Notes From The Director

In this month’s issue we focus on precast concrete septic tanks and turn the spotlight on the PCANY Certification Program for Water & Wastewater Products. The precast industry is dedicated to protecting the environment with sustainable and watertight products.

In the spirit of Thanksgiving I would like to take the opportunity to thank all of our members for your continued support. And, if you are not currently a member of PCANY, you can sign up at our website. With four categories of membership, there are several ways to become involved and support our mission of educating stakeholders on the many applications and benefits of precast concrete.

I would also be remiss if I did not say “thank you” to our men and women in uniform including those in the service to our country and the first responders who selflessly dedicate their lives to keeping us safe.

Warmest Regards,

Ronald E. Thornton, P.E.

In This Issue

- PCANY Certified Tanks are Water-tight and Structurally Sound.
- Industry News & Events

Septic tank being vacuum tested in-place prior to backfill to ensure connections are watertight. Photo by Flemington Precast & Supply LLC
PCANY Certified Tanks are Watertight and Structurally Sound

Submitted by Ronald Thornton, P.E.

Septic tanks are considered what is known as a primary treatment vessel for domestic or commercial wastewater flows, typically used in areas where municipal treatment facilities are not available. The term “primary” refers to the septic tanks function, which is the initial settlement and anaerobic digestion process to reduce solids and organic matter. Secondary treatment occurs when the tank effluent flows into a drain field, also known as leaching or seepage field. The job of a leach field is to further remove contaminates and impurities through percolation and return clean water back into the environment. While leach fields are very effective, they are also somewhat fragile and subject to pre-mature failure if too many solids are passed through the septic tank. The cost to repair or replace a leach field can run anywhere from $5000 to $20,000 which makes the proper selection and maintenance of a septic tank vital to extending the life of the system. Here are some things to consider:

♦ Make sure the tank is properly sized for the dwelling—New York State Department of Health regulations specify the minimum required tank capacity based on the number of bedrooms.

♦ Dual-compartment tanks provide a 2-stage settling process where most of the settlement occurs in the first compartment making up two-thirds of the total volume.

♦ Have tanks pumped out on a regular schedule. Every 3—5 years is recommended depending on usage and how many people reside in the household.

♦ Consider an effluent filter. Filters are available from a variety of sources and are very effective at reducing the amount of solids flowing into the leach field. However, filters do require periodic cleaning and clogged filters can restrict normal flows out of the tank.

♦ Consider an aerobic treatment system. Specialized aerobic tanks are equipped with a mechanical aerator that delivers oxygen into the sewage chamber allowing bacteria to thrive which accelerates the treatment process. Aerobic systems provide a higher quality effluent over conventional systems but do require an electrical hook-up and regular monitoring and maintenance.

♦ Ensure that septic tanks are watertight and structurally sound.

PCANY has taken a leading role in the quality of septic tanks through its Certification Program for Water and Wastewater Products. Originally established in 2004, the volunteer program is intended to provide a level of assurance to the public and approving agencies that precast concrete septic tanks have been subjected to rigorous testing and evaluation.
To be considered for listing, each producer must submit detailed product drawings and design computations signed and sealed by a NYS registered professional engineer. Producers must also physically test each of their listed tanks for both watertightness and structural integrity in accordance with ASTM C1227 “Standard Specification for Precast Concrete Septic Tanks”. To be considered watertight, a tank must withstand a vacuum pressure of 4” of mercury (Hg) for 5 minutes without any loss of pressure.

For structural integrity, a tank must withstand an applied load equal to at least 1.5 times the anticipated actual load. Anticipated loads include vertical dead and live loads as well as lateral soil pressure. The minimum design service load on a septic tank shall be no less than 300psf. This equates to approximately 7”Hg when vacuum tested and with safety factor applied.

Certified tanks can be readily identified by the distinctive green “PCANY LISTED” tag cast into each structure.

For more information on PCANY Listed Septic Tanks and other wastewater products, please visit our website and the PCANY Buyer’s Guide.
Registration is Open for The Precast Show 2019

Next year’s Precast Show will be at the brand new Kentucky International Convention Center in Louisville, KY from Feb 28 to March 2, 2019 (Information & Registration)

OSHA Crane Requirements Take Effect Dec 9

NPCA reports that OHSA will require certification to operate most cranes having a lift capacity of 2000lbs or more. (More Information)

Thruway Authority Projects to Meet NYSDOT QA/QC Program for Precast Products

Effective December 1, 2018, all precast work for NYSTA that references NYSDOT Specification 704-03 must be fabricated under the NYSDOT QA/QC plan including all elements of Materials Procedure MP09-02. For more information contact NYSDOT Materials Bureau at 518-485-7056.