



FYI - Small Systems

Small Systems Committee
INDIANA SECTION AWWA

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June, 2011

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FYI

Greetings Everyone! We hope that the soggy spring has not caused serious issues for your water systems. It looks like we have made up for the dry fall last year and then some.

In this newsletter we give you some excellent articles dealing with the proposed reduction in fluoride levels for drinking water systems, as well as the USEPA recommendation for voluntary Chromium-6 sampling. Inside you will also get a FAQ article from IUPPS that highlights recent rule changes in the underground plant protection system and some informational publications dealing with underground safety, National Safe Digging Month, Guidelines for locate marks, and 811 Fact Sheet. Additionally in this newsletter we get a lessons learned article highlighting what utilities should have taken away from the Recession. Take a look at the article from the Chair – Jeff Peters, as he recaps the tsunami in Japan earlier this year and some other recent natural disasters leading up to the importance of InWARN for Utilities.

We hope you enjoy this issue of FYI, and as always we welcome your input and suggestions for articles. This newsletter is for you and we would like to hear from you on how it could be improved.

FYI FROM THE SECTION CHAIR

As I write this article, the tsunami disaster that occurred in Japan on, Friday, March 10, 2011 is less than 24 hours. I don't know about you, but for me, a disaster of this magnitude is impossible to fathom. Can any one of us imagine what it would be like to live through a disastrous event of similar magnitude here in the Hoosier land? You say it can't happen here? What about the F1, F2, F3 and, sometimes, F4 tornados that seem to crisscross our state with reckless abandon each and every spring and even sometimes in the fall? Just ask Gale Gerber, City of Nappanee Water Utility Superintendent, about his experience following the F3 tornado that hit Nappanee in October 2007. Fortunately for the residents of Nappanee, utility service was restored in fairly quick fashion; however it took the City of Nappanee two years of rebuilding to recover from the scars of that horrific event.

What about the sleepy New Madrid fault that lies less than 150 miles to the south of Evansville? Do you ever recall hearing that during the 1811/1812 New Madrid earthquakes that the Mississippi River actually flowed backwards? Did you know, although there is less of a likelihood of an earthquake to occur in Indiana in our lifetime than an earthquake along the west coast of the United States, the resulting damage of an earthquake along the New Madrid fault could result in far greater damage here than damage by an earthquake of similar magnitude along the west coast? If southern

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FYI FROM THE SECTION CHAIR (Continued)

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Indiana were struck by an earthquake of the magnitude that just struck Japan it would result in significant rebuilding consequences for many communities for years to come? The 1811/1812 New Madrid quakes registered between 8.0 and 8.9. Japan's recent earthquake registered at 9.0. For your consideration, what do you think the consequences would be if the dam at Patoka Lake failed as a result of an earthquake in this area?

Hopefully, we will all avoid experiencing a disaster of this magnitude in our lifetime, but we need to be prepared for the time when a disaster will happen. And it will happen, we just don't know when. I encourage each and every water and wastewater utility in Indiana to become a member of InWARN, the disaster assistance network of local utilities in Indiana that have agreed to provide assistance to a participating neighboring utilities in the event that a disaster strikes and wrecks havoc on any utility's ability to maintain adequate service, re-establish service following a disastrous event or even to be able to provide a minimum level of service until such time that the utility can fully respond, repair and/or rebuild their damaged infrastructure. InWARN is a great independent organization and I am proud to say that I know several members of the InWARN Steering Committee personally. They are a dedicated group of water professionals comprised of water and wastewater operators from throughout Indiana, such as you, with a great sense of community and a driven desire to serve Indiana's water and wastewater utilities in the event of a natural disaster. I encourage you to check out their website at www.inwarn.org and if you are not already a member, I encourage you to join up today.

In future editions of *FYI Small Systems*, I promise to be more upbeat and enlightening, but I felt the recent events in Japan were cause for a reminder to us all that we need to prepare for the unknown as best we can define it. I wish you all peace, good health, good fortune and a life free from disasters.

Your Chair,

Jeff

MARK YOUR CALENDARS!! (Continued)

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August 24, 2011 – Indiana Rural Water Association – Well-head Protection Phase II; Topeka, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

August 25, 2011 – Indiana Rural Water Association – Excavation Safety & Competent Person Training – Chandler, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

September 7, 2011 – Indiana Section AWWA – Southwest District Meeting – Location TBD. Contact: Tim Nelson at 812-295-2800; or visit the InAWWA website at www.inawwa.org

September 8, 2011 – Indiana Section AWWA – Southeast District Meeting – Location TBD. Contact: Kurt Riedman at 765-647-5681; or visit the InAWWA website at www.inawwa.org

September 9, 2011 – Indiana Section AWWA – Central District Meeting – Fort Benjamin Harrison; Lawrence, Indiana. Contact: Tom Speer at 317-524-6311; or visit the InAWWA website at www.inawwa.org

September 15, 2011 – Indiana Section AWWA – Northeast District Meeting – Warsaw, Indiana. Contact: Jim Clevenger at 260-740-1360; or visit the InAWWA website at www.inawwa.org

September 16, 2011 – Indiana Section AWWA – Northwest District Meeting – Valparaiso, Indiana. Contact: Randy Wynn at 574-223-3412; or visit the InAWWA website at www.inawwa.org

September 19, 2011 – Indiana Rural Water Association – Process Instrument Verification for Water & Wastewater Workshop; Southern Location TBD. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

September 21, 2011 – Indiana Rural Water Association – Process Instrument Verification for Water & Wastewater Workshop; Carmel, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

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WHAT SHOULD UTILITIES HAVE LEARNED FROM THE GREAT RECESSION?

By: John Seever, CPA, Partner, Umbaugh

I'm on the back side of fifty and the guy looking back at me in the mirror is getting wrinkles. But aside from the aches and pains, the "Great Recession" has reaffirmed that there are some advantages to age.

If you're younger than me, you likely can't remember a recession. No, not the statistical "blip" recession, but a "real" recession. (Remember our "Great National Malaise" of the 1970's?) If you take the economist's view, recessions are not only necessary, but a good thing by wringing the excesses of our economic system. (Try explaining that to someone who lost their job). But I'm getting off my point.

This recession has provided several examples of what we, as utility industry professionals, should value, as well as a few items that we need to have learned from our shared experiences of the last couple of years.

- Accounting information is critical. Without timely, accurate financial information, management is making decisions blindfolded. All too often utilities undervalue, and thus, under-fund accounting staff positions.
- Credit worthiness and financial stability are important. Gone are the days when credit was so available that lenders didn't really pay attention to the borrower's financial condition. When combined with the loss of many local banks, borrowing money for projects may be more difficult in the future.
- Budgets. I find it perplexing that there are still utilities that don't have budgets as a roadmap of its financial performance. Even having an incomplete budget is better than having no budget at all.
- Capital planning should be periodic, not episodic. Those utilities that were prepared with capital plans in the queue were able to benefit from grants coupled with very low construction costs to complete capital improvement projects.
- Debt. With near historically low interest rates, this is a tremendous opportunity to refinance and restructure outstanding debt at lower interest rates. Most "experts" believe interest rates will rise, they just can't agree on when this might happen.
- Efficiency. Customer resistance to rate increases is greater when the economy is weak. Utilities are being expected to do more with less and to document these efforts before asking for rate increases. Greater efficiency often involves additional investments in technology and training.
- Periodic rate studies. While it may seem counter-intuitive on the surface, the best way to help both your customers and your utility over the long-term is to actively manage rates so that rate changes occur more moderately, but more frequently, over time. The value of a professionally prepared rate study isn't a luxury, it's a necessity the same as insurance and technology.

Intelligent people learn from history; others are doomed to repeat the same mistakes.

NATIONAL SAFE DIGGING MONTH SOCIAL MEDIA MESSAGES INDIANA

Social media has become an integral tool in how society sends and receives information, communicates with family members and colleagues and learns about new products and services.

Facebook and Twitter have become two of the best and most cost-effective ways for stakeholders to communicate with their various audiences about the importance of safe digging practices.

To assist stakeholders who have created Facebook and Twitter accounts for their organizations, CGA has developed a series of recommended Facebook status updates and "Tweets".

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NATIONAL SAFE DIGGING MONTH SOCIAL MEDIA MESSAGES INDIANA *(Continued)*

(Continued from page 3)

Please review the list of recommended messages below and use them verbatim or modify them as needed. You'll notice that for the Tweets we've added the #NSDM "hashtag" to the end. This will allow any stakeholder to visit <http://search.twitter.com> and type #NSDM into the search field to see what everyone else is saying about safe digging.

If you have questions, please send an email to nsdm@commongroundalliance.com.

Facebook

1. What sort of digging projects do you have planned for this month?
2. April is National Safe Digging Month! This month, recognized by CGA stakeholders, reminds diggers the importance of calling 811 before all outdoor digging projects, large or small. <http://www.call811.com>
3. Did you know failure to call 811 before digging results in more than 60,000 unintentional hits of underground utilities annually across the United States?
4. No matter if you're a contractor, landscaper or "do-it-yourselfer," 811 works for you! Smart digging means always calling 811 before any project to have your underground utility lines marked.
5. What is the most difficult outdoor do-it-yourself project you ever did?
6. Wondering how 811 works? Check out <http://www.call811.com/how-811-works/default.aspx>
7. Be sure to call 811 several days before any digging project. Hitting an underground utility line while digging can cause serious injuries, disrupt service to entire neighborhoods, and potentially result in fines and repair costs.
8. The following colors represent the seven various utility lines: red, orange, blue, green, yellow, purple, and white. To see which colors correspond with each utility click here: <http://www.call811.com/faqs/default.aspx>
9. This year Arbor Day will be celebrated on Friday, April 29. Before planting any trees, make sure to call 811 a few days in advance to have underground utility lines marked.
10. Did you know digging without calling 811 can lead to lost utility service? Don't spend a "Day in the Dark." Check out the video at www.call811.com to learn more.

Twitter

1. April is National Safe Digging Month; recognizing the importance of calling 811 before all outdoor digging projects. www.call811.com #NSDM
2. Before installing a mailbox or fence make sure to call 811 a few days in advance to have underground lines marked. www.call811.com #NSDM
3. Digging fact of the day: EVERY outdoor digging project requires a call to 811 beforehand. www.call811.com #NSDM
4. 811 works as the easiest way to call before digging nationwide. Make the call a few days before you dig. www.call811.com #NSDM
5. 7 colors represent the various underground utility lines. Do you know what they are? #NSDM
6. 811 is the national number designated to protect diggers from hitting an underground utility line. www.call811.com #NSDM
7. One easy call to 811 starts the process of having underground utility lines marked. Here's how it works. <http://tinyurl.com/ykgmffz> #NSDM
8. Before planting any trees this Arbor Day, remember to call 811 to avoid striking an underground utility line. www.call811.com #NSDM
9. Did you know digging without calling 811 can lead to lost utility service? Check out the video at www.call811.com to learn more. #NSDM
10. Don't make a judgment call. Make a phone call. Call 811 two working days before digging to have underground utilities marked. #NSDM

HEXAVALENT CHROMIUM

By: Jaimie Foreman; Carmel Utilities

In 2008, the National Toxicology Program, part of the National Institutes of Health deemed Hexavalent Chromium or Chromium-6 a “probable carcinogen”. In September of 2010, EPA released a draft “Toxicological Review of Hexavalent Chromium” for public comment and external review. In December of 2010, Environmental Working Group (EWG) was the first to publish a study to the general public of a nationwide analysis of hexavalent chromium. Traces of Chromium -6 were found in 31 out of 35 cities sampled in the study.

U.S. EPA currently has regulations for “total” chromium, which includes Chromium-0, Chromium-3 and Chromium-6. Total chromium is tested in an IOC sample. The current legal limit for total chromium is 0.1 mg/L or 100 ppb. Under the original assessment, given the science at the time, it was assumed that the results of a total chromium sample were 100% chromium-6. Given this assumption and current regulations, nationally no public water supplies have been in violation for exceeding the legal limit for Chromium-6.

Chromium-3, Trivalent Chromium, is found to occur naturally in the environment. Some detection of chromium-3 has been found in vegetables, fruit, meats and grains. The body uses the Chromium-3 mineral to metabolize glucose. Chromium-3 is not harmful alone, but when introduced to an oxidant, such as chlorine, it transforms into Chromium-6. Chromium-6, individually, was a commonly used industrial chemical in the early 1990’s. Current industries still use chromium-6 in the manufacturing of dyes and plastics or chrome plating, potentially discharging the contaminant in the waste as it leaves the facility.

As new sciences surface along with current assessments, Chromium-6 is “likely to be carcinogenic to humans” when consumed in drinking water, and it is probable that U.S. EPA will tighten the drinking water standards to address the health risks that it poses once the final assessment is made in 2011.

New sciences now allow testing specifically for Chromium-6 in drinking water, although not required by the U.S. EPA; they have provided guidance to public water systems on how to sample for this. U.S. EPA believes that additional monitoring will allow public water systems to better inform their consumers of the levels of chromium-6 in their drinking water and help to determine the degree in which treatment is affecting chromium-6 levels as it exits the treatment plant.

Below is the guidance provided by U.S. EPA on where and how frequently public water systems can sample for chromium-6.

Intake/Well locations:

Systems should collect samples of untreated water at the intake/well. Systems with multiple intakes/wells should identify sampling points that result in a representative sample of the utilized source waters to account for the multiple sources.

Entry point to the distribution system:

Systems with drinking water treatment processes should also collect samples at the point that treated water enters the distribution system. Systems with multiple entry points should collect samples from representative entry points to the distribution system.

Distribution System:

Because chromium-3 can transform into chromium-6 when introduced to an oxidant such as chlorine, it is recommended to collect a sample that represents the maximum residual time, which is consistent with the monitoring goals for disinfection byproducts. Ten or fewer samples should be collected from sample points used to monitor disinfection byproducts for systems that use disinfection. For systems not disinfecting, ten or fewer samples should be collected from samples sites used to monitor for total coliform.

Systems with surface water sources should collect samples quarterly, where as systems with groundwater sources should collect samples semi-annually. When sampling for Chromium-6, it is recommended to take all samples in the same day.

For additional information or guidance on enhanced monitoring for chromium-6, contact EPA on the Safe Drinking Water Hotline at 1-800-426-4791. (Monday-Friday, 10:00am to 4:00pm EST)

WARM WEATHER TIPS FOR WATER UTILITIES

After the long the cold winter and extremely wet spring, it is time to prepare for the other extreme. The purpose of this article is to get you brainstorming what areas you might have in your water system or community that could experience potential problems or risk due to warm weather. Here are a few areas that we need to check in our community and water utility, we call it our warm weather checklist.

PUMPS and MOTORS:

- Ventilation during summer months is critical. Equipment must be well ventilated to dissipate heat and prevent serious problems. Installation of fans or louvers in doors is very common for summertime operation in some buildings. It may be necessary to remove some of the insulation in well house ceilings to assure good ventilation.
- One of the biggest causes of premature failure of three-phase motors is the problem caused when the electrical leads at the motor become loose and short out. This happens for many reasons and thermal expansion is one of them. Heating and cooling cause unsuspected problems in many ways. It is always a good idea to check these leads during maintenance procedures.
- When temperatures rise and the equipment is being put to the test, it is very common to trip the overloads of motors due to increased current draw. The overload protection is there to save the equipment from just that, overload due to too much current draw. It is very popular to think that a failure condition is caused by weak heaters due to age.
- The effects of voltage unbalance are often overlooked. A small percentage of voltage unbalance will result in a much larger percentage current unbalance. The temperature rise of the motor operating at a particular load and percentage voltage unbalance will be greater than the motor with balanced voltage. It is necessary to understand why current overloads occur. Always have the condition checked by a qualified electrician. Never overlook an overload condition if it occurs, no matter how infrequently. It never fails that the problem will become worse when you really need the equipment
- The operating temperature of motors during hot weather is often questioned. We find we are concerned because “I used to be able to keep my hand on it” or “the old motor never ran that hot”. These are valid concerns, but the actual operating temperature should be documented either with a magnetic or infrared thermometer. Knowing the operating temperature and the ambient temperature (temperature when the unit is at rest), will help you understand the safe operating range of the motor. You will also need to know the insulation class of the motor. Usually the class rating will either be “A” or “B”, maximum operating temperature of 95 degrees C (205 degrees F), and 110 degrees C (230 degrees F), respectively. These are the two most common classes of insulation.
- It makes good sense to keep the ambient temperature as cool as possible with ventilation when motors are operating in hot environments.
- Other precautions can be taken, like high temperature grease, but given the rated temperature of class “A” and “B” insulation, these measures should not be necessary. If you are ever in doubt about your equipment, always refer to the O&M manual or consult the supplier.

AERATORS, SETTLING BASINS, and FILTERS:

- Many times increased flows through settling basins have resulted in shortened filter runs or plugged filters.
- Aerators that are fouled or partially plugged only become apparent when they are pushed to maximum capacity.

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WARM WEATHER TIPS FOR WATER UTILITIES (Continued)

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- Operators of small systems need to be careful whenever they clean aerators or settling basins for many reasons
 - Personal safety
 - Cause and effect of the treatment train – what happens to one may have a direct effect on the other
- Basins that have not been thoroughly or properly cleaned result in plugged pressure filters that need additional attention.
- Chemical feed rates may need to be increased.

PRODUCTION WELLS:

- If you have not changed the oil in your vertical turbine motor in the past year, do it now and start a program where you do it this time yearly, or at least once a year.
- If you do not have a vertical motor that uses oil, grease bearings instead
- Check stuffing boxes, if packing glands need adjusted, adjust them accordingly
- Check any drains on pump heads or any drain lines to ensure they are draining properly
- When weather breaks and does not fall below freezing on a daily/nightly basis, it is safe to remove heat lamps and heat tape, store this in a safe area for use next year
- Remove insulation from around discharge piping if it has gotten wet, this helps prevent mold from starting to grow
- If you have noticed any issues pertaining to well production or maintenance, fix it now as you will not have sufficient time when peak demand season starts
- While you are at your well checking these other items, put a pressure gauge on well and record operating pressure, this will establish a base line for the year and if you think you are having a problem you can start by checking pressure at well and from there go into other trouble shooting items
- Check air release to ensure operating properly and did not freeze and fail over winter
- If equipped with a valve vault, open up and air out, if not equipped with sump pump this would be the time to pump it out and check fittings and piping to see if you have any leaks or other issues

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WARM WEATHER TIPS FOR WATER UTILITIES (Continued)

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HYDRANTS:

- Bi-annual flushing
- Checking oil reservoirs/grease
- Greasing caps (food grade grease preferred)
- If hydrant is operational
- Hydrant valve is on all the way
- Verify hydrant is in data base (hydrant card)
- Overall Condition
- Does it Drain?

VALVES:

- Accessible
- Operate correctly (close and open)
- Verify valve is in data base (valve card)
- Location

TOWERS:

- Secured
- Screens are on overflows and no obstructions (bee nests, or ladybugs!!)
- If equipped, is aircraft warning light operational?
- Outside appearance (does it need power washed, painted?)

EMERGENCY STOCK ITEMS:

- Repair Clamps
- MJ Sleeves
- Compression Fittings
- Roll Plastic
- Lids and Rings
- Saddles(3/4 and 1")
- Valve Boxes (tops and bottoms)
- Back-Up Generators (pull behinds, portables, etc.)

SECURITY NEEDS:

While conducting warm weather inspections, this would be a good time to check security needs for each site.

- Secure accessways with chains and/or locks
- Clear fences and make sure they are properly maintained
- Close and lock gates
- Make sure any security or alarms are all operational

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WARM WEATHER TIPS FOR WATER UTILITIES (Continued)

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RESERVOIRS and DAMS:

- Inspect for cracks, etc.
- Check for algae growth
- Check rip-rap for erosion, replacement, etc.
- Remove vegetation

MISCELLANEOUS ITEMS:

- Power Surge Protectors
- Back-Up Power Sources (generators, batteries, etc.)

Good intentions may result in compromised water quality if we don't pay attention to details.

Having said all this, it is important to remember that preventative maintenance is necessary for every type of equipment we use in order to get the service life that it was intended to give.

Safety has to be at the forefront of all that we do. This is especially true when dealing with the electrical components of our treatment facilities.

MARK YOUR CALENDARS!! (Continued)

(Continued from page 2)

September 22, 2011 – Alliance of Indiana Rural Water – Scholarship Golf Outing; Phil Harris Golf Course. Contact: Jim Soper or Laura Vidal at 888-937-4992 or visit the Alliance website at www.inh2o.org

September 23, 2011 – Indiana Rural Water Association – Process Instrument Verification for Water & Wastewater Workshop; Warsaw, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

October 4, 2011 – Indiana Rural Water Association – Blood-borne Pathogens; Hamilton, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

October 6, 2011 - Wastewater Treatment Plant Operator Certification Examination. Application must have been post-marked by August 22, 2011. Contact: Rebecca McMonigle, IDEM, 317-232-8791, rmcmonig@idem.in.gov

October 19-20, 2011 – Alliance of Indiana Rural Water – Fall Conference; Swan Lake Golf Resort; Plymouth, IN. Contact: Jim Soper or Laura Vidal at 888-937-4992 or visit the Alliance website at www.inh2o.org

December 5 – 7, 2011 – Indiana Rural Water Association – 2011 Water Institute (Fall Conference) – Holiday Inn Conference Center; Columbus, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

February 21 – 23, 2012 – Indiana Section American Water Works Association – Annual Conference – Indianapolis, Indiana. Contact: InAWWA at 866-213-2796 (toll free); or visit the InAWWA website at www.inawwa.org

April 1, 2012 – Long Term 2 Enhanced Surface Water Treatment Rule Deadline – Systems serving 100,000 or more people – Comply with additional LT2 treatment technique requirements. Contact: Yasser Elkhatib at 317-234-7451, yelkhati2@idem.in.gov OR Adrian Lugo-Martinez at 317-234-7456, alugomar@idem.in.gov OR Stacy Jones at 317-234-7454, sjones@idem.in.gov. Other information on the LT2 Rule can be obtained from www.epa.gov/safewater/disinfection/lt2

April 1, 2012 – Stage 2 Disinfection By-Products Rule Deadline – Systems serving 100,000 or more people – Begin Stage 2 Compliance Monitoring. Contact: Peter Poon at 317-234-7441, ppoon@idem.in.gov OR Stacy Jones at 317-234-7454, sjones@idem.in.gov. Other information on the DBPR can be obtained from www.epa.gov/safewater/disinfection/stage2

HHS RECOMMENDS LOWERING FLUORIDE LEVELS IN DRINKING WATER

By: Jaimie Foreman; Carmel Utilities

On January 7, 2011, the U.S. Department of Health and Human Services (HHS) published a recommendation stating that the fluoride levels in community water supplies be reduced to the low end of the current optimal range to a concentration of 0.70 mg/L.

This recommendation was proposed as new scientific studies and risk assessments have indicated that children may be overexposed to fluoride. This is due to high fluid intake or natural fluoride levels in their community are at or exceed the maximum level. Fluoride is also commonly found in most mouthwashes, toothpastes, and in some beverages and foods.

Fluoride has been voluntarily added to public water supplies since 1945. In 1962 the U.S. Public Health Service (USPHS) recommended that for optimal fluoridation, concentrations be set at 0.70 – 1.20 mg/L, based on ambient air temperatures in different geographical areas. The theory was that children in warmer climates were likely to consume more water than children in colder climates. Therefore, the exposure to fluoride was more likely in warmer climates and less fluoride was needed. As part of a current assessment, no convincing data showed a relationship between ambient air temperature and fluid intake, thus there is no longer a need to have an optimal range.

The addition of fluoride to community water supplies is a major factor responsible for the decline of the prevalence and severity of tooth decay during the 2nd half of the 20th century. Adding fluoride to community water is the most cost effective way to reach a large number of people. For every \$1 spent on community fluoridation, it is estimated to save \$38 in dental maintenance. Studies have shown that by reducing the fluoride concentration to 0.70 mg/L, significant prevention in tooth decay can still be achieved and also reducing the risk of fluorosis, which is pitting in the tooth's enamel.

HHS filed the proposed recommendation in the Federal Register, opening it up for public commenting for 30 days. In late spring of 2011, HHS will publish the final recommendation based on the information provided by the review panel, that is composed of representatives from U.S. EPA, U.S. Department of Agriculture, Agency for Healthcare Research and Quality, Center for Disease Control and Prevention, National Institutes of Health and Food and Drug Administration.

Until the final recommendation is published, Indiana State Department of Health (ISDH) is advising public water systems to continue to operate within the optimal range of 0.70 mg/L- 1.20 mg/L. If the proposed recommendation of reducing the fluoride concentration to 0.70 mg/L is finalized, then the feed settings on fluoridation equipment will need to be adjusted to meet the new recommendation. The chart below provides feed settings that should be appropriate starting points in adjusting fluoridation equipment to meet the new recommendation.

<i>Feed Settings for a Fluoride Concentration of 0.70 mg/L</i>	
<i>Sodium Fluoride</i>	<i>1 gallon of fluoride solution to 25,000 gallons of treated water</i>
<i>Fluorosilicic Acid</i>	<i>2.4 gallons of acid to 1,000,000 gallons of treated water</i>
<i>Sodium Fluorosilicate (dry)</i>	<i>8.4 lbs. to 1,000,000 gallons of treated water</i>

The data provided in the chart is based off of a natural fluoride level of 0.10 mg/L. Feed rates for each community water supply will be different.

As with any feeding system adjustments, it is recommended that these changes be made in small increments, allowing stabilization over a few days to determine if further adjustments should be made.

Once the HHS publishes the final recommendation, field staff from ISDH will be assisting water systems in adjusting setpoints to achieve optimal fluoridation. ISDH will be determining feed rates on a case by case basis and potentially retesting the natural fluoride levels in communities that have a natural fluoride level at 0.50 mg/L or higher, as the fluoride feed rate will be very minimal.

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INDIANA 811 SAFETY MESSAGE TALKING POINTS FOR SAFETY MEETINGS

Several Indiana 811 stakeholders often begin each meeting with a safety message. Below Indiana 811 has provided talking points that can be presented at your company's next safety meeting on or around August 11 to help educate employees about 811 and its role in protecting the safety of workers, customers and entire communities.

Key messages:

- Every digging project requires a call to Indiana 811.
- Calling Indiana 811 a few days prior to digging notifies utility companies of the intent to dig and gives representatives time to mark the appropriate lines.
- August 11 is 8/11 on the calendar, a natural reminder for people to call Indiana 811.

How 811 works:

- 811 can be called from anywhere in the country.
- A representative from your local one call center will answer the call to find out the location and description of the digging site.
- The affected utility companies will be notified of the intent to dig.
- The utility companies will send a professional locator to the digging site to identify and mark the approximate location of the underground lines.
- When lines have been marked, you are free to dig carefully around the marks.

Types of projects:

- Lines need to be marked for each separate project, such as installing a rural mailbox, putting up a fence, planting trees, cleaning up after a natural disaster or major storm, or building a deck.
- Call a few days prior to digging to allow time for professional locators to mark the utility lines.
- Even if you've hired a contractor, make sure the contractor calls Indiana 811 to have lines marked.

Consequences:

- There are more than 170,000 unintentional hits of underground lines annually across the country, a figure that equals once every three minutes.
- Hitting an underground utility line while digging can cause serious injuries, disrupt service to entire neighborhoods, and potentially result in fines and repair costs.

More information:

- To learn more about Indiana 811, visit www.indiana811.org.

HHS RECOMMENDS LOWERING FLUORIDE LEVELS IN DRINKING WATER (Continued)

(Continued from page 10)

Given the entire specifics of each community water supply, ISDH strongly recommends waiting on the new HHS recommendations before making any adjustments to fluoride concentrations.

U.S. EPA will also be reviewing the regulations for fluoride in drinking water. No timeline has been determined at this time for the completion of this review.

For additional information or inquiries for each community water supply, you may contact Mr. Jim Powers, Manager of Water Fluoridation Program with ISDH at 317-503-1816 or by email at jpowers@isdh.in.gov. If you opt to email, please be sure to include the name of your public water supply along with your PWS ID number.

INDIANA 811 LAW CHANGE—FREQUENTLY ASKED QUESTIONS

1. Is hand digging still exempt from calling before you dig?
Yes, but only if you are digging under 12" deep on your own property. But, if you damage an underground facility you are still responsible for the damages. Indiana 811 recommends that you always "Know What's Below" and call 811 before you Dig.
2. I see that an exemption has been added for probing to determine the extent of gas migration. Does this include all probing?
No, the exemption is only allowed for determining where a gas leak is occurring. It does not exempt them from damages that they may cause to other buried facilities during the probing.
3. Who needs to be a member of Indiana 811?
All operators of underground facilities with the exception of those facility owners whose facilities are on their property and are used solely for their own benefit, are required to be members of Indiana 811
4. If I do not become a member of Indiana 811 what are the consequences?
In addition to not being able to collect damages from an excavator that strikes your facility, penalties have been added that can reach up to \$100 per each day of non-compliance. Penalties can start to be assessed on January 1, 2010.
5. What is this white lining I am hearing about?
White lining is the process that an excavator uses to identify the location of their excavation using white flags or paint marks. It is also a Common Ground Alliance best practice.
6. When am I required to white line my excavation site?
White lining is required when an excavator cannot accurately identify where they will be digging on the locate request. The following are the minimum requirements for a locate request. Street Address, Legal Description of the location, A highway location using highway mile markers or cross streets.
7. What is the maximum size of an excavation site that may be included on a single locate request?
The longstanding Indiana 811 policy on this is now included in the Law. Within an incorporated area an excavator may put 1,500 linear feet on each request. In an unincorporated area they may put 2,500 linear feet.
8. **What happens if I call in a false emergency locate request?**
The law in Indiana defines a person performing an emergency excavation or demolition as one who is involved with repairs or improvements that involve an imminent danger to life, health, property or loss of service. After July 1st 2009 a person that calls in a false emergency locate request could be fined up to \$1,000.
9. **Who can be fined?**
Anyone, as long as one of the fineable offenses in the law has been broken
10. **How will the fines be levied?**
The governor has appointed an advisory committee to create and oversee the new penalty section of the law. A rule making process has been started to set up the rules guiding the committee.
11. **As an excavator what can I be fined for?**
Fining is the last option given to the Advisory Committee. Warning letters and education are at the forefront of the tools given to them. With the exception of the fines for not being a member of Indiana 811 and for calling in false emergencies the fines will be restricted to only violations to the law when a pipeline or local gas distribution company's lines are involved. Most fines have a maximum of \$10,000 per occurrence.
12. **Where does the money from fines go?**
The money collected from fines will go into an account to pay for training and public awareness activities.

INDIANA CONTRIBUTED COLUMN FOR NSDM

SAMPLE PRESS RELEASE OR CUSTOMER FLYER MAKE A CALL TO 811 PART OF YOUR SPRINGTIME PLANS

Contributed by: *[Insert full name, Title of stakeholder executive]*

Spring is finally here! With the snow melted and the ground ready for planting, eager homeowners like you are gearing up to start those outdoor digging projects. Before you reach for that shovel to start digging, remember to contact Indiana 811 by simply calling 811 to ensure that your buried utility lines are marked.

The Common Ground Alliance and its 1,400 members, including *[insert stakeholder]*, recognized April as National Safe Digging Month through statewide outreach and local events. For more information, visit *[Insert stakeholder URL]* or www.indiana811.org.

National Safe Digging Month was designated to remind Indiana residents that our land is made up of a complex underground infrastructure of pipelines, wires and cables. Striking an underground utility line while digging can cause harm to you or those around you, disrupt service to an entire neighborhood, and potentially result in fines and repair costs.

A call must be placed to 811 before **every** digging project, from simple landscaping projects like planting trees or shrubs, to building a deck or installing a rural mailbox.

Here's how it works:

- One free, simple phone call to 811 makes it easy for Indiana 811 to notify all appropriate member utility companies of your intent to dig.
- Call at least two full working days prior to digging to ensure enough time for utility lines to be properly marked. For example, if you plan to dig on the weekend, call by Wednesday.
- When you call 811, a representative from Indiana 811 will ask for the location and description of your digging project.
- Indiana 811 will notify affected utility companies, who will then send a professional locator to the proposed dig site to mark the approximate location of your lines.
- Once lines have been properly marked, roll up those sleeves and carefully dig around the marked areas.

There are 170,000 underground utilities damaged annually across the nation, and one out of every three incidents is the result of not calling 811. Don't become part of the statistic – make sure to call 811!

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Indiana 811 Fact Sheet



What is 811?

811 is the FCC-designated national three-digit number created to eliminate the confusion of multiple "Call Before You Dig" numbers across the country. The quick and efficient one call service will notify the subscribing local utilities, which then send locating technicians to the requested site to mark the approximate locations of underground lines. The call is free of charge in Indiana.

How does Indiana 811 work?

- Call Indiana 811 at least two full working days (but no more than 20 calendar days) before you dig in Indiana.
- Indiana 811 will notify subscribing underground facility operators to investigate underground lines on your project site.
- The subscribing utilities will mark their underground facilities with paint or flags where appropriate.
- After the lines have been marked, do not use mechanized equipment within two feet on either side of the buried facility.
- For more information, visit www.indiana811.org.

What information do I need on-hand when calling 811?

- Your name and phone number
- Contractor name, address and phone number, when applicable
- County where excavation will occur
- Township where excavation will occur
- Street address where excavation will occur
- Nearest cross street to your project
- Type of work you will be doing
- How deep you will be digging
- What area of your property do you need to have located (e.g. front of property, back of property, etc.)
- Site contact name and their phone number



Frequently Asked Questions:

Why should I call Indiana 811?

- To prevent danger to your life, limbs or property or that of a family, friend, neighbor or coworker.

If I am only digging a few inches, do I still need to call Indiana 811?

- Yes, you never know how deep or shallow the facilities may be buried.

How do the utility companies mark my property?

- The local electric, gas, water/sewer, and telecommunications utilities will visit your property and mark the digging site for free using environmentally friendly paint. Municipal water and sewer entities may charge a fee if the work being done is performed in the public right of way or easement. Most homeowner projects are performed outside of these areas and would not incur any charges.

What happens if no one shows up to mark the lines within two working days?

- Contact Indiana 811 and issue a second request. This allows you to verify that all of the information given to us originally is correct. This does not require that you give an additional two working days notice.

Who do I contact if I have questions about the markings?

- Call Indiana 811.

What can happen if I don't call Indiana 811?

- Digging without knowing the precise location of underground facilities could result in damage to the utility lines, serious human injuries, inconvenient outages and other consequences.

Does someone need to be home for the utility marking to take place?

- In most cases, no. However, consider leaving fence gates unlocked, and keep your pets indoors so the utility locators can access the entire property if needed.

What do I do if I hit a buried facility?

- In all cases, you need to call Indiana 811 to report the damage, as well as the utility company of the line that was damaged. Should you hit a gas line, you should evacuate everyone from the area to a safe upwind distance of at least 250 feet. After moving everyone to safety, call 911 and then call Indiana811 to report the damaged gas line.

What is the safest way to dig around buried facilities — especially gas or electric lines?

- Always dig a "test pit" to determine the exact location of buried facilities. This task should be done using hand or vacuum excavations.

Small Systems Committee
INDIANA SECTION AWWA

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www.awwa.org

EPA Drinking
Water Hotline:
www.epa.gov/OGWDW



MARK YOUR CALENDARS!!

To add dates to this section,
contact any Small Systems
Committee Member.

June 1, 2011 – Indiana Rural Water Association – Water Main and Pipe Products; Ford Meter Box; Wabash, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

June 7, 2011 – Indiana Rural Water Association – W3 Operator Symposium; Culy Construction Co.; Winchester, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

June 21, 2011 – AWWA/IRWA/InABPA – Introduction to Backflow and Cross Connection Control; Stucker Fork Water Utility; Austin, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

June 22, 2011 – AWWA/IRWA/InABPA – Introduction to Backflow and Cross Connection Control; Huntingburg, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

June 29, 2011 – Indiana Rural Water Association – Building Support For Utility Needs; Columbus, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

July 21, 2011 – Indiana Rural Water Association – Confined Space Entry/Competent Person – Chandler, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

August 10, 2011 – IRWA/AWWA Operator Boot Camp – Miami County Fairgrounds; Peru, Indiana. Contact: Odetta Cadwell at 317-402-7349; MaryJane Miller at 866-895-4792 (toll free) or 812-988-6631; or visit the IRWA website at www.indianaruralwater.org

August 22, 2011 – Wastewater Treatment Plant Operator Certification Examination Application submission must be postmarked by this date. The application can be downloaded from IDEM's website at <http://www.in.gov/icpr/webfile/formsdiv/47289.pdf>. The Wastewater Treatment Plant Operator Certification Examination will be given October 6, 2011. Contact: Rebecca McMonigle, IDEM, 317-232-8791, rmcmonig@idem.in.gov.

(Continued on page 2)

Please visit AWWA's website (www.awwa.org) for additional information regarding continuing education and professional development offerings. Materials and instruction are available through a variety of media, from traditional seminars to online courses, teleconferences, and webcasts.