheet*) as well as the cleaning and/or testing of individual residential units (*See separate fact sheet: Cleaning & Testing*).

Cleanup work will be conducted by contractors and workers (the Cleanup Contractor) certified by New York State and New York City. Separate, third-party contractors, also licensed by New York State, will oversee the cleanup work and will conduct all testing (the Project Monitor). Further oversight will be provided by EPA personnel. All personnel involved in this program will carry appropriate photo identification.

Owners and managers of residential buildings and coop boards can request to have their building's common areas cleaned and HVAC system evaluated and cleaned, if necessary. If a tenant association makes this request, EPA will seek agreement by building owner or manager. The Agency encourages tenant associations to work to coordinate residents' requests within a given building.

After receiving the request, common areas such as the building lobby, hallways, stairways and elevator interiors will be cleaned. Other common areas including laundry rooms, utility rooms, compactor rooms, and elevator shafts will be evaluated and cleaned as needed.

Unless EPA approves otherwise (based on the circumstance of an individual building), no residential, common space or HVAC system will be cleaned until the exterior of the building has been cleaned. The New York City Department of Environmental Protection is cleaning building exteriors. EPA will then evaluate, and if necessary clean, an HVAC system upon agreement from the building owner or manager. Finally, EPA will clean residences and common spaces.

The Project Monitor will provide daily oversight of cleaning operations. EPA staff will also visit the buildings to oversee work. When cleaning is completed, the Project Monitor will do a visual inspection. If any dust is seen, the residence will be re-cleaned as necessary. Once the visual inspection finds the residence to be dust free, final air sampling will be authorized. Air samplers are run for approximately eight hours. These samplers draw in a measured volume of room air and collect dust particles from the air on a filter. The collected dust is then examined in a laboratory for asbestos.

EPA will notify building residents and owners of the results of the post-cleanup airborne asbestos testing as soon as possible. Our goal is to provide this in writing within one month.

WTC RESIDENTIAL DUST CLEANUP PROGRAM FACT SHEET PREPARING FOR CLEANING & TESTING

The Project Monitor will meet with the resident(s) to assess conditions, discuss procedures and testing options, determine any special concerns or needs, and answer questions. At this time, the resident(s) will also be asked to do the following:

Provide written access and authorization and schedule a date to conduct the cleaning work.

Inform the Project Monitor of any building rules (time restrictions, appropriate entrances to the building, elevator usage, etc.) that are applicable to cleaning and/or testing.

Choose either modified-aggressive or aggressive air monitoring. Residents must plan to relocate for 48 hours from the the start of air monitoring if aggressive air monitoring is selected. In addition, if your residence will be cleaned using Scope B procedures, you may also be required to relocate during the cleaning and testing process. The Red Cross has agreed to provide financial assistance to defray costs for relocation expenses. Information from the Red Cross will be provided as needed.

Make every effort to ensure the safety and security of fragile and valuable objects such as money, jewelry, silver, fine china, decorative objects and art works located in the home. Prior to the scheduled cleaning and/or testing date, valuable and/or fragile objects should be removed from the residence or secured in sealed containers for protection. Any valuable or fragile objects that cannot be moved or secured, or that require special handling, should be identified in writing and discussed with the Project Monitor prior to the start of the cleaning and/or testing in order to make provision for their safety and security. Residents must also state the estimated value of the objects listed.

Prepare a written list of items (eg., certain carpets, soft furnishings or wall coverings) that may be damaged by wet wiping or water extraction cleaning methods.

Provide for proper supervision of children to ensure they are not present in the work area.

Provide for relocation of pets from your home while the work is ongoing. Fish and pets in aquariums or terrariums need not be moved out of the home.

Notify the Project Monitor as early as possible, but no later than one business day before the scheduled date for the work in the residence, if it is necessary to cancel the appointment.

Sign the Project Completion Form upon conduct of a post cleaning and monitoring damage inspection with the Project Monitor to determine whether cleaning/monitoring activities were completed, and whether any property damage or loss has occurred.

Residents with known allergies, asthma or other respiratory health concerns should consider contacting their health care provider to determine whether it is advisable to be present while cleaning and/or testing is underway.

WTC RESIDENTIAL DUST CLEANUP PROGRAM CLEANING & TESTING FACT SHEET

People living south of Canal, Allen and Pike Streets in lower Manhattan who are concerned that dust from the collapse of the World Trade Center may still be present in their residences may request assistance from EPA. Assistance offered includes the cleanup and testing of homes for airborne asbestos or testing only. The program is voluntary. While EPA will work with building owners and tenant groups to coordinate all cleaning within a building, occupants of each unit must specifically request cleanup assistance.

Cleanup work will be conducted by contractors and workers (the Cleanup Contractor) certified by New York State and New York City. Separate, third-party contractors, also licensed by New York State, will oversee the cleanup work and will conduct all testing (the Project Monitor). Further direct oversight will be provided by EPA personnel. All personnel involved in this program will carry appropriate photo identification.

The Project Monitor will contact residents requesting assistance to confirm and schedule cleanup and testing. The Project Monitor will have access to a translation service to assist with the process for those whose primary language is not English. There are three phases to the actual work: 1) Pre-cleaning inspection; 2) Cleaning, and 3) Testing.

Owners and managers of residential buildings and coop boards can request to have their building's common areas cleaned and HVAC system evaluated and cleaned, if necessary. After receiving the request, common areas such as the building lobby, hallways, stairways and elevator interiors will be cleaned. Other common areas, including laundry rooms, utility rooms, compactor rooms, and elevator shafts will be evaluated and cleaned as needed. (See separate fact sheet: Common Area and HVAC).

During a pre-cleaning inspection for an individual residence, the Project Monitor will meet with the occupant(s) to assess conditions, discuss procedures and testing options, determine any special concerns or needs, and answer questions. The Project Monitor will obtain written access and authorization, and will schedule the cleaning work. Residents will be given information about preparing for cleaning including the handling of valuable personal items, the presence of pets, etc. (See separate fact sheet: Preparing for Cleaning and Testing). The Project Monitor will discuss the level of cleanup required (see below) and resident's options for post-cleanup testing.

Damage to building as a result of the WTC collapse may have resulted in the growth of mold in apartments. As part of the Cleaning Program, the Project Monitor will contact the New York City Department of Health (NYC DOH) if mold is observed in a residence or residential building. The NYC DOH will then contact the building owner to provide recommendations on how to address the affected areas. Further information regarding mold can be found in the NYC DOH fact sheet entitled "Facts About Mold."

<http://www.ci.nyc.ny.us/html/doh/html/epi/epimold.html>

If the Project Monitor identifies the presence of potential friable asbestos type insulation in areas requested to be cleaned, this will be reported to NYCDEP for evaluation and appropriate follow up action. Likewise, if the Project Monitor identifies potential peeling, flaking or chalking paint, the NYCDOH will be notified for evaluation and appropriate followup action.

Following the assessment, the Project Monitor will determine the appropriate cleanup approach. Most residences will be addressed under EPA's "Scope A" cleanup. Residences (typically unoccupied) where there are still significant amounts of WTC dust and/or debris will be dealt with under EPA's "Scope B" cleanup which adds precautions to require further worker protection and techniques to minimize spreading of possible contamination while removing the dust/debris. Where localized accumulations of WTC dust are found in a residence which otherwise has minimal dust (i.e., between windows, inside air conditioners), these areas will be addressed under a Scope B cleanup, wherein the areas containing the dust are isolated from the remainder of the residence prior to removal. Residents (or their representatives) may be present (but do not have to be) during Scope A cleanings but should be prepared for noise and disruption. Residents may not be present during Scope B cleanings, unless the Scope B cleanup applies to only parts of the residence. In most cases, cleaning operations should take no more than two days.

In a Scope B cleanup, the areas containing dust and/or debris are sealed off and exhaust fans equipped with HEPA filters are used to lower the air pressure within the sealed off area so that no dust escapes. Dust and debris are bagged and sealed for removal. Workers wear protective gear and residents may not be within the sealed off area. Scope B work can apply to an entire residence or to portions of a residence where remnants of bulk dust are discovered.

In a Scope A cleanup, all horizontal hard surfaces, including floors, ceilings, ledges, trims, furnishings, appliances, equipment, etc., will be HEPA vacuumed and wet wiped. Vertical and soft surfaces shall be HEPA vacuumed two times. Dry sweeping is prohibited. A detailed description of the minimum cleaning requirements is listed below. (Field experience may require modification of these procedures.):

- a. Terraces, balconies, exterior window sills, window wells and window guards that are accessible from the interior of the dwelling, will be cleaned.
- b. Interior windows, screens, window sills and window guards will be cleaned.
- c. Vacuuming will begin with the ceiling, continue down the walls and include the floor.
- d. Impermeable walls and floors will be wet wiped using disposable wipes, after consultation with and approval by owner. Wet wiping will not be conducted if it is determined that it would cause damage to the surface.
- e. Curtains, fabric window treatments, upholstery and other materials that cannot be cleaned by wet wiping shall be HEPA vacuumed two times. Fabric covered

- furniture will be vacuumed using a stiff brush attachment.
- f. Carpets will be cleaned with a water extraction cleaner equipped with a motorized agitator brush. Water extraction cleaning will not be conducted if it is determined that it would cause damage to the carpet.
- g. Paperwork and books will be HEPA vacuumed.
- h. Electrical outlets will be vacuumed.
- i. Window air conditioners will be vacuumed then removed from their position and vacuumed internally. Filters will be HEPA vacuumed and reinstalled. Air conditioners will be reinstalled after cleaning.
- j. Intake/discharge registers of HVAC systems (if present) will be removed/cleaned. The first foot of duct work will also be vacuumed, then the register will be reinstalled and covered with plastic.
- k. Appliances such as refrigerators and stoves will be cleaned and moved. The floor footprint of the appliances will be cleaned and the appliance will be reinstalled in its original position.
- l. Refrigerator cooling tubes will be brushed and vacuumed.
- m. Stove exhaust fan filters will be cleaned.
- n. The first foot of all exhaust duct work (including stove, dryer and bathroom vents) will be vacuumed. Exhaust fans will be vacuumed and wiped.
- o. Closet floors will be vacuumed.
- p. Solid objects (electrical equipment, exercise equipment, etc.) will be wet wiped, moved to allow cleaning of the underlying surface and will be returned to their original location.
- q. Dishwasher toe plates will be removed and the floor beneath the appliance will be cleaned.
- r. Baseboard heaters will be cleaned. Protective covers on finned radiant heaters and baseboard heaters will be removed to expose heat elements. Fins are to be brushed and vacuumed to remove dust.
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The Project Monitor will oversee cleaning operations, and EPA staff will also visit residences to oversee work. When cleaning is completed, the Project Monitor will do a visual inspection. If dust is observed, the residence will be re-cleaned as necessary. Once the visual inspection finds the residence to be dust free, final air sampling will be authorized.

This final testing phase will take approximately eight hours and must be completed within one day (24 hours) of the completion of cleanup work. Residents have a choice between two forms

of airborne asbestos testing, modified-aggressive and aggressive. Modified-aggressive testing simulates the normal air movement you would expect in a room where a fan or air conditioner was running. In aggressive testing, a one-horsepower leaf blower is used to blast air into all corners of the residence before testing is begun. From that point on, the two tests are identical. Any air conditioners are turned on and 20-inch fans (one per 10,000 cubic feet of room space) are run at low speeds for the duration of the test. Depending on the number of rooms in a residence, from three to five air samplers are located in the residence and run for approximately eight hours. These samplers draw in a measured volume of room air and collect dust particles from the air on a filter. The collected dust is then examined in a laboratory for asbestos.

Residents may occupy their home during modified-aggressive testing but should be prepared for noise and disruption. Occupants with known allergies, asthma or other health concerns should consider contacting their health care provider to determine whether it is advisable to be present while cleaning and/or testing is underway. Residents must relocate during and for 48 hours after aggressive testing. The Red Cross has agreed to provide financial assistance to defray costs for relocation expenses. Information from the Red Cross will be provided as needed. Occupants will need to remove or secure objects, including pictures and artwork, that could be blown over or otherwise damaged.

The Project Monitor will conduct a post-cleaning inspection of the apartment with the resident at the completion of modified-aggressive sampling or upon re-entry after aggressive sampling. During this inspection the project monitor and the resident will determine whether cleaning/monitoring activities were completed and whether any property damage or loss has occurred. The resident will sign a Project Completion Form.

At a limited number of residences (approximately 250), the Project Monitor will conduct pre- and post-cleanup wipe sampling for dioxin, total metals and mercury. Results of this sampling will be shared with occupants of the individual residence tested.

EPA will notify residents and owners of the results of the post-cleanup airborne asbestos testing within one month. Residence-specific test results will not be made public.

Finally, your residence will be recleaned and retested if the post-cleanup testing finds levels of asbestos in excess of EPA's cleanup goal.

WTC RESIDENTIAL DUST CLEANUP PROGRAM COMMON AREA AND HVAC FACT SHEET

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Owners and managers of residential buildings and coop boards can request to have their building's common areas cleaned and HVAC system evaluated and cleaned, if necessary. If a tenant association makes this request, EPA will seek agreement by building owner or manager. The Agency encourages tenant associations to work to coordinate residents' requests within a given building.

After receiving the request, common areas such as the building lobby, hallways, stairways and elevator interiors will be cleaned. Other common areas including laundry rooms, utility rooms, compactor rooms, and elevator shafts will be evaluated and cleaned as needed.

Unless EPA approves otherwise (based on the circumstance of an individual building), no residential, common space or HVAC system will be cleaned until the exterior of the building has been cleaned. The New York City Department of Environmental Protection is cleaning building exteriors. EPA will then evaluate, and if necessary clean, an HVAC system upon agreement from the building owner or manager. Finally, EPA will clean residences and common spaces.

The Project Monitor will provide daily oversight of cleaning operations. EPA staff will also visit the buildings to oversee work. When cleaning is completed, the Project Monitor will do a visual inspection. If any dust is seen, the residence will be re-cleaned as necessary. Once the visual inspection finds the residence to be dust free, final air sampling will be authorized. Air samplers are run for approximately eight hours. These samplers draw in a measured volume of room air and collect dust particles from the air on a filter. The collected dust is then examined in a laboratory for asbestos.

EPA will notify building residents and owners of the results of the post-cleanup airborne asbestos testing as soon as possible. Our goal is to provide this in writing within one month.

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The Project Monitor will meet with the resident(s) to assess conditions, discuss procedures and testing options, determine any special concerns or needs, and answer questions. At this time, the resident(s) will also be asked to do the following:

Provide written access and authorization and schedule a date to conduct the cleaning work.

Inform the Project Monitor of any building rules (time restrictions, appropriate entrances to the building, elevator usage, etc.) that are applicable to cleaning and/or testing.

Choose either modified-aggressive or aggressive air monitoring. Residents must plan to relocate for 48 hours from the the start of air monitoring if aggressive air monitoring is selected. In addition, if your residence will be cleaned using Scope B procedures, you may also be required to relocate during the cleaning and testing process. The Red Cross has agreed to provide financial assistance to defray costs for relocation expenses. Information from the Red Cross will be provided as needed.

Make every effort to ensure the safety and security of fragile and valuable objects such as money, jewelry, silver, fine china, decorative objects and art works located in the home. Prior to the scheduled cleaning and/or testing date, valuable and/or fragile objects should be removed from the residence or secured in sealed containers for protection. Any valuable or fragile objects that cannot be moved or secured, or that require special handling, should be identified in writing and discussed with the Project Monitor prior to the start of the cleaning and/or testing in order to make provision for their safety and security. Residents must also state the estimated value of the objects listed.

Prepare a written list of items (eg., certain carpets, soft furnishings or wall coverings) that may be damaged by wet wiping or water extraction cleaning methods.

Provide for proper supervision of children to ensure they are not present in the work area.

Provide for relocation of pets from your home while the work is ongoing. Fish and pets in aquariums or terrariums need not be moved out of the home.

Notify the Project Monitor as early as possible, but no later than one business day before the scheduled date for the work in the residence, if it is necessary to cancel the appointment.

Sign the Project Completion Form upon conduct of a post cleaning and monitoring damage inspection with the Project Monitor to determine whether cleaning/monitoring activities were completed, and whether any property damage or loss has occurred.

Residents with known allergies, asthma or other respiratory health concerns should consider contacting their health care provider to determine whether it is advisable to be present while cleaning and/or testing is underway.

Avaltroni, Robert

From: McIntyre, James [James.McIntyre@fema.gov]
Sent: Friday, August 09, 2002 11:11 AM
To: 'avaltronir@dep.nyc.gov'



wtc.CAHVAC.wpd



wtc.PC&T.wpd

Robert,

We were able to open the first document, but we could not open the two documents below. If you do not have them in a Microsoft Word format, would you please fax them to us.

Fax # 646-746-18

Thanks

Mac

<<wtc.CAHVAC.wpd>> <<wtc.PC&T.wpd>>



FAX Cover Sheet

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Solid & Hazardous Materials, Bureau of Solid Waste & Land Management

TO: Penny Theodorellys
FAX #: (718) 595-3744
RE: WCT Metal Recycling
DATE: September 28, 2001
Pages: 2, including this cover sheet.

COMMENTS: The attached is a draft guidance document that was developed with NYS Dept. of Labor. We anticipate being asked for this within the next few days. If you have any comments or questions please call me or Brian Maglienti, (518) 402-8660. Thank you Ed Dassatti.

FROM: Ed Dassatti, Director
Bureau of Solid Waste & Land Management
625 Broadway, Albany, NY 12233-7258
Phone: (518) 402-8660
Fax: (518) 402-8654
E-mail: cedassat@gw.dec.state.ny.us

**GUIDANCE FOR EMERGENCY MANAGEMENT OF ASBESTOS FROM THE WORLD
TRADE CENTER - NEW YORK STATE**

The following guidance should be followed to protect human health during this emergency when the requirements of New York State Department of Labor (NYSDOL) or New York City Department of Environmental Protection (NYCDEP) for the management of asbestos cannot be directly followed for materials and wastes from the World Trade Center.

Notification Requirements: Relief is granted for notification fees and 10-day notification requirements.

Removal: Asbestos must be completely wetted before, during and after removal to avoid hazardous air emissions. Dust-free conditions must be maintained at all times. Asbestos removal must be done in an isolated area where all removed asbestos is fully contained, with no runoff. All asbestos must be removed in these isolated areas so the surfaces are fully cleaned. Adhere to Federal NESHAPS standards. Contractors engaged in asbestos removal must comply with NYSDOL/NYCDEP licensing and certification requirements.

Packaging: Asbestos must be packaged in containers that will not leak any liquid or solid waste. Suitable containers are leak-proof, or 6-mil plastic lined, roll-off containers and similar dumpster containers that do not leak. Containers must be temporarily fully covered or tarped until moved from the site to disposal facility. 6-mil plastic in lined roll-offs and dumpsters must be sealed with tape before being fully covered for transport to prevent any asbestos from spilling or leaking from the container. All containers must be removed within 24 hours to solid waste management facilities permitted to accept asbestos.

Transportation: Vehicles that transport asbestos waste must have a 6NYCRR Part 364 Permit if individual loads exceed 500 pounds. Sealed containers must not be removed from vehicles until reaching a solid waste management facility permitted to accept asbestos.

Disposal: All asbestos must be disposed of at solid waste management facilities permitted to accept asbestos waste. If disposal location is in New York State, facility management should be contacted to coordinate delivery. Landfills that receive asbestos waste must adhere to 6NYCRR Part 360-2.17(p) requirements for handling of asbestos waste. Transfer stations that receive asbestos waste must adhere to 6NYCRR Part 360-11.4(m) requirements for transfer of asbestos waste.



CARPET REMOVAL PROTOCOL

Note: All work as outlined in this protocol is to be performed by a NYS DOL licensed asbestos abatement contractor using US EPA / NYC DEP certified asbestos abatement personnel.

1. Shut down the ventilation and air-conditioning (HVAC) system(s) for the room.
2. Remote personal/waste decontamination unit(s) will be constructed and located adjacent to the area.
3. All penetrations that can be reached using an 8 foot ladder (such as windows doorways, supply air diffusers, return air grilles etc.) shall be sealed with 2 layers of 6 mil plastic sheeting sealed with tape.
4. A thorough visual inspection will be performed by a third party consultant to verify that all required engineering controls are in place and work correctly.
5. Pre-clean and remove any furniture (that is not stationary) and associated floor surfaces twice using HEPA filtered vacuum equipment. After the furniture and associated floor surfaces have passed a thorough visual inspection, all removable objects shall be covered with two layers 6 mil plastic sheeting and sealed with tape, and the removable objects shall be removed.
6. All carpeted floor surfaces shall be saturated with an approval lock-down encapsulate and then covered with two layers 6 mil plastic sheeting sealed with tape.
7. The plastic covered carpet shall be continually misted with amended water while it is being cut into manageable sections and rolled up. When a section of carpet has been rolled up, it shall be misted with amended water and sealed with two layers 6 mils plastic sheeting. The sealed carpet section shall be transported out of the facility to an approved waste container for appropriate disposal.
8. After all carpeting has been removed, all surfaces shall be cleaned using wet methods and HEPA vacuum.
9. The two layers of 6 mil plastic sheeting covering all penetrations and stationary furniture shall remain in place until the area has undergone general cleaning and passed a visual inspection.

AIR MONITORING PROTOCOL

1. Inside work area air samples will be collected during cleaning and carpet removal phases of the project to evaluate any asbestos fiber release from the work area. These samples analyzed via TEM (AHERA PROTOCOL).
2. If the air samples collected during cleaning/removal activities exceed AHERA clearance criteria, the area will be re-cleaned, and aggressive air monitoring will be performed and samples will be analyzed by TEM.

WTC RESIDENTIAL DUST CLEANUP PROGRAM FACT SHEET PREPARING FOR CLEANING & TESTING

The Project Monitor will meet with the resident(s) to assess conditions, discuss procedures and testing options, determine any special concerns or needs, and answer questions. At this time, the resident(s) will also be asked to do the following:

Provide written access and authorization and schedule a date to conduct the cleaning work.

Inform the Project Monitor of any building rules (time restrictions, appropriate entrances to the building, elevator usage, etc.) that are applicable to cleaning and/or testing.

Choose either modified-aggressive or aggressive air monitoring. Residents must plan to relocate for 48 hours from the the start of air monitoring if aggressive air monitoring is selected. In addition, if your residence will be cleaned using Scope B procedures, you may also be required to relocate during the cleaning and testing process. The Red Cross has agreed to provide financial assistance to defray costs for relocation expenses. Information from the Red Cross will be provided as needed.

Make every effort to ensure the safety and security of fragile and valuable objects such as money, jewelry, silver, fine china, decorative objects and art works located in the home. Prior to the scheduled cleaning and/or testing date, valuable and/or fragile objects should be removed from the residence or secured in sealed containers for protection. Any valuable or fragile objects that cannot be moved or secured, or that require special handling, should be identified in writing and discussed with the Project Monitor prior to the start of the cleaning and/or testing in order to make provision for their safety and security. Residents must also state the estimated value of the objects listed.

Prepare a written list of items (eg., certain carpets, soft furnishings or wall coverings) that may be damaged by wet wiping or water extraction cleaning methods.

Provide for proper supervision of children to ensure they are not present in the work area.

Provide for relocation of pets from your home while the work is ongoing. Fish and pets in aquariums or terrariums need not be moved out of the home.

Notify the Project Monitor as early as possible, but no later than one business day before the scheduled date for the work in the residence, if it is necessary to cancel the appointment.

Sign the Project Completion Form upon conduct of a post cleaning and monitoring damage inspection with the Project Monitor to determine whether cleaning/monitoring activities were completed, and whether any property damage or loss has occurred.

Residents with known allergies, asthma or other respiratory health concerns should consider contacting their health care provider to determine whether it is advisable to be present while cleaning and/or testing is underway.

WTC Waste Hauling

Asbestos Containing Waste

1. Asbestos containing material or debris must be completely wetted before, during and after the removal to avoid hazardous air emissions. Dust generation shall be minimized at all times.
2. Asbestos containing materials must be packaged in containers that will not leak any liquid or solid waste. Suitable containers are leak-proof, or 6-mil plastic lined, roll-off containers and similar dumpster containers that do not leak. The containers must be fully covered for transport to prevent any asbestos containing materials from spilling or leaking from the container.
3. Vehicles shall be driven on top of a waterproof, embanked plastic tarp. The tarp shall be sufficient to collect wash water resulting from the cleaning. The water collected from the tank shall be collected and filtered prior to discharge into the sewer system.
4. The vehicles shall be washed with a low-pressure hose and hand washing until external visible debris is removed. Each vehicle should be wiped with a clean rag.
5. Personnel shall wear disposable coveralls, gloves, and at a minimum a half-face respirator equipped with HEPA filters. All protective gear shall be decontaminated as appropriate or disposed as ACM waste.

*NYS DEC and NJ DEP have developed draft emergency management plans and guidances for the waste transfer. These items are consistent with the drafts.

Construction Waste

1. Waste must be packaged in containers that will not leak any liquid or solid waste. Suitable containers are leak-proof, or 6-mil plastic lined, containers that do not leak. The containers must be fully covered ^{or} _^ for transport to prevent any spilling or leaking from the containers. *tarped*
2. Loaded vehicles shall be driven to a staging area where visible external debris is removed using a low-pressure wash and hand washing.
3. As a precaution personnel can wear disposable coveralls, gloves, and at a minimum a half-face respirator equipped with HEPA filters.

New York City Mayor's Office of Emergency Management

Access Policy: Building Owners/Managers, Contractors, Residents – October 15, 2001

**Access Policy: Building Owners/Managers, Contractors,
and Residents as of October 15, 2001**

Procedure for Building Owners/Managers:

- Building owners/managers, with personal photo identification along with proof of ownership of building (e.g. deed, ground lease) or right to occupy same, or other proof of authority to act on the owner's behalf, must meet with the contractor(s) at the NYPD access van located at Broadway and Fulton Streets.
- Building owners/managers and contractor(s) will be interviewed by an NYPD official in charge at which time they will present all required ID and building credentials.
- Owner or managing agent will be required to sign a police release form issued by NYPD whereby owner assumes liability for the building, its contents, and occupants.
- Upon NYPD's satisfaction of proof of ownership/management authority, and all required photo ID's, NYPD may, in its sole discretion make arrangements with the owner and contractor(s) to provide access at the established checkpoint.

Procedure for Contractors:

- Contractors will be granted access provided the owner or superintendent of the building accompanies them to where work is to be done. In addition, contractors must show photo ID and provide a list of all workers and social security numbers that will be working on site.
- All workers must have photo ID and ID establishing its employment by the contractor (including SS#). Upon NYPD satisfaction of identification, the contractor and owner or superintendent will be escorted to the site.
- The contractor is responsible for assembling the entire work crew at the established checkpoint at the appointed time.
- NYPD may allow vehicle access for work crews and equipment on West Street on a case-by-case basis.
- This Work Crew access Procedure will be repeated each day access is required.
- Contractors and their work crews are to remain at the specified work location. Any deviations will result in removal from the area and any further requests for access will be denied.

Procedure for Contractor(s) Work Crews, Vehicles & Equipment:

- The contractor is responsible for assembling all vehicles requiring access for the workday at South and Pike Streets.
- Contractor's crew chief will then go to the access van at Broadway and Fulton Streets and notify the NYPD inspector in charge that all vehicles are ready and waiting at South Street.
- The crew chief will then ride with NYPD to South and Pike Streets where all vehicles will be inspected and all personnel ID will be checked.

New York City Mayor's Office of Emergency Management

Access Policy: Building Owners/Managers, Contractors, Residents -- October 15, 2001

- Upon NYPD's inspection and approval of vehicles and personnel, NYPD will escort the contractor's vehicles to a checkpoint at the perimeter of the restricted area.
- Any other personnel joining the crew at that time will have to present proper ID at that point.
- Contractor(s) may be required to undergo another overall vehicle and ID check at that time.
- Once NYPD is satisfied and clears the vehicles and personnel for admission into the restricted area, NYPD will escort the contractor vehicle(s) to the worksite.
- This procedure must be followed each and every time the contractor requires vehicular access to the site.

Procedure for Residents:

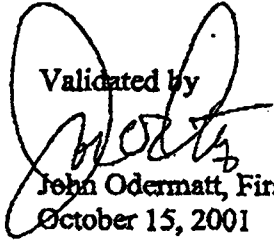
- Residents must show proof of residency and photo ID to access their apartments. Upon NYPD satisfaction of residency, each resident will be escorted by NYPD officers to their apartments and allowed 15 minutes to gather belongings and then residents must vacate the premises.
- Initial vehicle access is required by NYPD at South Street and Catherine.
- Access to this area is located at Battery Place and West Street.

Access to the Battery Park City Area:

- Battery Park City Zone from Battery Place to Liberty Street, West Street to Hudson River. Within this area, Liberty Street to Rector Place is a frozen zone and access will be granted on a case-by-case basis. BPC North residents should enter at Chambers & West and walk down the foot path and BPC South residents should enter at Battery Park Place and West.
- Residents and Contractors can access buildings South of Rector Place.
- NYC Parks Police are permitted to enter Battery Park City & the North Cove area only. Access to the Red Zone is prohibited.

Economic Development Hotline (718) 403-2220

Validated by


John Odermatt, First Deputy Director
October 15, 2001

.22pm From-

T-706 P.01/02 F-345

9/22/01

X-INT

To: Andy ConfrunDine, USEPA
(732) 321-4425 (FAX) (cc-sen)
(732) 689-0017/906-6827 (Tel)

(2 pages
with cover)

From: Rose Marabetti, NYC DEP
(212) 482-1320 (at 110 Maiden Lane Walk-In)
[Can EDC phone] [Fax (212) 509-7544]
(718) 595-4541 (office, Queens)

Re: "NYPD Guide for Contractors + Building
Personnel" to obtain Building Access

Mr. ConfrunDine -

I am faxing you the NYPD Guide for Building
Personnel + Contractors to enter buildings. This was
developed by Mr. NYPD, EDC, with input from
NYC DEP.

If you have any questions, please call the
(212) 482-1320 number, or contact EDC, also
at the Walk-In Center, at (212) 509-7549/7537/
or 7486 and ask for Scott Butler.

I trust all will go well! Rose Marabetti

cc: AC Michael Gilman, BEC/DEP (718) 595-4543 (Tel)
(718) 595-4422 (Fax)

Sep-22-01 01:22pm From-

T-706 P.02/02 F-345

NYPD Guide for Contractors and Building Personnel**Initial Procedure to Obtain Access:**

Building owner with proof of ownership of building or right to occupy same (e.g. deed, ground lease) or building manager with management agent registration or other proof of authority to act on the owner's behalf must meet with contractor and together go to NYPD access van at Broadway and Fulton Streets. Owner, manager and contractor must also have personal photo identification. All must speak to NYPD inspector in charge, present personal ID and building credentials. Owner or managing agent will be required to sign a police release form issued by NYPD whereby owner assumes liability for the building, its contents and occupants. Upon NYPD satisfaction of proof of ownership/management authority and all photo ID, NYPD may, in its sole discretion, make arrangements with the owner and contractor and NYPD to establish a checkpoint and time for access for contractor and its crew.

Work Crew Access Procedure:

The contractor is responsible for assembling the entire work crew at the established checkpoint at the appointed time.

Each crew member must have its own photo ID, and ID establishing its employment by the contractor (including social security number).

Once NYPD has inspected and approved all ID, NYPD will escort the contractor and the entire crew to the building.

This Work Crew Access Procedure will be repeated each day access is required.

Procedure for Contractor Vehicles for Work Crews and Equipment:

The contractor is responsible for assembling all vehicles requiring access for the workday at South and Pike Streets. Contractor's crew chief will then go to the access van at Broadway and Fulton Streets and notify the NYPD inspector in charge that all vehicles are ready and waiting at South Street.

The crew chief will then ride with NYPD to South and Pike Streets where all vehicles will be inspected and all personnel ID will be checked. Upon NYPD's satisfactory inspection and approval of all vehicles and personnel, NYPD will escort the contractor's vehicles to a checkpoint at the perimeter of the restricted area. Any other personnel joining the crew at that time will have to present proper ID at that point. Contractor may be required to undergo another overall vehicle and ID check at that time. Once NYPD is satisfied and clears the vehicles and personnel for admission into the restricted area, NYPD will escort the contractor vehicle(s) to the worksite. This procedure must be followed each and every time the contractor requires vehicular access to the site.

CONTRACTORS MUST HAVE SUCCESSFULLY COMPLETED NYPD'S INITIAL PROCEDURE TO OBTAIN ACCESS BEFORE WORK CREW AND VEHICLE ACCESS WILL BE PERMITTED!

9/22/01

Sep-01 01:22pm From:

T-708 P.02/02 F-345

NYPD Guide for Contractors and Building Personnel**Initial Procedure to Obtain Access**

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Work Crew Access Procedure

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Each crew member must have his own photo ID and ID establishing his employment by the contractor (including social security numbers).

Once NYPD has inspected and approved the crew, NYPD will escort the contractor and the entire crew to the building.

This Work Crew Access Procedure will be repeated each day access is required.

Procedure for Contractor Vehicles Access to the Work Site

The contractor is responsible for obtaining access for the work site at South and Pike Streets. Contractor's crew chief will bring the access van to Broadway and Fulton Streets and notify the NYPD inspector in charge that all vehicles are ready and waiting at South Street.

The crew chief will then make with NYPD at South and Pike Streets where all vehicles will be inspected and all personnel ID will be checked. Upon satisfactory inspection and approval of all vehicles and personnel, NYPD will escort the contractor's vehicles to a checkpoint at the perimeter of the restricted area. Any other personnel joining the crew at that time will have to present proper ID at that time. Contractor may be required to undergo another overall vehicle and ID check at that time. Once NYPD is satisfied and clears the vehicles and personnel for admission into the restricted area, NYPD will escort the contractor vehicle(s) to the work site. This procedure will be followed each and every time the contractor requires vehicular access to the site.

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(2 pages
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 [Can E+L plan] [FAX (212) 509-7544]
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 or 7486 and ask for Scott Butler.

I trust all will go well.

Rose Marchetti

cc: Ac. Michael Gikowen, BFC/DEP (718) 595-4543 (tel)
 (718) 595-4422 (fax)



Medical and Public Health Issues Raised by the Attack on the World Trade Center

Risk of Bioterrorism

According to the New York City Department of Health (NYCDOH), the successful use of a biological weapon is unlikely because a high level of technical sophistication would be required to develop, maintain, transport and disperse biological agents.

Germ Warfare Surveillance

The NYCDOH has been actively monitoring for evidence of a bioterrorist attack. Hospitals throughout New York City are monitoring for illness syndromes that would likely occur if a biological pathogen were released in New York City. Any clustering increase of a particular disease syndrome would be investigated immediately by Epidemic Intelligence Service officers from the Centers for Disease Control and Prevention (CDC). To date, no unusual disease clusters or manifestations suggestive of bioterrorism have been identified.

City Agency Response in the Event of a Bioterrorist Attack

If a bioterrorist attack took place, the NYCDOH would rapidly notify the medical community with recommendations on diagnosis, treatment and preventative measures. In addition, the CDC has developed a large national stockpile of pharmaceuticals, including antibiotics that are effective against the most likely bioterrorist substances. This reserve of pharmaceuticals would be swiftly delivered in the event of a bioterrorist attack. In fact, as a precautionary measure, these pharmaceuticals were available in New York City within hours of the attack on September 11th.

Prophylactic Antibiotics and Gas Masks

Preventive measures, such as prophylactic antibiotics, are not recommended by the NYCDOH and CDC. In the absence of the release of a biologic agent, prophylactic antibiotics have no benefit. Furthermore, the inappropriate use of antibiotics leads to an increased resistance to antibiotics and their use may result in serious complications such as allergic reactions and harmful interactions with other medications. In addition, anthrax and small pox vaccinations are not indicated.

Gas masks are not designed to provide protection against biological agents. They only protect against chemical agents if worn at the time of release. Gas masks are impractical as they require the changing of cartridges every few hours in order to remain effective. The improper use of gas masks can result in injury or even death, especially among people with underlying heart or lung disease.

Chemical Disasters

The release of a harmful chemical would most likely be limited to a specific area, within a short time span, and the NYCDOH would be able to identify the chemical quickly. If a chemical incident were to occur, the safest action would be to avoid the area affected and, if the chemical was released outdoors, to close all windows. Once a person is away from the scene of the incident, the likelihood of developing a serious illness is minimal.

Steps People Should Take in the Event of a Bioterrorist or Chemical Attack

1. Remain calm.
2. Realize that if you are unharmed, you will most likely remain unharmed.
3. Stay away from the location of the incident.
4. If the chemical or bacteria was released outdoors, close all the windows.
5. Put on the radio/television in order to stay informed.

Environmental Concerns Regarding Lower Manhattan

Air monitoring in the immediate vicinity of the World Trade Center has been conducted by various city, state and federal agencies. They have found that, though asbestos was used in the construction of the World Trade Center, asbestos levels are low. Based on these results, short-term health effects from exposure to asbestos are not expected. There are no tests that can be performed to determine if exposure has occurred or to predict whether pulmonary disease will occur in the future. At a minimum, anyone who needs to enter the secured area within one block of the World Trade Center should wear a hard hat, eye protection, sturdy shoes or work boots, long sleeve shirts and long pants. A National Institute of Occupational Safety and Health-approved dust mask should be worn, especially in dusty conditions.

Increased particulate matter and dust released during the days since the attack may cause

eye and/or respiratory irritation, particularly for those with an underlying pulmonary disease. Individuals with a history of heart and lung disease, who are in areas where smoke or dust is visible, are advised to remain indoors with the windows shut. Air conditioners should be put on "recirculate" mode or turned off. Persons who experience difficulty breathing or chest pain should seek medical care immediately.

Environmental testing is ongoing to monitor levels of asbestos, dust particulates and other potentially hazardous materials within the affected site and in other off-site locations. In addition, issues related to the environment, food and water safety, rodent control, radiation levels and the health and safety of workers in the area around the World Trade Center site are continuously being monitored by the NYCDOH.

There is no threat to the health of the general public from decomposing human remains at the disaster site. Workers at the site are taking special precautions.

Water Supply

New York City water is normally among the best in the world. The City's large water supply, and the steps taken during processing, make it extremely difficult to contaminate. However, at this time, City, State and Federal agencies are carefully monitoring the water supply and it is likely that any problems will be rapidly detected. Results to date indicate that the water supply is safe.

Acute Stress Disorders

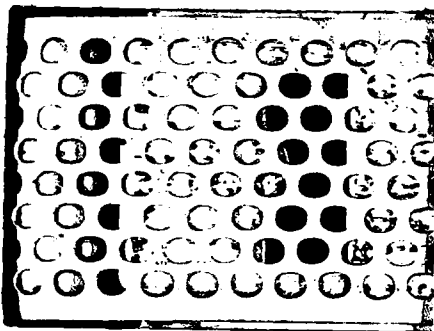
All New Yorkers, especially those directly affected by the disaster, those providing care to the victims and their families and those working in the relief effort, may experience emotional distress following the events of September 11th. The following American Red Cross and Mental Health Hotlines can provide direct access to services:

American Red Cross	(212)787-1000
English LifeNet	(800)543-3638
Spanish LifeNet	(877)298-3373
Chinese LifeNet	(877)990-8585

New York Methodist Hospital

New York Methodist Hospital has held several routine disaster drills over the past few years to prepare for the event of a chemical incident. In addition, the Hospital is in contact with City agencies and the Greater New York Hospital Association, which have been actively preparing New York City Hospitals to respond to bioterrorism and chemical warfare.

prepared by New York Methodist Hospital



MICHAEL GILSENAN, ASSISTANT COMMISSIONER
BUREAU OF ENVIRONMENTAL COMPLIANCE
 59-17 Junction Boulevard, 11th Floor
 Corona, New York 11368-5107
 (718) 595-4543
 (718) 595 45 4 (fax)

Date: 9/24/01

Log: _____

To: Diana Chapin

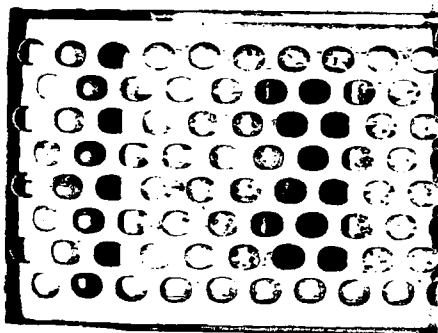
Re: REBNY

- | | |
|---|--|
| ☐ Urgent | ☐ Per our conversation |
| ☐ For your information | ☐ Draft response for my signature |
| ☐ For appropriate action | ☐ Draft response for the Commissioner's signature |
| ☐ For comment | ☐ Respond/copy me |

Comments: Deborah Beck asked for
our assistance in putting together
an advisory for Air sampling for
Asbestos prior to re-occupancy. Her
draft is attached along with
our revised draft. Please review
before we and let us know if
we should proceed. Thanks

cc: C Sturcken

Mike M
 9/24/01





**Department of
Environmental
Protection**

59-17 Junction Boulevard
Corona, New York
11368-5107

Air Sampling Advisory for Asbestos

*The following advisory was prepared to assist
building owners/tenants with the performance of air sampling for asbestos.*

**Joel A. Miele Sr., P.E.
Commissioner**

**Robert C. Avaltroni
Deputy Commissioner**

**Bureau of
Environmental Compliance**
Tel (718) 595-4418
Fax (718) 595-4422

Persons who perform air sampling must possess valid New York State Asbestos Project Air Sampling Technician Certificates. Air sampling analysis must be performed by a laboratory with ELAP accreditation.

A minimum of five representative samples should be collected. In addition to these 5 samples, one representative area sample should be collected for every 5,000 square feet above 25,000 square feet of floor space. The area must be dry before sampling.

The re-occupancy or clearance air monitoring is considered satisfactory when every PCM analysis sample is less than or equal to 0.01 f/cc or every TEM analysis sample is less than 70 s/mm².

PCM samples exceeding the 0.01 f/cc may be analyzed with TEM analysis to determine whether the measured fibers are asbestos fibers. Additional clean-up activities are necessary for re-occupancy if the levels are exceeded.

For additional information regarding air sampling, please refer to the Asbestos Rules. A copy is posted on the Department's web page.

If you have any questions, please call the Asbestos Control Program or contact the Department of Environmental Protection's complaint center at (718) DEP-HELP (337-4357). Help Center operators will refer your call to Asbestos Control Program staff.



(718) DEP-HELP

REBNY

REAL ESTATE BOARD OF NEW YORK

FAX COVER PAGE

To: <i>Krish / DEP</i>	From: Deborah P. Beck
Fax Number: <i>718-595-3744</i>	Company: Real Estate Board of New York
Date <i>9/21/01</i> Total Pages: <i>2</i>	For Information Call: 212 532-3129
Subject: <i>Air Testing WTC</i>	Fax Number: 212 779-8774

Please see attached.

212-355-2751

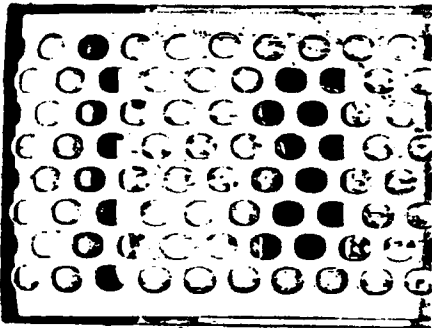
*cell
917-886-6468*

If you have not received all the pages that are indicated, or are having a problem with the reception of the materials, please contact our office at (212) 616-5232.

Draft Text

Memorandum from Department of Environmental Protection of the City of New York to owners of buildings closed as a result of the World Trade Center tragedy regarding steps to be taken to test air quality prior to re-occupancy.

1. Take 5 samples per floor using PCM analysis to determine the content of the fiber in the air.
2. If the air-monitoring sample cassette reading is less than or equal to 0.01 f/cc the air quality will be satisfactory and re-occupancy can proceed.
3. If the air-monitoring sample cassette reading is higher than 0.01 f/cc, the sample cassette should be analyzed using TEM to determine if the fiber contains asbestos.
4. If TEM analysis shows asbestos fiber levels greater than 70 structures/sq. millimeter it becomes an asbestos abatement project.
5. For abatement projects, follow the NYCDEP regulations in effect.



MICHAEL GILSENAN, ASSISTANT COMMISSIONER
BUREAU OF ENVIRONMENTAL COMPLIANCE
 59-17 Junction Boulevard, 11th Floor
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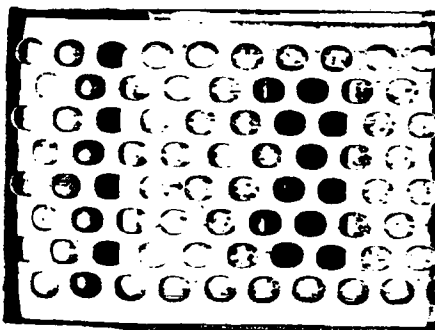
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mike M
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**Department of
Environmental
Protection**

59-17 Junction Boulevard
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Draft Text

Memorandum from Department of Environmental Protection of the City of New York to owners of buildings closed as a result of the World Trade Center tragedy regarding steps to be taken to test air quality prior to re-occupancy.

1. Take 5 samples per floor using PCM analysis to determine the content of the fiber in the air.
2. If the air-monitoring sample cassette reading is less than or equal to 0.01 f/cc the air quality will be satisfactory and re-occupancy can proceed.
3. If the air-monitoring sample cassette reading is higher than 0.01 f/cc, the sample cassette should be analyzed using TEM to determine if the fiber contains asbestos.
4. If TEM analysis shows asbestos fiber levels greater than 70 structures/sq. millimeter it becomes an asbestos abatement project.
5. For abatement projects, follow the NYCDEP regulations in effect.



**Department of
Environmental
Protection**

59-17 Junction Boulevard
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Environmental Compliance**
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Air Sampling Advisory for Asbestos

*The following advisory was prepared to assist
building owners/tenants with the performance of air sampling for asbestos.*

Persons who perform air sampling must possess valid New York State Asbestos Project Air Sampling Technician Certificates. Air sampling analysis must be performed by a laboratory with ELAP accreditation.

A minimum of five representative samples should be collected. In addition to these 5 samples, one representative area sample should be collected for every 5,000 square feet above 25,000 square feet of floor space. The area must be dry before sampling.

The re-occupancy or clearance air monitoring is considered satisfactory when every PCM analysis sample is less than or equal to 0.01 f/cc or every TEM analysis sample is less than 70 s/mm².

PCM samples exceeding the 0.01 f/cc should be analyzed with TEM analysis to determine whether the measured fibers are asbestos fibers. Additional clean-up activities are necessary for re-occupancy if the levels are exceeded.

For additional information regarding air sampling, please refer to the Asbestos Rules. A copy is posted on the Department's web page.

If you have any questions, please call the Asbestos Control Program or contact the Department of Environmental Protection's complaint center at (718) DEP-HELP (337-4357). Help Center operators will refer your call to Asbestos Control Program staff.



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*Just for
Real Estate Board*

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