



NYC Department of Environmental Protection
Bureau of Water & Sewer Operations, Environmental Health & Safety (EHS)

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Environmental Health & Safety News for BWSO!



In order to be in compliance with NYC Local Law 86 (LL86), the facility was designed and constructed to the highest "green" standards for new building construction."

– BWSO EHS Staff



BUREAU OF WATER & SEWER OPERATIONS
ENVIRONMENTAL HEALTH & SAFETY DIVISION

Newly Constructed BWSO Facility is LEED Certified!

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Do you know about the ergonomic jackhammer pilot?



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Take the Bite Out of Mosquitoes with a Few Easy Steps

The new and improved BWSO Brooklyn Repair facility, located on Remsen Avenue, will be more than your run of the mill Field Operations repair yard. In order to be in compliance with NYC Local Law 86 (LL86), the facility, which is currently nearing the end of phase 2 of construction, was designed and constructed to the highest "green" standards for new building construction. LL86 was passed in 2005 with the goals of reducing waste, making efficient use of resources and building sustainably. To achieve those goals, LL86 requires that the capital projects that utilize city funds be designed and built to the standards of the Leadership in Energy and Environmental Design (LEED) green building rating systems developed by the U.S. Green Building Council (USGBC).

LEED was developed by USGBC in March 2000, and presents a framework for certifying practical and measurable green building design, construction, operations and maintenance solutions. Continued on Page 3

Mosquitoes and other biting insects can be more than just a nuisance; they can carry diseases such as encephalitis, dengue fever, west Nile virus, malaria, rift valley fever and yellow fever. According to the NYC Department of Health and Mental Hygiene (DOHMH), mosquitoes lay their eggs in standing or slow-moving water; weeds, tall grass, and bushes provide an outdoor home for adult mosquitoes. While everyone should be aware of the risk of transmission of these diseases, BWSO personnel who work in areas with standing water should be especially conscientious of this risk. The DOHMH attempts to control the number of mosquitoes in our area by eliminating large areas of standing water and applying larvicides to areas identified as breeding grounds. DOHMH efforts may reduce the number of mosquitoes; however, they will not all be eliminated, so we must protect ourselves, especially while we are in the field.



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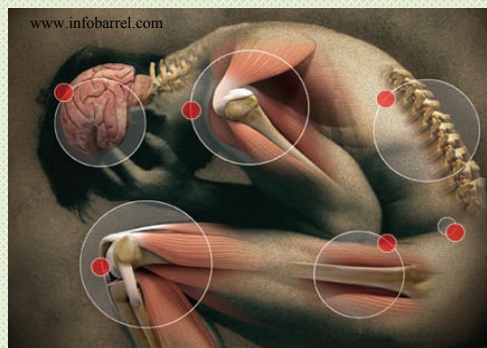


WIN A SUBWAY'S GIFT CARD!
TAKE QUIZ ON PAGE 3

Prevent Overexertion Injuries at Work

In the United States, overexertion is recognized as the third leading cause of injury within the workplace. An estimated 3.5 million people are treated for injuries that are related to overexertion every year, which accounts for 14% of all non-occupational injuries and 27% of all occupational injuries. Overexertion is generally defined as working the body or a body part too strenuously beyond its limits, resulting in damage to the muscles, tendons, ligaments, cartilage, joints, or peripheral nerves.

In 2000, injuries related to overexertion resulted in over \$7 billion in lifetime medical costs. In 2007, overexertion was the second leading cause of emergency room visits for people within the age group of 25-64 and the third leading cause of emergency room visits within the age group of 10-24. Sprains and strains that come about as a result of overexertion cost employers billions of dollars in lost productivity. Back strains are typically the most common form of injury that results from overexertion in the workplace.



Overexertion injury has consistently been ranked as the number one category of all BWSO workplace injuries since EHS started to track and analyze them. This type of injury represents almost 29% of all reported cases during 2010. Employees within the DEP Field Operations division are most susceptible to overexertion injuries, representing 76% of all reported overexertion injuries for the same period of surveillance. Overexertion injuries are primarily caused by activities such as pulling, lifting, pushing, holding or carrying an object, or using a tool that is exceedingly heavy. More specifically, using a heavy tool such as a jackhammer, sledgehammer or pry bar is the leading cause of overexertion injuries. The second leading cause is loading/unloading operations.

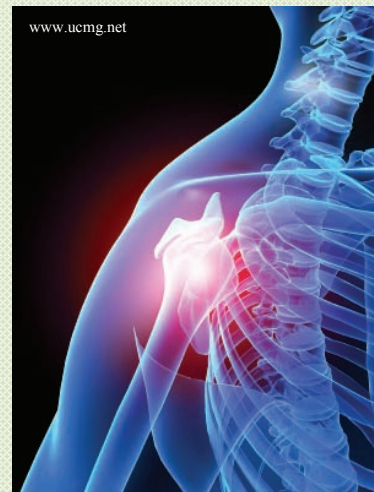
BWSO EHS has helped to decrease the number of overexertion injuries that occur within the field by 8% in 2010. This result was achieved by developing standard operating procedures (SOPs) and task-specific guidelines for handling heavy equipment. However, no task-specific guideline or training will help avoid overexertion injuries if employees do not follow safe work practices.

Here are some simple rules to help avoid overexertion injuries:

- Stretch your muscles or warm up lightly before you lift something, move something heavy, or perform a strenuous activity.
- Lift a heavier object by holding the object close to your body and bending your legs to

move it up and down.

- Avoid bending, reaching or twisting when you lift things.
- Ask for help if you feel it is necessary.
- Take breaks when necessary and stop if you feel your body can't handle the strain.



References:

National Business Group on Health (September, 2010) Overexertion Injuries. *Factsheet* - www.wbgh.org/preventive/factsheets/overexertion.pdf and Chaffin, D. (2009). The evolving role of biomechanics in prevention of overexertion injuries. *Ergonomics*, 52(1), 3-14. Retrieved from EBSCOhost.

Take the Bite Out of Mosquitoes with a Few Easy Steps – Continued from Page 1

The best way to protect against biting insects such as mosquitoes is to cover any exposed skin. The Centers for Disease Control and Prevention (CDC) suggests wearing tucked-in shirts with long sleeves and tucking pants into socks. When additional protection is required, pesticides such as bug repellent may be used; however, any such use must comply with both DEP policy and state regulations.

The New York State Department of Environmental Conservation (NYSDEC) sets restrictions on who can apply pesticides and where they can be applied. The NYSDEC requires the person applying pesticides outside of residential applications to hold a pesticide applicator certification. Since a majority of our employees do not hold pesticide applicator certifications, pesticides including those found in retail stores for home use cannot be used while at work.

Two exemptions from the above regulations are available to DEP personnel. First, employees may:

- Apply insect repellent on their person to provide protection against insect bites when appropriate. This includes the use of common bug repellents, used per the instructions on the product, which can be obtained through the General Storehouse (GS-1) or through other standard purchasing mechanisms.

Secondly, DEP personnel can:

- Carry a can of pesticide when performing outdoor work, but only for emergency use.

While working outdoors, employees may encounter unexpected situations that arise when stinging insects present an immediate hazard to the individual. In those instances, employees are permitted to use general pesticides for their own personal protection from nesting stinging insects. This exemption does not apply to mosquitoes, but for emergency situations involving stinging insects, such as the disturbance of a bee hive in the proximity of workers.

Biting insects such as mosquitoes have the potential to transmit diseases to those they bite. Due to the potential exposure of BWSO personnel to areas with mosquitoes, care should be taken to limit the amount of exposure to such insects. When working in areas with anticipated presence of mosquitoes, employees should wear appropriate clothing. A bug repellent can be applied directly to clothing and exposed skin as directed by the product. For more information, refer to the DEP Pesticide Management policy.



References:

www.cdc.gov/ncidod/diseases/list_mosquitoborne
www.nyc.gov/html/doh/html/wmv/vnvaql6.shtml



“Hey Atlas! Lift with your legs!”

UPCOMING TRAINING: June – July

1. EHS Awareness
2. Grade D Initial Training
3. Work Zone Safety

Questions?
Contact Nelson Leon at (718) 595-5544

Newly Constructed BWSO Facility is LEED Certified!

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It promotes sustainable building and development practices like recycling as much construction debris as possible, using geothermal climate control within a building, and supplementing water for its plumbing systems with rainwater harvesting. Each LEED design element and building system is tracked through a rating system. For example, using recycled steel for a building frame work will be worth a certain number of points. LEED points are awarded on a 100-point scale, and credits are weighed to reflect their potential environmental impacts. The more points, the higher the LEED rating for the project.



“Rainwater harvesting systems provide distributed stormwater runoff containment while simultaneously storing water which can be used for flushing toilets, washing clothes, washing cars and pressure washing.”

One LEED requirement that’s being implemented at the Brooklyn Repair facility is a Potable Water Use Reduction Requirement. It requires a 20 to 30% potable water use reduction below the U.S. Environmental Protection Agency (USEPA) standards for buildings or spaces that replace or install domestic plumbing systems with construction costs over half a million dollars. At Remsen, this will be accomplished with a rainwater harvesting system. Rainwater harvesting systems provide distributed stormwater runoff containment while simultaneously storing water which can be used for flushing toilets, washing clothes, washing cars and pressure washing. With the appropriate filtration, you can utilize the rainwater for almost anything.

The new Brooklyn Repairs facility is an example of how environmentally conscious and sustainable building isn’t simply a “feel good” fad. By carefully considering how to best use a space and reduce the resources needed to run it, a significant amount of resources and money can be saved in the long run!

References: www.usgbc.org and www.kisscathcart.com

Stay Cool This Summer— Don’t Let the Heat Stress You

As we head into the heat of summer, it’s time to start thinking about heat stress. Heat stress occurs in a hot environment when the body can no longer dissipate heat efficiently. Exposure to such high temperatures can cause illness, and even death. The most serious heat disorder is heat stroke. Other illnesses include heat exhaustion, heat cramps, and heat rashes. Heat can also increase the risk of worker injuries as it may result in sweaty palms, fogged-up safety glasses/goggles, and dizziness. Burns may also occur as a result of accidental contact with hot surfaces or steam. Workers at greater risk of heat stress include those who are 65 years of age or older, are overweight, have heart disease or high blood pressure, or take medications that may be affected by extreme heat.

To protect yourself from heat stress, here are a few tips:

- Know the signs/symptoms of heat illnesses; monitor yourself; use a buddy system.
- Block out direct sun and other heat sources.
- Perform the heaviest work during the coolest part of the day.
- Where appropriate, encourage the use of mechanical aids.
- Take frequent rest breaks and/or rotate duties to allow people to cool down.
 - Take breaks in the shade or a cool area when possible.
- Drink plenty of fluids to make up for bodily fluid lost through sweating.
 - Avoid beverages containing caffeine or alcohol.
- Wear light-colored, loose-fitting, breathable clothing such as cotton.
- Be aware of poor physical conditions.

When a worker is ill from the heat, below is a list of steps to be taken:

- Call a supervisor for help.
- Have someone stay with the worker until help arrives.
- Move the worker to a cooler/shaded area.
- Provide cool drinking water (about a cup every 15 minutes), if able to drink.
- Loosen and remove any heavy clothing.
- Fan and mist the worker with water; apply ice (ice bags or ice towels).

**If conditions do not improve within a few minutes, call 911 for emergency assistance.*

Ergonomic Jackhammers

Bureau EHS is pleased to announce that GS-1 recently purchased two ergonomic jackhammers to be piloted by Field Operations Repair employees. These jackhammers are equipped with spring dampened handles that help reduce vibration exposure to the operator. Essentially, the handles have a little bit of give, making the vibration that the tool is giving off stop at the handles, thus reducing impact to the operator. Bureau EHS will train selected Repair employees on how to properly and safely use the jackhammer prior to distributing them in the field. The jackhammers will be piloted for a period of one month by each Repair facility. Employee feedback, in the form of a questionnaire, will assist in determining the effectiveness of the tool in reducing vibration hazards as well as in meeting operational needs.

TAKE THIS QUIZ: SUBMIT CORRECT ANSWERS FOR A CHANCE TO WIN A FREE GIFT CARD

BE SURE TO INCLUDE YOUR FULL NAME AND WORK ADDRESS. FAX: (718) 595-5541 AND/OR EMAIL: BWSOEHS_suggestions@dep.nyc.gov

1. Which NYS agency regulates pesticides?

- A) NYS Department of Health
- B) NYS HAZMAT
- C) NYS Department of Environmental Conservation
- D) NYS Department of Environmental Protection

2. Which of the following statements regarding LEED certified projects is false?

- A) They must comply with environmental laws.
- B) They must house at least 100 people upon completion.
- C) They must begin submitting energy and water data to the U.S. Green Building Council upon building occupancy.
- D) None of the above

3. All of the following are risk factors that can cause overexertion injuries except:

- A) Heavy lifting
- B) Pushing
- C) Pulling
- D) Carpal Tunnel Syndrome

Answers for April 2011 Newsletter Quiz: 1) B 2) B 3) E



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*We'd love to hear
from you!*

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Smarck Salomon— Construction Project Manager Emergency Construction



Q: Where are you from?

A: I am from Haiti. I came to the U.S. in April 1984.

Q: Where did you attend school and what did you study?

A: I attended school in Haiti where I received my bachelor's degree in Civil Engineering. I also took several graduate courses in Construction Management at the Stevens Institute of Technology in New Jersey.

Q: Prior to working at DEP, where did you work?

A: I worked at different construction companies in Haiti, where I was involved with the construction of health centers, industrial buildings and harbors.

Q: What did you learn from your prior experiences?

A: Being in the field since the beginning of my career helped me to utilize what I learned in school. With this knowledge it is easier for me to make decisions.

Q: What is your current job title and your responsibilities/role at DEP?

A: My current job title is Construction Project Manager. I supervise various sewer construction projects throughout the five boroughs of NYC, resolve conflicts between contractors and residents, and exercise independent judgment and action. I also provide items for payment. My crew, comprised of 10-15 construction laborers, performs emergency construction repairs which can range from a small spot repair to a large project that involves the removal and replacement of sewers for a couple of blocks. All sewer repair locations are first investigated by the Maintenance Division. Field Operations goes out in the field, investigates the problem, draws a sketch on what needs to be done and then submits it to Emergency Construction to resolve the issue.

Q: What types of EHS duties have you participated in?

A: I deal with confined space a lot. I make sure that the men under my supervision use the tripod and harness for safety. Before entering a confined space, I make sure the manhole is well ventilated and they use gas meters to ensure there is enough oxygen. When a contractor's crew excavates deep holes to replace a sewer pipe, I make sure that there is adequate sheeting and the area is secured before leaving the job site. When work zones are needed, I make sure the crew follows all safety regulations while working on city streets. Also, I always wear my personal protective equipment (PPE)— hard hat, vest and boots. And, I make sure the workers I supervise are properly dressed with PPE as well.

Smarck Salomon began his career at NYC DEP in June 1987. He worked at Sewer Analysis for 14 years and moved to Emergency Construction in September 2001. Smarck supervises various sewer construction projects throughout New York City (NYC), resolves conflicts between contractors and residents, and exercises independent judgment and action. He also provides all necessary items for payment. Smarck graduated with a bachelor's degree in Civil Engineering. In his spare time, he enjoys reading the Bible and books related to the Bible. Also, being one of Jehovah's Witnesses, he enjoys going out to do volunteer work to share the words of the Bible with the people in his community.

Q: What do you enjoy the most about your job?

A: I do not have too much stress working in Emergency Construction. I know what I'm doing and I am a responsible person. Also, I enjoy being able to exercise independent judgment and action.

Q: What was the most memorable experience you have encountered during a job?

A: My most challenging job I encountered was when I had to find 14 manholes that were buried underneath construction debris, garbage, bushes and trees in Sound View Park in the Bronx. Some manholes were buried in 19 feet of dirt. With my engineering background and experience, and the help of a topographic transit (an instrument that is used to locate lines and angles) I was able to find them all. Every day I spent time on this project was a challenge for me because I had people I had to direct in their job of uncovering the manholes I located. As I got results, I became more confident.

Q: Who do you admire the most and why?

A: I admire my former Supervisor Paul Donnellan. I could never forget the day when Paul and Ed Coleman asked for my resume because they wanted to promote me from Associate Engineer Technician II to Assistant Project Coordinator. Most of my colleagues were Assistant Project Coordinators or a similar title. Paul and Ed felt that I was not being fairly compensated since I was doing the same workload as my colleagues. I always remembered this because I never asked them for a promotion; they took the initiative. I will keep this in my heart forever.

Q: What do you plan to do when you retire?

A: I want to return to my hometown. Being one of Jehovah's Witnesses, I want to be out in the field performing Christian ministry fulltime where I will share the good news of the Bible with others.

Q: What do you consider is your greatest achievement at DEP?

A: My greatest achievement is having a very good working knowledge (from maintenance to construction) of perhaps the largest sewer system (over 7,400 miles) in the world.

Q: Do you have any final words of wisdom or advice you would like to share/ what was the best advice given to you?

A: Treat others as you would like to be treated. Be responsible in whatever you're doing no matter if someone is watching you or not; respect everybody no matter who he is; and be concerned for the safety of others. The best advice given to me was from one my Supervisors when I first started working in Emergency Construction— "solve all problems in the field." I try to solve all problems myself; I do not call my boss unless it is absolutely necessary. As long as I have good reasons to make a decision, I make it!