

## Environmental Health & Safety News for BWSO



Picture: Donald Hill, Construction Laborer and Lomesh Patel, Associate Project Manager.

*"Lomesh Patel traveled to multiple sites in New York City in an effort to determine if an old 36" inoperable trunk (water) main valve at East 80th Street and 5th Avenue was in an open position to permit flow through it."  
 – BWSO EHS Staff*



BUREAU OF WATER & SEWER OPERATIONS  
 ENVIRONMENTAL HEALTH & SAFETY

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### A Day in the Life of Lomesh Patel, Associate Project Manager

On Wednesday, July 22, 2009, Associate Project Manager, Lomesh Patel traveled to multiple sites in New York City in an effort to determine if an old 36" inoperable trunk (water) main valve at East 80th Street and 5th Avenue was in an open position to permit flow through it. In order to determine if the inoperable trunk main valve was open, Lomesh had to shut down one side of the valve, and then perform what is called a flow test using water main appurtenances (hydrants and blow-offs) on each side of the valve to see if one operating appurtenance would affect the other appurtenance. The full-day test began around 8:00AM at a manhole located on East 74th Street and 5th Avenue, and ended at approximately 3:00PM with a pressure test at a NYC fire hydrant in Central Park. Alongside Patel were John Byrne, Administrative Engineer for Distribution Operations, Machinist Russell Reinhartsen, and Construction Laborers Donald Hill and June Allison from Manhattan Water Maintenance. Continue reading for a play by play of their busy day.

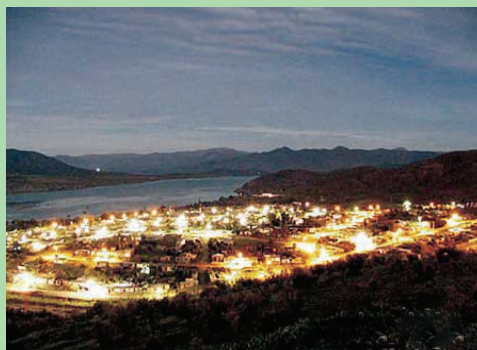
Continued on Pages 3 & 4

### Light Pollution: A Problem for New York City?

We bet you think the night lights in New York City look amazing. We agree—they sure do. And, we bet you've never thought twice about those same magnificent looking lights being a part of one of the fastest growing forms of environmental pollution today, commonly known as light pollution.

Light pollution is excessive artificial light shining through the night. Poor lighting design focuses light upward and outward, instead of just downward, obscuring the night under skyglow. Skyglow is the luminous pink and orange nighttime glow hazing the night sky in most modern urban areas. Currently 20% of the world's population is unable to see stars at night.

Yet, this doesn't mean that you shouldn't be using lights at night. It is not light pollution if the light is being efficiently used, and serves a valid and reasonable purpose. For example, if you have an outdoor light that activates only when you approach the door, and it shines straight down, that is fine. However, if your outdoor light is a fog light, angled upward at your house, and it glares into a neighbor's window, then you have light pollution.



Continued on Page 2

Please be advised that there were two errors on page 3 in the June 2009 edition of The Conduit. – Volume 3, Issue 3

1. The image included in the NYC Lead Service Lines article, which depicts a home and a water service line, is not accurate. In the image, it appears that the homeowner is responsible for their service line up to their property line. This is incorrect. The homeowner is responsible for the entire length of the service line from the inside of the house to the tap or wet connection and including the tap or wet connection.
2. There was a typo in Question 1 in the June edition of the Conduit and as a result, the question was not counted. The question should have read "Effective January 2009, NYC Administrative Code 24-803 \_\_\_\_\_." The correct answer would have then been B.



WIN A MCDONALD'S  
 GIFT CARD!  
 TAKE QUIZ ON PAGE 4



## So You've been Assigned a **DEP** Vehicle!

Motor vehicle crashes are the number one cause of death and serious injury on the job. So, we'd like to take a few moments to remind you of some key safety tips.

**Maintenance Matters!** So...get to know your vehicle. Adjust your seat and mirrors. Ensure that the vehicle is in working order. Report all damages to your Bureau Vehicle Coordinator. Remember, **NO** DEP vehicle shall be operated with the following:

- Inoperable directional signals, head lights, brake lights, windshield wipers or horn;
- Missing license plates or other DEP identifying numbers;
- Missing or expired inspection sticker; and
- Missing or broken rear or side view mirrors.

In case you breakdown on a busy highway— use your hazard lights, stay with the vehicle, and call DEP Fleet Services at (718) 610-0800 during business hours or (718) DEP-24HR (337-2447) after business hours.

**Secure Materials for Transport.** Tools and equipment should be secured and stored in the passenger compartment or trunk while being transported to prevent hazardous shifting.

**Buckle Up.** Seat belts are the single and most effective way to reduce deaths and serious injuries in traffic crashes and are required by law.

**Avoid Distractions.** "Drive-Time" is not "Down-Time." Avoid multi-tasking. Driving while distracted is a factor in 25% - 30% of all traffic crashes. If you are talking on a cell phone, texting or changing the radio station, you are not paying enough attention to the road. If you have to make a call, it is safest to pull over if feasible or use a hands-free device.

**Rain, Fog, or Snow = Turn ON Your Headlights.** New York State (NYS) law requires you to turn on your vehicle's headlights whenever weather conditions would ordinarily require the use of windshield wipers to clear precipitation. For increased visibility during rainy, foggy, and snowy conditions, keep your vehicle's headlights on low beam. *'Daytime running lights' do not qualify as headlights.* When driving in such weather conditions, remember to:

- Reduce your speed;
- Signal your turns and lane changes further ahead of time than usual to give others increased warning;
- Brake early before coming to a stop; and
- Replace your windshield blades if your windshield wipers cause streaks or smears.

It is also a good idea to turn on your headlights to increase visibility in low light areas, parking garages, and tunnels. This will make you more visible to other drivers.

**If You Snooze, You Lose.** Drowsy driving causes more than 100,000 crashes a year, resulting in approximately 40,000 injuries and 1,550 deaths. Make sure you are alert.

**Be Wary of Road Rage.** Traffic delays can be frustrating, but being harsh never pays. Destructive driving acts may include driving at excessive speeds, tailgating, high beaming, failure to signal lane changes, and running red lights. Avoid engaging in conflict. Allow others to merge into lanes and roadways. Stay clear and do not challenge aggressive drivers or even pedestrians! A little patience can go a long way. Also, be sure to roll your windows up if you feel the need to vent! When you are driving a DEP vehicle, you are not a private citizen – you are representing DEP!

**Lastly, remember... chill out - its summer time!**

For more information see:

[http://www.osha.gov/Publications/motor\\_vehicle\\_guide.pdf](http://www.osha.gov/Publications/motor_vehicle_guide.pdf)  
[http://www.nyc.gov/html/ops/downloads/pdf/agency\\_services/city\\_vehicle\\_driver\\_handbook.pdf](http://www.nyc.gov/html/ops/downloads/pdf/agency_services/city_vehicle_driver_handbook.pdf)  
DEP VOM

## To Text or Not to Text, While Driving

Have you ever been stuck in traffic or on the road heading to your next work location when you remember something you forgot to tell your boss or co-worker or even your spouse? Rather than picking up your cell phone to make a phone call, and risking the likelihood of being ticketed, we bet you may have opted to send a quick text while driving instead. After reading this article, hopefully you will think twice before sending a text message while driving.

A new study conducted by the Virginia Tech Transportation Institute (the final analysis of which is currently under peer review) found that when drivers of long-haul trucks texted while on the road, their collision risk was *23 times greater* than when not texting. According to the study, which equipped trucks with cameras and followed drivers over an 18-month period, "drivers typically spent [about] five (5) seconds looking at their devices – enough time at typical highway speeds to cover more than the length of a football field."

A similar study, also currently under peer review, was conducted at the University of Utah in a laboratory setting using a driving simulator. Here, college students showed an *eight (8) times greater* crash risk when texting than when not texting. Although the risk factor was found to be less in the University of Utah's driving simulator experiment, the study also found that drivers took their eyes off the road for approximately five (5) seconds when



texting. According to David Strayer, a professor at the University of Utah who co-wrote the piece, the difference in the risk factors found between the two studies may be attributable to the dissimilarity in maneuvering and stopping trucks versus the driving simulator, and the possibility that college student drivers are better at multitasking. The lesson here is that whether the collision risk is eight (8) times or 23 times greater when texting, why risk it at all? To ensure your safety and the security of other drivers around you while on the road, please refrain from texting. Although it is not yet illegal in New York State, New York legislators have sent a bill to Governor David A. Paterson. As New York City DEP employees, let's set a precedent for safe driving even before the government requires it.

Reference: [http://www.nytimes.com/2009/07/28/technology/28texting.html?\\_r=1](http://www.nytimes.com/2009/07/28/technology/28texting.html?_r=1)

## Light Pollution: A Problem for New York City?

*Continued from Page 1*

From a health and safety perspective, keeping dark areas illuminated is usually good, but too much light can also be bad. Too much light will interfere with a person's sleep cycle. Humans have evolved to be most active during the day, so your body will remain awake and alert if light abounds. Your body requires a lack of light in order to achieve rapid eye movement (REM) sleep. A lack of REM sleep is associated with waking up tired, irritability, headaches, fatigue, and sickness. Too much light also affects your melatonin levels. Melatonin has been associated with eliminating cancerous cells from your body. In studies done on night shift nurses, an increase in the rates of colorectal cancer for those who worked even one night shift a week was found. There are also studies being done, which are trying to link an increase in cases of breast cancer to a lack of nighttime sleep.

Ecologically speaking, light pollution is altering the pattern of nocturnal creatures. Sea turtles in Florida are having difficulty nesting due to the light. Mother turtles are not likely to nest on brightly lit beaches. Additionally, their hatchlings are just as likely to end up on the highway as in the water because the hatchling turtles rely on the reflection of the moonlight on the ocean to tell which way to go. Many of them are mistaking the city lights for that light, and often head the wrong way. Nesting birds, which can normally tell when to migrate by the change in daylight, are leaving too early or too late due to their inability to tell when days are getting shorter as a result of excessive lighting. Not to mention the thousands of birds that crash into the brightly lit skyscrapers each year, mistaking a brightly lit building for a clear pathway.

Light pollution is easily remedied by removing light sources you don't need by making sure that the light is being efficiently used so that most of it is illuminating downwards instead of outwards and upwards. Turning off lights and unplugging electronic devices not currently in use will also save you approximately 5% on your electric bill. Finally, by collectively decreasing our light pollution, New York City (NYC) might once again be able to see the Milky Way.

### UPCOMING TRAINING:

August-October 2009

Confined Space Entry

Questions?

Contact Nelson Leon  
(718) 595-5544

## Toxic Release Inventory Shows Progress

For those living in New York, it's not uncommon to see a billowing smoke stack in the city skyline or a discharge pipe leading into one of the City's waterways. Have you ever wondered exactly what is being released into our City's environment? Today, environmental release statistics can easily be obtained from the U.S. Environmental Protection Agency's (EPA) Toxic Release Inventory (TRI) reports—the latest of which was released earlier this year. The TRI report enables us to gain knowledge about the types of chemicals present in our local environment and even provides a mechanism by which we can determine environmental trends over time in any region. TRI reports have been released to the public annually since 1988.

TRI reports typically explain where chemical releases have occurred, what types of chemicals were released, and how much of each chemical was discharged into the environment. According to Michael Kennedy, Environmental Compliance Graduate Intern from the Environmental Health and Safety Division at BWSO, "a chemical release occurs when a potentially hazardous chemical that may cause air, land, and/or water pollution, is allowed to enter the environment."

TRI reports are released in accordance with the Emergency Planning and Community Right-to-Know Act of 1986 and its amendments, and the Pollution Prevention Act of 1990. Compilation of the data contained in TRI reports has been proven to be noteworthy. According to one EPA Regional Administrator, "people become aware of what is happening in their own backyards, businesses become more sensitive about how much [toxins] they use and release into the environment, and governments get to know where to focus their local efforts."

For New York, this year's data shows that state-wide, there has been a 4% total decrease of toxic releases in our air, land, and water. This 4% reduction includes a decrease of 21% in discharges into the Empire State's waters. Air stack emissions have also decreased by 11% due to decreases in emissions from Eastman Kodak Company, known for its photographic film products, and International Business Machines Corporation (IBM), the multinational computer technology and IT consulting company. AES Greenridge reduced its emissions by 600,000 pounds due to U.S. Department of Energy funding that provided them with cleaner burning coal technology. New York City (NYC) reported a combined air, land, and water release of 226,185 pounds, with Bronx County reporting the lowest with only 40 pounds and Queens County, the highest, with 169,668 pounds—75% of NYC's total releases.

TRI reports are available online at:  
[www.epa.gov/tri/index.htm](http://www.epa.gov/tri/index.htm).

## A Day in the Life of Lomesh Patel...

*Continued from Page 1*

Lomesh Patel clocks in at Bronx Sewer Maintenance.

Lomesh reports to East 74th Street and 5th Avenue to confirm whether a private DEP contractor has removed debris from one of the old appurtenances (blow off at East 74th Street and 5th Avenue). The blow off will be used in the test.

7:30AM 8:00AM

Lomesh arrives at East 80th Street and 5th Avenue to begin his full-day test.

9:41AM

9:15AM

Lomesh and John Byrne walk to the hydrant located in Central Park. The hydrant is connected to the water main that is being tested. John tests for the pressure of the flow, and confirms the pressure to be 15.6 psi. "This main is a low pressure main passing through a high elevated area. No one in this area is receiving water from this main. This main feeds lower elevated areas to the south part of the City," John and Lomesh reported.

As the work zone is being set up, Lomesh checks his maps and explains which water main will be tested to see whether the valve is working. Another test will be performed to see if the water flows one way through Central Park West.



John Byrne and Lomesh Patel

10:10AM

The Construction Laborers manually close the gates except for the one that needs to be closed by the "gate device." After several tries with the first and second truck, Lomesh concluded that there was not enough hydraulic power to close the gate. A new truck was needed to assist in closing the gate. Lomesh tells us that the water main was built in 1870, and the gates in the water main are rarely opened and closed. Since the gates are rarely used, it is difficult to open/close the gates.



Donald Hill and Lomesh Patel

10:22AM

The crew moves to the second location, East 74th Street and 5th Avenue. The manholes are uncovered and Lomesh checks to see if the blow off is working. A blow off is an outlet that comes off at the bottom of large diameter water mains, perpendicular to the water main. A blow off is used to remove water from the large main for construction projects and emergencies, flushing operations and flow testing. Blow offs can be connected to sewers or they can be connected to a pot manhole (blind blow offs).



11:11AM - 11:21AM

*Continued on Page 4*

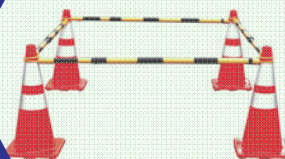
## PPE Items available at GS-1

As a result of receiving feedback from the recent EHS Poster Campaign visits, the following items are available at the General Storehouse (GS-1).



Chinstraps

Cone Grabbers



Tinted Safety Glasses



Got  
Suggestions?  
E-mail us!



## NYC Department of Environmental Protection

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59-17 Junction Boulevard, 3<sup>rd</sup> Floor  
Flushing, NY 11373-5108  
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We'd love to hear  
from you!

E-mail us at:

BWSOEHS\_suggestions@dep.nyc.gov

## A Day in the Life of Lomesh Patel...

Continued from Pages 1 & 3



June Allison and Donald Hill

11:31AM

The crew moves out to shut the 20" crossover valve at East 74th Street and 5th Avenue. Lomesh fully closes the gate in the water main. He tells us that 850 ft/lbs was the limit to close the gate.

11:49AM - 12:40PM

The crew reassembles at East 45th Street and 5th Avenue (the next blow off on the trunk main) because the blow off at East 74th Street and 5th Avenue is inoperable. The laborers then begin to set up the work zone, and open the manhole. Finally, the blow off gate is opened to create flow to the adjacent sewer.

2:15PM - 2:35PM

The laborers close the blow off gate at East 45th Street and 5th Avenue. The flow test is complete. The crew moves to the other locations (East 80th Street and East 71st Street, 5th Avenue) to put all the other valves back to open position. Lomesh ends his day in Manhattan.



Lomesh Patel

The Construction Laborers, with help from the private contractors, try to open the notch of the exterior main cover. The gate device cannot be used because the water main is old and it could get damaged. After several attempts to open the gate manually, Lomesh concludes that the blow off valve is inoperable.



June Allison, John Byrne,  
Donald Hill, and Lomesh Patel

Lomesh is on the phone with John, and John is at the hydrant in Central Park and East 79th Street. John checks the hydrant pressure before Lomesh does anything at East 45th Street and 5th Avenue. John asks Lomesh (by phone) to open the blow off valve at East 45th Street and 5th Avenue. Lomesh tells the crew to open the valve giving direction to how many turns at a time. John, meanwhile, sees a pressure drop on the hydrant. The conclusion is that the inoperable 36" valve must be open because Lomesh pulled a substantial amount of water on one side of the inoperable valve and John saw a pressure drop on the other side of the inoperable valve.

2:50PM

3:07PM

Lomesh Patel began his career with the NYC DEP in 1989 as an Associate Engineering Technician. Today, Lomesh is an Associate Project Manager for BWSO's Distribution Operations. Mr. Patel is known as the problem solver and brain in the field. Lomesh is often tasked with the duty of figuring out "what's the problem out in the field for BWSO." If you want to know why your water pressure is good, or whether a valve in a particular water main is functional, he is your man. Lomesh is the person who investigates the City's water mains to answer your questions/complaints. According to his supervisor, John Byrne, "Nine (9) out of ten (10) times, he solves the problem!"

### 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

- Which of the following is NOT a recommended procedure for the correct maintenance and operation of a DEP vehicle?
  - Report any vehicle damage to the Bureau Vehicle Coordinator.
  - Ensure the vehicle is in working condition.
  - Inspect the vehicle for inoperable directional signals, headlights, and brake lights.
  - Operate the vehicle with a missing inspection sticker.
- Information on toxic chemical releases and waste management activities of industries and federal facilities are published in an Environmental Protection Agency (EPA) report entitled \_\_\_\_\_.
  - Toxic Chemical Release Inventory (TCRI)
  - Toxic Release Inventory (TRI)
  - Toxic Reporting Index (TRI)
  - Toxic Pollutant Inventory (TPI)
- Light Pollution can be defined as \_\_\_\_\_.
  - Excessive artificial light shining through the night.
  - Light weight gases found in the atmosphere that contribute to smog.
  - Mercury spills resulting from broken fluorescent light bulbs.
  - Sun glare reflecting off of city buildings.

Answers for June 2009 Newsletter Quiz: 1) B 2) A 3) D