

Summer 2008



**Upcoming Events:**

**EHSO Meeting**

September 11, 2008  
 BMCC  
 12:00 pm to 2:00 pm

**NYCER Meeting**

September 23, 2008  
 12:00 pm to 2:00 pm

**Inside this issue:**

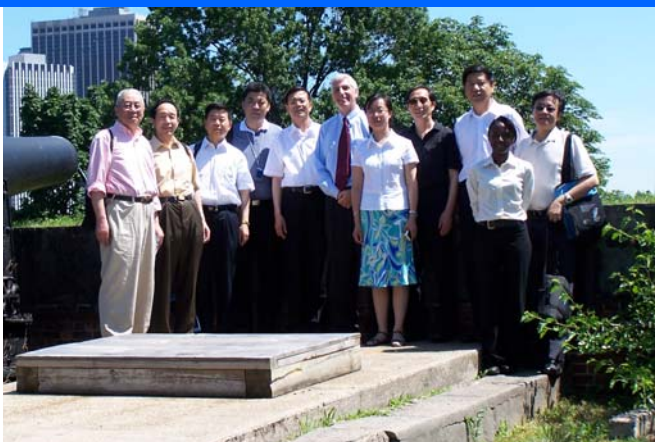
- 1 12th Annual Sino-American Conference
- 2 Promote Green and Health
- 3 Green and Health Stair Prompt
- 4 Specific Hazards for Lab Fume Hoods
- 4 Financial Reporting on Pollution Remediation
- 4 EHSRM News
- 4 Contributing Authors
- 5 New Fire Code Enacted
- 5 September is...

# CUNY EHS News

## 12th Annual Sino-American Conference - Governor's Island and Bronx River

*by Brian Cabezas*

The Sino-American Conference is a bi-annual exchange program between CUNY administrators and faculty and their counterparts in colleges in China. For the last conference in 2006, CUNY administrators and faculty visited China. This year, from June 8th to June 16th, CUNY had the privilege of hosting more than 30 delegates from various universities in China's Shanxi province who were on an educational and cultural exchange program. The large group of Chinese visitors was divided into a number of subgroups focused on various issues. The Environmental, Health, Safety and Risk Management



Chinese delegates and Office of EHSRM at Governor's Island

(EHSRM) Office hosted the Environment and Sustainability group for one day, with the keynote event including a presentation and tour of Governor's Island. The Environment and Sustainability delegates also

visited the Bronx River and were given an on-site tour of a remediated section of the river by the Bronx River Alliance. As part of the burgeoning Bronx River Greenway, the Concrete Plant Park features a waterfront promenade, boat put-in, benches and shade structures. Anne-Marie Runfola of the Bronx River Alliance and members of Youth Ministries for Peace and Justice were on hand to show us the progress made on the Greenway. The Chinese delegates also visited Washington, DC and Niagara Falls before departing.



Chinese delegates, Bronx River Alliance and Office of EHSRM at the Concrete Plant Park

The 13th Conference is slated for 2010 when CUNY administrators will revisit China.

# Opportunities to Simultaneously Promote Green and Health through the PlaNYC Challenge

by Karen K. Lee and Sarah Wolf

## NYC Department of Health and Mental Hygiene

In 19th century New York City, infectious diseases dominated as the main causes of mortality.[1] There was tremendous overcrowding combined with inadequate systems for sewer, garbage, and fresh water. The pervasive filth and polluted water supplies led to the spread of diseases such as tuberculosis, and epidemics of cholera and yellow fever. Design and environmental responses made the difference in eradicating these conditions: the establishment of our water system in 1842; the building of Central Park in 1857 (which was hailed as the working man's lungs); the Department of Street Sweeping in 1881; the Tenement House Act banning the construction of dark, airless buildings in 1901; construction of the subway in 1904, helping to disperse the population from overcrowded lower Manhattan; and the zoning ordinance of 1916 requiring buildings setback, allowing light and air into the streets.[1-4] Whereas infectious diseases were the major causes of death in 1880, by 1940 they accounted for only 11 percent of deaths.[1, 5]

Over the last century, chronic diseases have replaced infectious diseases as the predominant cause of death. In New York City, chronic diseases—including heart disease and stroke, cancers, diabetes—are responsible for 75 percent of deaths.[6] The main risk factors responsible for chronic diseases are tobacco and obesity caused by poor diet and physical inactivity.[7] Obesity and with it type 2 diabetes are epidemic in NYC and are the two health conditions getting worse. The majority of NYC adults and 43% of elementary school children are overweight or obese.[8, 9]

Excessive calories (energy) are consumed through poor diet, and insufficient energy is expended because of our lack of physical activity. Many daily life activities use less energy than in previous years: sedentary jobs have largely replaced manual labor, cars have replaced walking or biking, elevators and escalators have replaced stair use, and televisions, computers and video games have replaced active leisure time activity. At the same time, we are using excessive amounts of external energy from cars, esca-

lators, elevators, televisions and other sources that contribute to the global environmental crisis. Elevators routinely account for about 5% of a building's energy use;[10] although relatively a small proportion of energy use in any one building, cumulatively over a building-dense city like NYC, this adds up. A 20HP escalator operating 24 hours a day, 7 days a week will use about 28,000 kWh of electricity a year, generating roughly 43,000 pounds of CO<sub>2</sub> per year, or the equivalent of about 4 cars.[11] Similarly, many bottled and canned beverages and non-fresh foods contribute to high caloric consumption as well as environmental deterioration through fuel use in production and transportation as well as waste generation.[12]

As with infectious epidemics of the past, current design solutions are needed that concomitantly address chronic diseases and the global environmental crisis. PlaNYC is Mayor Bloomberg's proposed strategy to address expected population growth in NYC and to make NYC more sustainable by addressing transportation, water, land, and housing, and by reducing NYC's carbon footprint.[13] Universities in NYC have signed on to the PlaNYC Challenge, presenting an opportunity to simultaneously improve both the environment and the health of staff and students.

Many components of building, street and neighborhood design that can improve sustainability through reduction in electricity or fossil fuel use and carbon emissions also increase physical activity and healthy food and beverage access:

- Promoting stair use rather than elevator and escalator use through the following evidence-based measures:
  - Using stair prompts (signs that promote stair use) at elevators and escalators[14]
  - Increasing access to stairs[15]
  - Increasing visibility of stairs (e.g. automated door closing devices and/or fire-rated glass on stair doors)[16]
  - Improving the aesthetics of stairwells through the addition of music and art [17-19]
  - Where feasible (e.g. during renovations and new constructions), improv-

ing placement of stairs so they are more prominent than elevators[16]

- Providing supports for biking, including availability of secure bicycle parking and shower facilities;
- Increasing access to places for recreational physical activity;[20]
- Increasing access to tap water drinking facilities; and
- Increasing access to locally grown fruits and vegetables.

The New York City Department of Health and Mental Hygiene (DOHMH) together with other agencies, are working on such design solutions to embed opportunities for active living and healthy food access into the daily lives of New Yorkers. DOHMH, and the Mayor's GreenNYC Office also recently released a new stair prompt for posting at elevators and escalators to encourage New Yorkers to "Burn Calories, Not Electricity. Take the Stairs!" (stair prompt available on following page). These signs are available for free to all building owners and managers, including universities, by calling 311. Studies show that the simple placement of such signs at elevators and escalators can increase stair use by over 50%. [14] And just 2 minutes of stair climbing a day can burn enough calories to prevent the average weight gain of 1 pound a year in U.S. adults.[15]

## References

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(continued on page 5)

# Burn Calories, Not Electricity



## Take the Stairs!

Walking up the stairs just 2 minutes a day helps prevent weight gain. It also helps the environment.

Learn more at [www.nyc.gov](http://www.nyc.gov) or call 311.

Michael R. Bloomberg  
Mayor



## Specific Hazards for Lab Fume Hoods

by David Wilson  
O'Brien & Gere

Fume hoods provide an engineering exposure control for many forms of biological and chemical substances used in laboratory and manufacturing operations. Two specific hazards for in-hood use -- perchloric acid and radioisotopes -- present unique concerns. Therefore, hood interior surfaces and exhaust ventilation ductwork associated with perchloric acid and radioisotopes require specific design and maintenance actions.

### Perchloric Acid

Perchloric acid is a powerful oxidizing agent that reacts with certain organic substances to form shock and heat sensitive compounds. When a laboratory procedure results in evaporation of perchloric acid, crystalline compound deposits may form within the hood and exhaust ductwork. These deposits are shock sensitive and may explode violently when disturbed. Laboratory procedures that evaporate perchloric acid should only be conducted if a hood is specifically designed and labeled for perchloric acid. The following actions are recommended for operations where perchloric acid may be heated.

- Use a dedicated exhaust system and do not attach the perchloric acid hood to a non-perchloric acid hood system.
- The hood and ductwork should be acid resistant, with watertight seams and internal construction minimizing dust accumulation points.
- A water spray system should be installed in the hood and ductwork for periodic washing that flushes all internal surfaces.
- Label the hood to identify perchloric acid use and water wash requirements.
- Label the exhaust fan to identify perchloric acid use and explosion hazard potential.
- When deconstructing a perchloric acid exhaust ventilation system, remove all surface deposits and test for perchlorates prior to using mechanical force demolition.

An example of a perchloric acid salts build-up due to lack of hood preventative maintenance is documented by [The American Industrial Hygiene Association Laboratory Health and Safety Committee](#) and provides additional information on minimizing the risks associated with perchloric acid.

### Radioisotopes

Radioisotopes can pose an inhalation and/or general body exposure hazard dependent upon the physical state and energy level of the substance. A fume hood can control the inhalation hazard, and when used with in hood shielding devices, the hood can provide exposure control. The following actions can help minimize the risks associated with hoods containing a radioisotope.

- Attach a radioactive materials label on the hood front exterior.
- Have smooth and non-porous interior hood surfaces.
- Place disposable work surface coverings with waterproof backing where spills may occur.
- Provide adequate room for in hood shielding devices.
- Conduct periodic testing for surface radioactive contamination.
- Install a pre-filter and a HEPA/activated carbon filter to capture airborne radioactive substances prior to outdoor air discharge.
- Post a radioactive materials label on the roof exhaust system.

## EHSRM News

The Environmental, Health, Safety and Risk Management Office created a newsletter dedicated to Risk Management issues entitled "The CUNY Risk Review." Please refer to that newsletter for all risk management related issues. Both The CUNY EHS Newsletter and The CUNY Risk Review will be posted on the EHSRM website, <http://www.cuny.edu/ehs> or <http://www.cuny.edu/risk>. Minutes for the Environmental Health and Safety Council and the Risk Management Council meetings and up-to-date news may all be found at the website.

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## Financial Reporting on Pollution Remediation

*This article is an excerpt of a presentation by Thomas Zhou at the July ESHO Council meeting.*

The Governmental Accounting Standards Board (GASB) issued Statement No. 49, "Accounting and Financial Reporting for Pollution Remediation Obligations," in November 2006. This new accounting rule identifies the circumstances under which the public institution would be required to report pollution and contamination liabilities.

GASB 49 only requires that the reporting entity discloses information if there is a known pol-

luted or contaminated site and if any of five obligating events occur: pollution poses an imminent danger to the public and the entity has little or no discretion to avoid fixing the problem; the entity has violated a pollution prevention related permit or license; the entity is deemed responsible for cleaning up pollution or paying all or some of the cost of clean up; the entity is named or evidence indicates it will be named in a lawsuit to participate in remediation; and the entity begins to clean up pollution or conduct related remediation activities or has legally obligated itself to do so.

If any of these five obligating events has occurred and the potential costs for the clean up can be estimated, then the entity would report liabilities and expenses in the financial statement.

At CUNY, each college was asked to complete a questionnaire related to GASB 49 to ensure that all financial reporting obligations are accounted for. For more information on GASB 49, contact Thomas Zhou, Director of Financial Reporting and Analysis in the University Controller's Office, [Thomas.zhou@mail.cuny.edu](mailto:Thomas.zhou@mail.cuny.edu).

## New Fire Code Enacted

*This article is based on information taken from the FDNY website.*

NYC's new Fire Code, Local

Law No. 26, 2008, took effect on July 1, 2008. All materials, operations and facilities regulated by the Fire Code are subject to the new Fire Code. To

view the new Fire Code and read Frequently Asked Questions, visit <http://www.nyc.gov/fdny>.

## September is...

### **National Preparedness Month**

September 2008 is the fifth annual National Preparedness Month (NPM). NPM is sponsored by the U.S. Department of Homeland Security's Ready Campaign and is created to increase awareness about emergency preparation. Here are some suggestions for NPM campus activities: distribute preparedness information; include preparedness information in your newsletters, websites, and emails; post the [CUNY NPM sign](#); and host a preparedness activity such as a blood drive or First Aid, CPR, AED and/or CERT training courses. For more information, visit

<http://www.ready.gov/america/npm08/intro.html>.

### **Campus Fire Safety Month**

September 2008 is the fourth annual National Campus Fire Safety Month. The 2008 campaign is being co-sponsored by Campus Firewatch, the Ohio Fire Safety coalition and the Congressional Fire Services Institute. The month is designed to raise awareness of fire prevention and what to do if a fire breaks out. For more information, visit <http://campusfiresafetymonth.org/index.html>



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## Opportunities to Promote Green and Health (References Continued)

(continued from page 2)

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