



Summer 2009

## WPCA explores tank deterioration issues

*By Ann Gryphan, Essie Kammer Group*

The Wisconsin Precast Concrete Association is continuing its search for answers about deteriorating concrete tanks being discovered in certain parts of the state, particularly in eastern Wisconsin.

Some county regulators and septic installers in the state have been discussing deteriorating concrete septic tanks that are being identified in some pockets of the state, particularly in regions that might have high levels of hydrogen sulfide present in the groundwater. The WPCA is concerned about this and the negative implications it might have for the entire precast concrete industry.

A similar occurrence in Brown County was investigated by the Department of Commerce in 2006 and the concrete was believed to be primarily at fault, moreso than the sulfide content of the groundwater. The determination in that case—prepared by Ross Fugill of the Department of Commerce—was as follows:

“This letter will serve as a determination of most probable cause of the extensive corrosion of the concrete above the water line in the 1000/650 septic/pump tank installed in 2002 at the referenced dwelling. You reported this corrosion to me over the phone in early March of this year and was confirmed by observation in the joint onsite investigation on March 17, 2006.

The observations made in the 3/17/06 investigation strongly indicated that the concrete in the interior of

both the pump and septic chamber had been attacked by a well-known chemical phenomenon involving the electrochemical reduction of oxidized sulfur forms to hydrogen sulfide by anaerobic processes in the septic chamber, with subsequent outgassing, and oxidation to sulfate as sulfuric acid above the water line. What could not be determined by observation on 3/17/06 was whether the extensive and rapid corrosion was due to uncommonly high sulfur concentrations in the source water or to the tank concrete being uncommonly susceptible to a corrosive environment common to domestic wastewater.

We needed to discriminate between these two probable causes. Water samples were taken 3/17/06 from the dwelling tap water, and the wastewater from the septic and pump chambers of the tank. These samples were analyzed for sulfur compounds by Badger Laboratories in Green Bay. Lab results were received 3/31/06. I consulted with the WDNR groundwater program to determine if these results indicated uncommonly high potential to produce concrete corrosion.

The conclusion I reached based upon consultation with Dave Johnson, WDNR, was that corrosive potential of the Dequaine source water is not uncommonly high for northeast Wisconsin and is not a probable cause of the accelerated corrosion of the tank concrete. Therefore, the most probable cause

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# Rail project opportunities for precasters

The WPCA has been informed that the high-speed rail project between Madison-Milwaukee is likely to receive federal funding through the economic stimulus package and that opportunities might be available for you to manufacture precast concrete products for this project.

WPCA Executive Director Patrick Essie has been in communication with officials from the Wisconsin Department of Transportation about this project, trying to determine the product needs and specs. So far, Essie has identified box culverts as one precast concrete product needed in this large project.

The WPCA wants to make sure that our members have the opportunity to bid on jobs associated with this rail project and that you can meet whatever specs are required.

Gov. Jim Doyle and other Midwestern governors met with Vice President Joe Biden earlier this month to begin the process of securing federal funding for high-speed rail projects. The 110-mph passenger train line from Milwaukee to Madison is expected to cost \$519 million.

Essie hopes to be able to share more specifics with you about this rail project at our summer convention in July.

CALENDAR OF EVENTS

*July 10 & 11, 2009*  
WPCA Summer Conference  
Chula Vista Resort  
Wisconsin Dells, Wisconsin

# Determination on 2006 case of deteriorating tank

*From Page 1*

was susceptible concrete of the Green Acres tank. This conclusion is supported by the fact that we have received several reports and complaints within the past year of similar problems with Green Acres tanks, but have not received reports or complains about other manufactured concrete tanks in the region receiving similar source water.

Please note that this determination of most probable cause does not mean that the Department has discovered at this time a noncompliance with any of the specifications in the statutes, code, or product approval conditions that apply to Green Acres products. What it has done is to narrow the focus to the manufacture of the Green Acres tanks rather than

source water. The Department will follow up with a special investigation to verify product approval specifications in the manufacture of Green Acres pre-cast concrete POWTS tanks.

If you, or any of the involved parties, wish to discuss this matter further, please contact Mike Beckwith at 608-266-6742 or me at the telephone number listed below.

Sincerely, Ross J. Fugill, Wastewater Specialist”

The WPCA has been informed that DNR representatives have mentioned to others that other areas of the state have much higher sulfide content in their

groundwater than the areas found to have deteriorating concrete tanks, therefore some believe that the water may not likely be the problem, although higher sulfide in the water may compound an effect on concrete.

Tests are currently being conducted on a deteriorating concrete tank excavated in Door County to determine things such as the water-to-cement ratio used in the tank. We are expecting the results of the tests soon and will share them with WPCA members once available.

We will have Ed Blake, a representative of Xpex, a waterproofing compound, as a featured speaker at our summer convention in July, who will discuss “Concrete Protection with Crystalline Technology.” Come prepared with your questions.

We will discuss this issue more at our meeting in July, and also continue our search for the cause and solutions to this problem, so that a few incidents of faulty tanks do not negatively impact the entire industry. The WPCA is taking this issue very seriously, and we have responded by mailing out a postcard to installers in Door, Sheboygan and Manitowoc counties, promoting the benefits of precast concrete.

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## Welcome, newest WPCA members

The Wisconsin Precast Concrete Association would like to welcome our two newest associate members that joined earlier this year—Neenah Foundry and Turmac.

Hopefully everyone got the chance to meet Ralph at our winter convention in January and we hope to see representatives of both companies at future events, as well.

For a complete list of WPCA manufacturer and associate members, go to the WPCA website, [www.wiprecast.org](http://www.wiprecast.org)

### Neenah Foundry

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## In the news

**SPANCRETE:** Waukesha-based Spancrete has acquired MobileGreen Precast, the nation's first mobile precast company. The acquisition enables Spancrete to expand its customer base to the continental U.S. The mobile precast model involves developing temporary precast plants near a project, reducing transportation requirements and resulting in reduced construction costs, the company said. Spancrete is a provider of architectural and structural precast concrete products to the construction industry.

**JW PETERS:** Burlington precast concrete producer JW Peters Inc. is combining its administrative, accounting and engineering operations with another precast concrete producer, Des Moines-based IPC Inc. The combination eliminated 8-10 jobs in Burlington. Both companies, which are owned by Cretex Cos., continue to operate under their trade names, and the Burlington plant will remain open. However, J.W. Peters notified the state in March that it expects to temporarily lay off 126 people. Peters' products include wall panels, riser sections for stadiums and modular jail cells.



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# Summer Convention Schedule of Events

Don't forget to sign up for the 2009 Summer Convention, scheduled for July 10-11 at the Chula Vista Resort in Wisconsin Dells, Wis. We have a number of important topics to discuss—legislative, regulatory, industry promotions and business opportunities— as well as fun outings such as a golf tournament and river cruise.

The Chula Vista Resort in Wisconsin Dells is a fun place to spend the weekend in the summer, so bring the whole family and make a mini-vacation out of it! Bring the kids or grandkids and take advantage of the large indoor and outdoor waterparks.

The WPCA room block will be released TODAY, June 10, so make sure to call for your hotel reservations, if you have not yet done so, 800-388-4782.

## Friday, July 10, 2009

- 5 PM Registration, Cocktails sponsored by Concrete Sealants
- 6 PM Dinner
- 7:30 PM Evening entertainment— river cruise Sponsored in part by W.R. Grace Co.

## Saturday, July 11, 2009

- 7:30 AM Breakfast at Chula Vista Resort
- 8:15 AM Welcome
- 8:30 AM “Labor Law Update: The Employee Free Choice Act and Other Things You NEED To Know,” Daniel Barker, Melli Law Firm, Madison, Wis.
- 9:30 AM “Concrete Protection with Crystalline Technology,” Ed Blake, eblake & associates, Manitowoc, Wis.
- 10:30 AM “Legislative Update,” Patrick Essie
- 11 AM WPCA Business/ Member Meeting
- Noon. Lunch, Chula Vista Resort
- 1:30 PM Claire McQuestion Memorial Golf Outing, Chula Vista Golf Course

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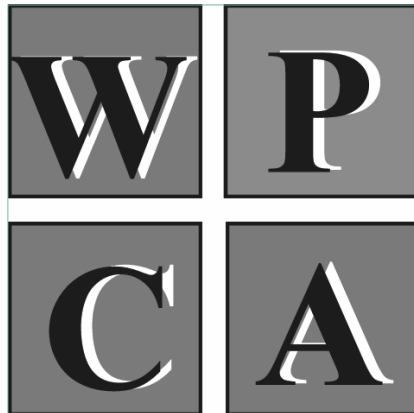


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