

The Conduit: EH&S NEWS FOR BWSO

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

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Flushing, New York 11373-5108



Picture taken by Lal Sanju, NYC DEP BWSO

*“Jerome Park Reservoir, located in Kingsbridge Heights, Bronx, was recently in the midst of major repair work that began in August 2007.”
—BWSO EH&S Staff*

Picture: Crane used to maneuver new pipe sections into place at Jerome Park Reservoir.



BUREAU OF WATER & SEWER OPERATIONS
ENVIRONMENTAL HEALTH & SAFETY DIVISION

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EMERGENCY REPAIR AT JEROME PARK RESERVOIR

BWSO, Environmental Health and Safety Staff

February 2008-

Jerome Park Reservoir, located in Kingsbridge Heights, Bronx, was recently in the midst of major repair work that began in August 2007. In addition to the ongoing renovation work on Gatehouse 5, an unexpected and crucially important project had to be carried out in order to enable the reservoir to get back online. It became evident in the early stages of bringing the system on-line, that the 175 ft. long by 11 ft. diameter masonry conduit that connects Gate House 5 and New Croton Aqueduct Shaft 21 under the reservoir floor had become compromised. It had to be replaced. Considering that this work would involve a large scale excavation, the health and safety of all personnel involved became a priority for this project.

Before work began, several meetings took place between the chosen contractor, Halcyon Construction Corporation, and BWSO Project Managers, Engineers and EH&S Personnel. The guidelines for the important Site-Specific Health & Safety Plan (HASP) were established during these meetings. The contractor, as always,

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Back Pain in the Workplace

By BWSO Environmental Health and Safety Staff

February 2008-

Whether it's dull and annoying or screaming for attention, back pain can make it hard to concentrate on your job.

Many job tasks—such as lifting, climbing and pulling—may place significant demands on your back.

Even routine office work can worsen back pain if you fall into risky habits. Other contributing causes often are: faulty posture, overuse of certain muscles and joints, stress or fatigue, poor general health, lack of physical fitness, loss of flexibility, and previous trauma.

Lifting the Right Way

There are right ways and wrong ways to lift and carry loads. When



actually lifting, bend knees and get as close to the load as possible. Keep the back straight and use the legs to do the heavy work. Avoid twisting when lifting, carrying or lowering the load. While carrying the load, keep it as close to the mid body (torso) as possible. When finished, take a few seconds to straighten and stretch the back.

Posture is Important

Good posture is important for good health. Standing in one place for extended periods of time also tends to cause back pain. Static (unmoving) postures for long periods of time are also bad for back health; they do not allow your body to realign itself. So, whether you're sitting in a chair or standing in a line, change positions frequently, stretch or take a short walk around your work area. After returning, use an alternate posture for just a few moments.

Good posture is good prevention. To have good posture, your back, muscles, and joints need to be in

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“There are right ways and wrong ways to lift and carry loads.”

—BWSO EH&S Staff



Picture from massrelay.com

WIN FREE GIFT CARD! SEE PAGE 2.

Who Keeps NYC's Drinking Water Safe? You!

Assuring the delivery of safe drinking water is critical to the public health and well-being of all New Yorkers. Working in the water industry is rewarding since you are providing a critical service to the community; after all, we cannot live without water. Ensuring the delivery of safe and healthy water to New York City is one of the Bureau's primary missions. You, our water system operators, play a huge role in this process!

When consumers turn on their taps, most do not realize the work involved, the complexity of the system or the numerous New York State programs and requirements involved in regulating water quality and distribution. To ensure that public health is protected, the New York State Department of Health (NYSDOH) requires all water operators who make process control and system integrity decisions about water quality or quantity to obtain a water plant operator certification. There are minimum educational and experience requirements depending on the various certification grade levels. All levels now require a high school or GED diploma, training courses and on-the-job experience.

The Bureau of Water & Sewer Operations provides its employees with the opportunity to obtain a water system operator certification. This is accomplished through in-house training or, in other cases, vendor services or home-study courses. Once the initial certification is obtained, certified water plant operators must fulfill additional continuing education requirements over a three year period for certification renewal. In an effort to assist BWSO employees with their training and continuing education needs, BWSO EH&S offers classes in a range of topics covering *Water Quality, Hydraulics, Mathematics, Chlorination and Backflow Prevention*.

The goal of our staff is to expand the current curriculum and offer additional courses that would benefit our operators. If you are a current operator and know of any topics you would like to see covered in future training sessions, please give us your feedback using the communication tools offered in this newsletter. **Questions? Contact Nelson Leon (X5544)**

Emergency Evacuation Drill at Hillview Reservoir

BWSO Environmental Health and Safety Staff



Picture Taken By Jini Hanratty, NYC DEP BWS
First responders from Yonkers Fire Department enter the process area at Hillview Downtake 1 to address a simulated chlorine leak.

On January 8, 2008, Reservoir Operations hosted an unannounced, full scale emergency evacuation drill which simulated a chlorine release in Downtake 1, complete with an injured employee (in the form of a 165 lb dummy), and "real-time" response by the Yonkers Fire Department (YFD).

The goal of the drill was to evaluate operational response to a simulated chlorine release; specifically how the operators recognize the hazard, and take corresponding actions (e.g. donning respiratory protection when the levels reach 0.5 ppm, and how and when to carry out the actual evacuation). Reservoir Operations staff carried out their response and evacuation duties in an efficient, professional and calm manner. This included Watershed Maintainer Randy Ellingsen single-handedly bringing the 165 lb downed "dummy"

to a safe atmosphere outside the Downtake building. It is clear that BWSO plant operators went above and beyond to ensure that their colleagues were out of harms way! Supervisor Kuruvilla, as the designated Facility Emergency Coordinator (FEC), worked closely with the DEP Police and the Incident Commander (YFD Chief) to ensure that all employees and visitors were accounted for at the Assembly Area.

YFD performed admirably and was prepared with a decontamination unit, level "A" suits with SCBA, and 'state of the art' remote air monitoring and camera equipment. The air monitors were strategically placed around the leak area in order to ensure that fugitive chlorine emissions would not reach public or unprotected employee receptors. The cameras were used to remotely guide the YFD responders to enter the chlorine process area to address the root cause of the leak. This technology enables the YFD to work with the remote voice assistance of water plant operators to address the leak quickly, while keeping everyone safe!

Reservoir Operations personnel who were on duty for the drill were Supervisor Oomen Kuruvilla, Watershed Maintainers Randy Ellingsen, Kakkaniil Koruthu, Younan Girgis, Ephraim Bosgang and Fortunato Tecson; DEP Police Sergeant Davila; and YFD Chief Fitzpatrick. Drill observers included Bureau EHS, YFD, DEP Police, Reservoir Operations management, Bureau management and Federal Monitor representative, Steve Mazouat. Congratulations to Reservoir Operations for a successful drill and thanks to Kevin McElynn, Health and Safety Coordinator, for carrying out critical preparation work.

EPA & DEC Continue to Combat Environmental Crimes!

Here are three recent examples of environmental offenders paying the price for their environmental crimes:

1. **BP (British Petroleum) PLC** and several of its subsidiaries were indicted on felony violations of the Clean Air Act and the Commodity Exchange Act. They are slated to shell out \$373 million in fines and restitutions, the highest fine on record imposed against a single entity. The fines and plea agreements issued are as follows:

- ✦ \$50 million for the March 2005 Texas City Refinery explosion that claimed the lives of 15 workers and injured over 170 people;
- ✦ Fines of \$12 million to be paid to the Environmental Protection Agency (EPA) and \$4 million each to the National Fish and Wildlife Foundation and the state of Alaska stemming from last year's corroded pipe line leak that dumped more than 200,000 gallons of oil in the Alaskan wilderness.
- ✦ A total penalty of \$303 million for charges of committing mail and wire fraud and for conspiracy to violate the Commodity Exchange Act when four of its employees attempted to manipulate propane gas prices.

2. **380 Development, LLC – the NASCAR affiliate** was slapped with a \$562,500 penalty for violating its Beneficial Use Determination (BUD) criteria. According to the New York State Department of Environmental Conservation (DEC), 380 Development illegally deposited contaminated fill material that exceeded the state BUD requirements on a 677-acre undeveloped site in Staten Island. In addition to the fine, the order on consent includes the complete removal of all contaminated fill at an estimated cost of several million dollars and the implementation of measures to address the wide range of impacts and potential impacts to the soil and water quality.

3. **Kmart** escaped a fine of over \$1.6 million by self reporting its violations of clean water, hazardous waste, emergency planning and preparedness regulations to the EPA. These violations were reported at 17 of its distribution centers located in 13 states. Kmart has agreed to implement a plan to resolve the infraction and will face a payment settlement of less than \$105,000.

TAKE THIS QUIZ: THE FIRST THREE PEOPLE TO SUBMIT CORRECT ANSWERS AFTER 9am, FEBRUARY 26th, WILL WIN FREE DUNKIN DONUTS GIFT CARDS!

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

1) The operating time of most portable fire extinguishers is:
 A. From 30 to 60 seconds. C. From 8 to 60 seconds.
 B. From 15 to 60 seconds. D. From 8 to 30 seconds.

2) What is the second leading cause of fatalities in the workplace?
 A. Vehicle collisions. C. Falls.
 B. Homicide. D. Electrocution.

3) Which situation is given top priority for OSHA inspections?
 A. Employee complaints. C. Proximity to OSHA office.
 B. Imminent danger. D. None. All OSHA inspections have the same priority.

Answers for December 2007 Newsletter Quiz: 1)C 2)A 3)B

EMERGENCY REPAIR at JPR (Continued from p. 1)

By BWSO Environmental Health and Safety Staff

is expected to provide a HASP that contains a comprehensive Scope of Work and Job Hazard Assessment, prior to the commencement of work. For this project, Halcyon employees were required to be trained in Confined Space Entry, Lockout - Tagout, Hot Work, Respiratory Protection, RMP (Chlorine Safety), Site-Specific Right to Know, Spill Prevention & Reporting, Crane & Hoist, Scaffolding/Fall Protection, Personal Protective Equipment, and Powered Industrial Trucks.



Excavation is progress.

After all the necessary training had been completed and training records reviewed, the actual work began in the first week of August 2007. A contractor hired safety consultant was present for the entire project. EH&S personnel paid regular visits - every day during the first few months - to make sure everyone was following all the necessary safety guidelines.

After substantial excavation, the old conduit was successfully replaced by a steel conduit, and the reservoir floor was replaced with new reinforced concrete. This portion of the repair work at Jerome Park Reservoir was completed in early January 2008, without the occurrence of any injuries or exposures. Thanks to all the Reservoir Operations, DEP Engineering, EH&S, and Halcyon personnel involved in making this project both safe and successful.



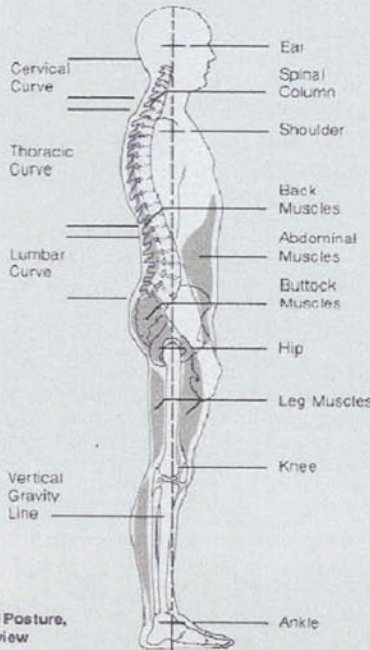
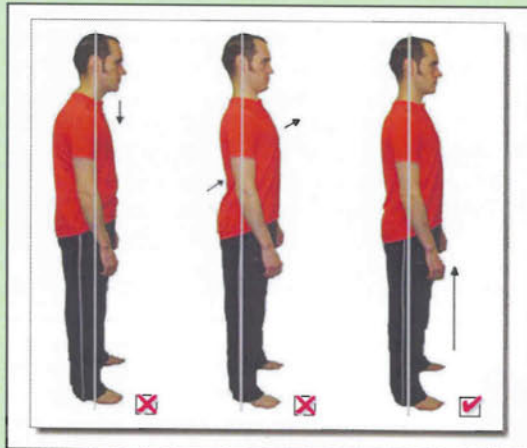
Excavator parked in a spill containment berm in the JPR basin.



A 20-foot section of the pipe being delivered to the Jerome Park Reservoir site.

Back Pain in the Workplace (Continued from p. 1)

good shape. Lifestyles have become more sedentary, but sitting for long periods of time shortens and weakens various muscles. This can result in poor posture and place you at greater risk of injury. By being physically active and exercising regularly, you promote strong and flexible muscles that keep you upright . . . and protect your back.



Good Posture, side view

PPE ITEMS

The following items are available through the General Storehouse for use by BWSO field operations personnel:

ANTI-FOG GOGGLES

ANTI-BACTERIAL WIPES



Strange But True!

A recent New York Post section said...

A New Zealand toilet entrepreneur who uses tiger worms to take care of human waste has thrown water on a government official's concern that the little creatures were being mistreated.

The bureaucrat "felt the worms were being unfairly treated, being expected to deal with human feces, and that it could affect them in a psychological way," inventor Col Bell said.

Fortunately, a specialist found the worms healthy and breeding.

Ask the Deputy Commissioner...

Dear Deputy Commissioner,

Although I agree with the catch basin program, the Department is starting to control the floods in certain Queens areas. I feel that a dragging program thru the areas, with combined sewers, will do more than the catch basin cleaning will accomplish. Combined lines have a tendency to silt up and give the system less area to move the water. I see more of this condition than problems with catch basins, and most of the areas with this problem are on combined systems.

-DEP Sewer Maintenance Employee

Dear DEP Sewer Maintenance Employee,

First, let me say that this is an excellent observation and legitimate point to consider. As you may be aware, we recently spent months cleaning the Guy R. Brewer Boulevard system from the Conduit up to the Linden Boulevard area in response to continued complaints. This comprehensive cleaning resulted in benching of systems that had previously run surcharged for years.

DEP is attempting to move towards a much more programmatic approach with regard to sewer cleaning as a whole. The concept of Capacity, Management, Operation and Maintenance (CMOM) program activities is one that is gathering steam across the country. BWSO has obtained some additional funding for contracts to study flow characteristics and to perform large scale targeted cleaning in specific trunk systems that have been identified as particularly problematic. Ultimately, our goal is to strike a proper balance between the use of in-house resources and contract work in addressing this problem more globally and pro-actively across the city. The advent of our new sewer mapping capabilities, integrated with the upgraded Hansen system, should make our ability to map persistent problem areas more effective and allow sewer maintenance to develop a more systematic approach, including more dragging and flushing, where it makes sense.

Thanks for taking the time to offer a question which has real meaning to all of us and allows for constructive dialogue about the important work that we do.

Sincerely,

James J. Roberts, P.E.

Have an EH&S question? Please write to us! We'd love to hear from you!

Please e-mail your questions
BWSOEHS_suggestions@dep.nyc.gov.

STEVE BRIE *My Life as a Chlorination Specialist...*



STEVE BRIE
Watershed Maintainer
Supervisor/Chlorination Specialist

Steve Brie started working for the NYC DEP in 1992 as a Watershed Operator. He was later transferred to the Carpenter Shop, where he assisted a carpenter with special event projects with the Transportation and Park Departments to maintain public safety for places such as City Hall and at events like the Yankee Parade. In 2001, he was assigned to supervise the MIT (Maintenance Inspection & Testing) section for the DEP Machine Shop, where he became partners with James Brennan (Machinist). Together they assist one another with MIT work and machine work.

Know a BWSO employee committed to EH&S who we should profile in the next issue? Let us know!!

Q: Where are you from?

A: I grew up in Brooklyn (NY), and I currently live in Queens (NY).

Q: Where did you attend school?

A: I went to Brooklyn Tech, and graduated from Staten Island Tech. I later took courses at CCNY.

Q: Any hobbies and/or interests?

A: No DEP is my life! (Just kidding... Laughs) I race cars, and I also build race cars. I love anything mechanical.

Q: What made you choose a career at the DEP?

A: It was a spontaneous arrangement! I put my resume in for a Watershed Maintainer position, and then started working midnight shifts as an operator in the Gatehouse. Joe Hadden (former supervisor) later promoted me. He had faith in me.

Q: What is your current job title and responsibilities?

A: Currently, my title is Watershed

Maintainer Supervisor. I turned down the Operations Supervisor position so I could keep my hands "dirty" doing the MIT work. I played a key role in making Hansen an integral part of Reservoir Operations MIT program. Hansen is a computer program designed to schedule and maintain the MIT status of all chlorination equipment. It is currently managed at Lefrak but in the future, it will be managed by me.

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

A: I was in advertising in a graphic shop while I was going to college.

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

A: The line of work which involves fixing things. I enjoy troubleshooting jobs and collaborating with plumbers and electricians to get something going...we work together as a team.

Q: Have you achieved and/or met your career goals? If not, how satisfied are you in your career?

A: I think I have. We were the first division that got off probation with the Federal Monitor, and I feel I had some part in that.

Q: What types of EH&S duties have you participated in?

A: I take care of EH&S guarding equipment, and safety issues relating to audit findings.

Also, I initiated the PRV Chlorine Alarm, which was a safety improvement. This issue was identified during a Process Hazard Analysis. I received a "Serious about Safety Award" for doing this.

Q: What do you consider to be your greatest achievements?

A: I am the only one who is involved with MIT work at Reservoir Operations. It is my sole purpose here. I take care of the equipment which chlorinates city water.

NYC Department of Environmental Protection

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Please send us your feedback on this newsletter and/or general EH&S suggestions.

We want your feedback!

FROM: _____



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