



Published as an informational service to Owners and Engineers of Steel Water Storage Tanks by TANK INDUSTRY CONSULTANTS
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CHAIRMAN'S CORNER

In Tank Talk 16[®] I announced some changes that had taken place at TANK INDUSTRY CONSULTANTS--Steve Roetter was named President, Bill Daugherty and Chip Stein were named Vice Presidents, and I adopted the catch-all title of Chief Executive Officer. In Tank Talk 17, I want to announce some changes that we don't plan to make at TIC[®].

Unlike other water tank inspection and engineering firms, TANK INDUSTRY CONSULTANTS does not plan to expand into the petro/chemical field. In the aftermath of the tank failure which caused the Ashland Oil spill, legislation has been enacted which establishes the mandatory testing of underground and above-ground petro/chemical and hazardous materials storage tanks. Many firms that have previously dealt with water storage are jumping on the very lucrative bandwagon, and are now offering their services to the petro/chemical and hazardous materials storage industry. But we at TANK INDUSTRY CONSULTANTS believe that we should continue to do what we do best--design, specify, evaluate, and observe the work in process on water storage tanks. TIC began in the water industry and will continue to service its municipal and private water-purveying customers. Our firm is geared to administer work within the organizational framework in which municipalities, water authorities, and investor-owned water utilities operate, and we enjoy working in this "grass roots" industry.

TANK INDUSTRY CONSULTANTS is a Professional Engineering firm. As such, we are mindful of our duty and obligation to perform engineering services to the very best of our ability. So, when you need help with your potable or fire suppression water storage tanks, give us a call. TANK INDUSTRY CONSULTANTS will continue to offer our clients the finest engineering services for their WATER STORAGE needs.

By the way obviously Tank Talk 16 was very well read. Everyone is asking me how I am enjoying "retirement." Retirement? In the past several months I have worked harder than ever! As advertised, I am still very much involved in the day-to-day operations of TANK INDUSTRY CONSULTANTS. Give me a call if I can be of help to you.

◀ Crone Knoy

P.S. I was surprised and pleased to receive the Steel Structures Painting Council Outstanding Education Award at the recent National Conference. The Award belongs to the TIC organization, not to me. Thanks!

Crone

THE "NIMBY" SYNDROME

In this age of "NIMBY" (Not in MY Back Yard), tank owners are turning to aesthetically pleasing tanks and long-life, environmentally safe coating systems in order to satisfy their communities. "Ugly old" water tanks are being replaced with sleek new tanks and tanks of unusual designs, or rehabilitated using state-of-the-art coating systems that are both pleasing to the eye and environmentally sound. Neighboring communities are engaging in good-natured competition to see whose water tank is the most eye-catching and appealing, and cities and towns are searching for unusual design ideas that will make their new or existing water tank "stand out from the rest" or promote the image they want for their community.

In 1980 the Earthoid was built to satisfy the concerns of the community and overcome physical conrestraints faced by the Washington Suburban Sanitary Commission. When public attitude made conventional-type storage structures no longer welcome, the Commission had a most unusual tank erected. The 2,000,000 gallon tank replicates the earth as seen by astronauts. If you are in the Germantown, MD area, be sure to take a look at this most unique tank.

Not every community is in the market for an Earthoid tank; however, more and more water systems are seeking professional advice for practical but unique new tank designs or paint systems. Some tank owners want to camouflage their tank, and others want to make it stand out. Sometimes communities want a tank design that gives them special recognition or incorporates a special logo.

In some localities, tank owners have been pressured into constructing ground-level and underground reservoirs in order to avoid the issue of constructing a more visible elevated tank. Ground-level reservoirs have their place in a water system, but their utilization in the distribution system frequently means that the water customer must pay for increased pumping costs. Pumps within this type of system operate at maximum demand output during the time of day when electrical power usage (and costs) are highest. Elevated tanks, or ground-level tanks on hills, provide "nature's way" of delivering the water during power outages or pump failure, plus allow the water utility to minimize electrical power costs by reducing peak demand loads.

Whatever the needs and motivations, TANK INDUSTRY CONSULTANTS can take the project from creative conception to functional design--through construction and painting--to a completed project. Our complete engineering services help assure the owner of an environmentally safe, structurally sound, and aesthetically pleasing tank that the community can be proud of.

◀ Bill Daugherty

CHANGE IN AREA CODE -- MARYLAND OFFICE

Effective November 1, 1991, the area code for TIC's® Laurel, Maryland office telephone number is 410 instead of 301. Now, if you're really ready to be confused

The Laurel office FAX number area code will remain 301, and the Washington, D.C. phone number will also still be 301.

The easiest way to explain it is to ask you to change TIC's Baltimore area telephone number--301/880-4004--to 410/880-4004 in your records. All other numbers will remain the same.

And if you forget, don't worry, for the next year Ma Bell will provide a friendly recording to remind you of the change.

TIC WATER STORAGE TANK SEMINARS

Each year, TIC presents a series of two-day seminars entitled "Water Storage Tanks--Design, Construction & Maintenance." This year, the seminars are being held at the following locations on the dates indicated:

Orlando, Florida - January 14 & 15, 1992

Newark, New Jersey - February 4 & 5, 1992

Indianapolis, Indiana - March 10 & 11, 1992

These seminars are designed to familiarize water storage tank owners, operators, consulting engineers, and contractors with the proper methods of tank maintenance, and the proper construction techniques to assure a virtually infinite life for new and existing water storage facilities. For more information and detailed brochures concerning these seminars, please call, FAX or write to:

Linda Reed, TIC Seminar Coordinator

P.O. Box 24359, Speedway, IN 46224

Phone: 317/244-3221 FAX: 317/486-4708

WHY HIRE EXPERTS TO MONITOR WORK IN PROCESS?

Expert observation of a contractor's work on your new tank or tank rehabilitation project is more vitally important today than it has ever been. No longer is it sufficient to evaluate only the degree of blast cleanliness and take wet and dry mil thickness readings of the coating. Now the field technician must also be abreast with the latest in environmental concerns in order to help protect the tank owner and contractor from problems resulting from non-compliance with local, state and federal regulations.

Expert field technicians are on the site to help protect the owner's interests and to observe that the work performed is in compliance with the project specifications, accepted industry standards, and environmental regulations.

The field technician must be capable of safely accessing all areas of a tank in order to properly access the contractor's work. Ground-level, curbside observation of a contractor's work can result in a half-way job--the bottom half. Experience from both the contractor and engineer sides of the fence is especially valuable because it allows the field technician to appreciate both points of view, and can often provide valuable insight into solving problems that must be dealt with on the project.

Qualified field technicians check to see that the repairs performed are in accordance with the project specifications.

Where applicable, they observe the taking of weld radiographs, soil bearing tests, concrete test cylinders, and other testing required by industry standards and the project specifications.

During coating removal and cleaning, the technician's observation helps to assure that the surface preparation is in accordance with the specifications, and that the abrasive/coating debris is contained and isolated for testing in accordance with all EPA guidelines, state and local regulations, and the project specifications. Proper surface preparation is the foundation for a quality coating application. Poor surface preparation will almost always result in premature coating failure.

Proper coating application is essential to achieve the design life of the coating system. Today's high-tech coatings must be properly stored and mixed. Thinners used must be compatible with the specified coating system, and they must be used in the proper proportions. The mixing of the coatings, the batch numbers and mixing ratios used must be monitored and documented. Wet and dry film thickness readings must be taken when applicable to assure a long-life coating system. Atmospheric conditions must be monitored and recorded since many of the coating systems are sensitive to changes in temperature and humidity. The proper ventilation of the interior of the tank must be monitored in order for the coating to cure properly. Holiday testing by the technician gives added assurance that the coating will have no voids or thin spots that will result in premature coating failure.

Reports and project diaries provided by the field technician are the basis for approval or modification of a contractor's requests for progress payments. In cases involving liquidated damages, the reports provide information concerning the number of days worked, number of contractor's personnel on site, and equipment available on the site for the workers to use. Weather conditions and days when work could not be performed are also noted on the reports. On projects with unit pricing as a part of the bid price, the records of the field technician are vital for the proper verification of unit-price work performed or materials supplied.

A poorly applied coating may last a few months or years, whereas with proper surface preparation and coating application, the coating system should adequately protect the surfaces of the tank for fifteen years or more. Not only does the improperly applied coating result in the additional cost of continued repainting, but taking the tank out of service to repaint it every five years instead of once in 15 to 20 years is costly for the tank owner as well. The true cost of work-in-process observation services is difficult to measure, but when the monetary cost is weighed against the potential cost of poor erection or repair techniques, poor surface preparation, improper coating application, or project shut-downs due to fugitive dust and citizens' complaints, the quality, expert observation of the work in process is one of today's best values. "If you can't find the money to do it right ... where will you find the money to do it over?"

◀ Steve Roetter