

## Did You Know?

Lots of new requirements and regulations are coming into affect soon, are you ready for them? Here are a few to keep your eye on. If you have any questions or need assistance becoming compliant or to be proactive in addressing these changes, contact EEI.

### Truck Weight Limits Changing

Along with passage of the state's first capital bill in 11 years is a change to the uniform weight access for truckers in Illinois by increasing axle loads and gross weights of the vehicles traveling on non-designated highways. Effective January 1, 2010, the gross weight is increased to 80,000-pounds.

### High Capacity Well Regulations Amended

Public Act 096-0222 amends the Water Use Act of 1983. The effective date for the Act is January 1, 2010. The key amendments and features of the Act include:

1. Cook, DuPage, Kane, Lake, McHenry and Will Counties are no longer exempt from the requirements of the Act.
2. Existing high capacity wells or high capacity intakes for public water supply shall participate in the Illinois State Water Survey's Illinois Water Inventory Program. (IWIP)
3. A high capacity well and high capacity intake are defined in volumetric rates of 100,000 gallons (70 GPM) or more pumped or withdrawn in any 24 hour period.
4. Proposed high capacity wells and intakes must be registered with the Local Soil and Water Conservation District office.
5. The Act exempts agricultural irrigation and high capacity wells used for irrigation from the reporting requirement for five years.

"For more information, go to: <http://www.isws.illinois.edu/gws/iwip>"

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## Enterprises Trivia Challenge

**Q: How many bushels of corn did Illinois produce in 2008?**

Send your answer to [eei@eeiweb.com](mailto:eei@eeiweb.com) or fax to (630) 466-6701 by January 1st to be entered in a drawing for a \$100 American Express gift card!

### Summer 2009:

**Q:** According to a report issued by the Federal Highway Administration and the United States Environmental Protection Agency, what percent of the asphalt from road surfaces' that is removed each year during widening and resurfacing projects is reused as part of new roads, roadbeds, shoulders and embankments?

**A:** 80%



Engineering Enterprises, Inc. (EEI), founded in 1974, provides consulting engineering services throughout northern Illinois. Our expertise includes water, wastewater, transportation, stormwater, construction management, land surveying and GIS.

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# Enterprises



## Nighttime Visibility: Sign Retroreflectivity

It's 11 pm; all of a sudden a sharp curve appears out of nowhere on the roadway ahead. As you drive through the curve, you notice that the caution signs are dim and hard to read, providing little warning of the curve ahead. Nighttime driving is inherently hazardous because of decreased driver visual acuity.

Maintaining adequate sign retroreflectivity improves highway safety by and prevents roadway departure crashes by bouncing light from vehicle headlights back toward the vehicle and the driver's eyes making the signs appear brighter and easier to see and read. Because the retroreflective properties of signs deteriorate over time, highway agencies need to regularly maintain their signs in order to ensure that they are clearly visible at night.

In January 2008, the Federal Highway Administration (FHWA), via an update to the 2003 Manual of Uniform Traffic Control Devices (MUTCD), enacted sign retroreflectivity requirements to enhance safety and nighttime sign visibility. The FHWA has set January 20, 2012 as the date that agencies must have established a sign management or assessment program and implement the maintenance sign retroreflectivity at or above the minimum standards.

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MUTCD New Edition

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An Industrial  
Pretreatment Program

Did You Know?

Enterprises Trivia  
Challenge

Fall/Winter 2009

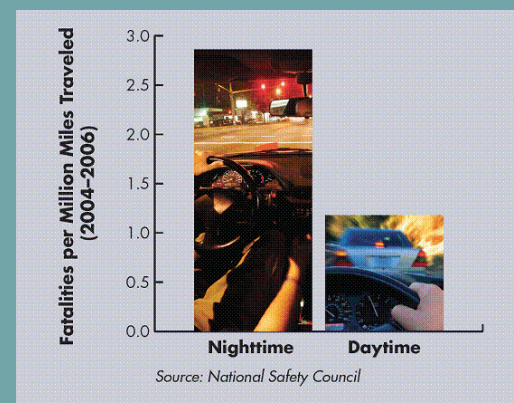
## Nighttime Visibility: Sign Retroreflectivity Cont'd

By January 20, 2015, all regulatory, warning and ground mounted (except street name) signs must be compliant. By January 20, 2018, all street name and overhead guide signs must be brought into compliance.

A new MUTCD is expected to be published by the end of 2009. The new manual will have additional requirements that may necessitate sign replacement. Some of the changes include larger letter size, the use of upper and lower case letters for street and place names, text revisions ("No" instead of "Prohibited" or "Banned"). The MUTCD will incorporate transition periods to allow highway agencies the time to budget funds and start updating their signs.

EEI can assist your agency in implementing a sign management program to inventory, assess and prioritize the maintenance and/

or replacement of your highway signs. Sign improvements can be added to a pavement maintenance program or other transportation related improvement projects. For more information on a sign management program or other transportation related project needs contact Ronald Naylor, P.E., (630) 466-6700 or [rnaylor@eeiweb.com](mailto:rnaylor@eeiweb.com).



## Point Source Control: An Industrial Pretreatment Program

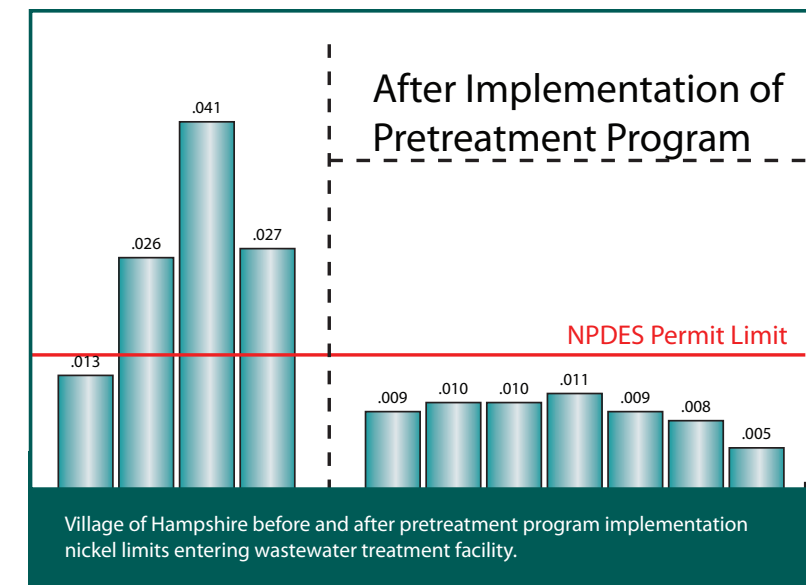
With more stringent regulations for wastewater plant discharge, municipalities are forced to scrutinize the type and quality of the wastewater tributary to the publicly owned treatment works (POTW). To meet NPDES permit requirements and water quality standards, a municipality may need to look to their industrial users for point source control. A municipality can do this by establishing an industrial pretreatment program.

An industrial pretreatment program is a locally administered program whose purpose is to control the discharge of pollutants to the POTW. A program establishes responsibility of local governments, industry, and the public to implement National Pretreatment Standards to control pollutants which pass through or interfere with the treatment process of the POTW.

Industrial pretreatment programs are required for POTWs with design flows greater than 5 million gallons per day (MGD) that receive

waste from industrial users. POTW's that are less than 5 MGD should consider a industrial pretreatment program when they are facing issues with achieving effluent NPDES permit requirements, meeting receiving stream water quality standards, or meeting sludge disposal requirements for land application.

A community can establish an industrial pretreatment program by adopting an ordinance and setting local limits for various pollutant parameters. Through surveys, site visits, and wastewater analysis, a community can target the industries needing to be regulated under the ordinance. Discharge permits are issued to the target industries outlining maximum limits for



pollutant parameters, monitoring schedules, and reporting requirements. Compliance schedules are established for implementation or improvements to an industry's wastewater pretreatment system.

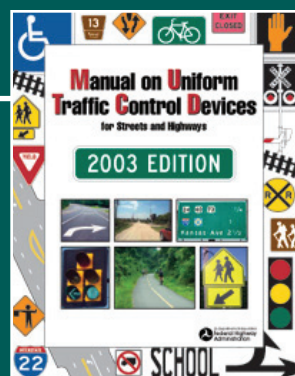
The NPDES permit for the latest expansion of the Village of Hampshire's wastewater treatment facility established new effluent discharge limits. The Village determined they could not meet the new nickel limit with conventional treatment alone, and needed to reduce the amount of pollutants coming into the facility. EEI worked with the Village of Hampshire to establish an industrial pretreatment program to address the high levels of nickel in the waste coming into the facility. After adopting an ordinance, issuing discharge permits, and negotiating compliance schedules, the Village was able to significantly decrease the amount of nickel sent to the wastewater treatment facility. The facility was in compliance with

NPDES requirements for nickel by the IEPA deadline.

Continued administration and monitoring of the program is important to ensure continued compliance. Each permitted facility should be required to submit wastewater analysis and compliance reports for review. Periodic checks are made by the municipality by placing composite samplers strategically in the sanitary sewer collection system to verify the quality of industrial wastewater being discharge to the municipal sanitary sewer system.

If you want to know how your community can use an Industrial Pretreatment Program to save on future expansion costs or to extend the capacity of the existing system, contact Rebecca Nelson, P.E. at (630) 466-6700.

## MUTCD New Edition



The Manual on Uniform Traffic Control Devices (MUTCD) is the national standard for traffic control devices (TCD) installed on all roads and parking lots where the public is allowed to travel without access restrictions. A TCD is any piece of equipment used to regulate, warn or guide traffic. The MUTCD provides the standards and guidance for when and where a TCD should be placed.

An updated version of the MUTCD is expected to be published by the end of 2009, and have significant changes affecting local agencies. For example, street signs will be required

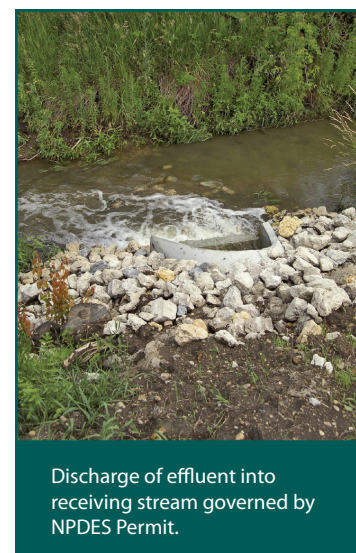
to use both upper and lower case letters; and supplemental plaques on stop signs such as "2-Way" and "4-Way" will be eliminated. The FHWA is emphasizing signs with symbols instead of words, some of which are being eliminated. Local

agencies will have to evaluate any posted advisory speed limits on the horizontal curves within their jurisdiction. The new MUTCD will list the compliance periods for all of the changes.

The first MUTCD was published in 1935 by a joint committee of the American Association

of State Highway and Transportation Officials (AASHTO) and National Conference on Street and Highway Safety (NCSHS). Since 1935, the MUTCD has been reissued eight times, most recently in 2003. AASHTO and NCSHS administered the MUTCD until 1971 when it came under the direction of the Federal Highway Administration (FHWA).

All highway agencies are encouraged to monitor the MUTCD website for news and information about of the new manual. Once the new manual is published, it may be downloaded for free from the FHWA website: <http://mutcd.fhwa.dot.gov/index.htm>



Discharge of effluent into receiving stream governed by NPDES Permit.