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Chairman's Corner

By: Crone Knoy

In several previous issues of TANK TALK®, we have explored some of the "hot trends" or popular "buzz words" of the business world, and have reflected on how they apply to our industry in general, and to TANK INDUSTRY CONSULTANTS specifically. When you get right down to it, most of these *new* ideas are really old hat. Most are not new or original thoughts or concepts, just fad emphasis on conventional ideas of what it takes to manage an organization while keeping its objectives in mind. Whoops, there I go...30 years ago it was the "corporate objective," now it is the "organizational mission." (I guess changing the terminology sells new books.)

In this issue, I would like to talk about "Partnering." Within our industry, this is the unique(?) idea that on construction projects, a partnering agreement is reached between the owner, contractor, engineer/architect, and their major sub-elements--an agreement to work together in good faith for the successful completion of the project. At TIC®, it has been our goal for the past 15 years (going on 16 now) to practice the philosophy of partnering by combining the resources of the owner, contractor, consulting engineer, and supplier to successfully complete a project, whether it is a new tank or tank rehabilitation project. Unlike many of life's circumstances where there must be a winner and a loser, successful partnering results in a win-win situation for all parties involved. For years we have had a slide in our seminars which depicts the concept of partnering in terms of what a good set of specifications accomplishes.

Obviously, there are the usual questions of acceptable workmanship or materials which must be resolved during the construction project. Meaningful pre-construction conferences and comprehensive plans and specifications minimize these potential conflicts. While not specifically project related, we have contractor and supplier symposiums which allow an open exchange of ideas, information on new products and technology, methods of compliance with regulations, and other industry associated concerns. We have also had all-day conferences with new tank contractors on an individual company basis where we have shared ideas about why we specify certain design features, and how together we can design and build tanks which will be more maintenance free.

We partner in other ways. We are frequently sub-consultants to firms which have ongoing relationships with

clients. Another way of working within the framework of already existing relationships is to act in tandem with other consultants, working directly with the client, but performing only the tank-related services or perhaps only the evaluation or observation portion of the project in cooperation with the other consultants.

Partnering with clients is an obvious relationship. We try to go further than the "Agreement for Engineering Services" states. We have periodic "client care conferences," where officers of TIC sit down with our client's management team to discuss their level of satisfaction with our services. We come out of these conferences with better insights into how to serve not only that client, but all of our clients.

Within communities affected by the construction or rehabilitation of a water storage tank, we partner with non-contract related parties such as neighbors and neighborhood associations to help promote the community acceptance of the needed work. By doing so, we have been able to successfully allay concerns about the environmental and health-related impact of the project, and lessen the "NIMBY" (Not in MY Backyard) syndrome.

Finally, I want to talk about partnering with our employees. Although in most states, the actual ownership of a professional engineering firm is usually restricted to registered professional engineers, at TIC we involve all of our personnel in our partnering. We have developed an organization and *esprit de corps* in which each employee senses his or her part in satisfying our customers' needs and does their best to see that those needs are met in an effective and efficient manner. As owners and officers, we try to see that each employee is rewarded in both economic and intrinsic ways.

Partnering: *The establishment of relationships which take into consideration the goals of all organizations and individuals associated with a project, maximizing the accomplishment of these goals while completing a project for the Owner in the highest quality and most expeditious manner.* (Crone's Abridged Dictionary.)

Nothing new -- just conducting business in the way it should be done.

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"OK" In My Back Yard

Because of the highly congested and affluent residential area which surrounds the nearly 40-year-old 500,000 gallon "Lee Station Elevated Water Tank," the repair and repainting of the tank posed a number of seemingly impossible challenges for Arlington County (VA) officials. The lead-based coatings on the structure had to be removed in accordance with stringent OSHA and air quality standards, under the watchful eye of environmentally concerned and influential residents of this Washington, D.C. suburb. TANK INDUSTRY CONSULTANTS was engaged to provide engineering and environmental services for the County. Chip Stein, TIC®'s Project Manager for the Lee Street Station Tank, developed a rehabilitation plan which included the design of an extensive community involvement/acceptance and risk communication program, and the utilization of state-of-the-art cleaning and coating technology.

Community Acceptance Program

The purpose of the Community Acceptance Program was to help assure community involvement and understanding throughout the project. The program was broken down into two phases--Public Notification and Community Involvement.

Under the Public Notification phase of the project, several flyers were developed and distributed to residents at critical times during the project. Each flyer included information about the upcoming work and how it would affect the residents, and the names and phone numbers of people to contact if there were questions or concerns. Each flyer was personally distributed door-to-door by representatives of TIC, the County--and once a contractor was selected for the project--the contractor's foreman. This personal delivery gave the area residents an opportunity to meet those involved in the actual day-to-day work and to make them more "approachable."

Critical to the successful completion of this project was the cooperation and willing participation of the Donaldson Run Civic Association (DRCA), an association of the homeowners whose properties surround the tank site. DRCA publishes a monthly newsletter in which they included project-related articles prepared by TIC. The articles included an explanation of why the tank was a necessary part of the water distribution system, why the rehabilitation work was necessary, and the credentials and experience of the firms involved in this project.

The most important and productive elements of the public notification phase were the community acceptance meetings. At these meetings representatives of TIC and the County responded to the concerns of the residents. All aspects of the project and detailed explanations of why the work was required were discussed. The Donaldson Run Civic Association also formed a subcommittee to help communicate information to the affected homeowners. The subcommittee included an environmental attorney and a physician, both of whom had property which bordered the tank site.

At one community meeting, coating color charts were distributed to the residents. By allowing the residents to participate in determining the ultimate appearance of the tank, the rehabilitation project was made even more palatable to neighborhood residents. The County also solicited input from DRCA members concerning the hours of the day and days of the week when the contractor would be allowed to work. Once the residents understood how limiting the allowable working hours drastically affected the overall length of project, it was agreed to allow the contractor to work from sunup to sundown, seven days a week. Again, the County's flexibility defused a potentially controversial aspect of the project.

One of the primary concerns of the community was the level of noise that would be generated during this rehabilitation project. In addition to the noise generated from the work being performed on site, the residents were also made aware of the noise that would be produced by the diesel generators required for the operation of the air monitoring equipment. To help eliminate the noise of the diesel generators, residents were reimbursed for the electrical usage for the entire household if they allowed an air monitor to be plugged into an exterior outlet at their home. This proposal was an overwhelming success as more than enough residents volunteered the use of their outlets, which eliminated the local noise of the generators.

Was the project successful? Definitely! The County is extremely pleased that the seemingly impossible project was completed in a timely manner without any complaints from the neighboring homeowners. The potential obstacles which could be encountered due to the location of this tank and the scope of work to be performed were identified and addressed. From the standpoint of the environment, the project was such a success that it was labeled "...a Model of Risk Management, Communication" by the The Arlington Environment, a publication of the Arlingtonians for a Clean Environment. As a result of this rehabilitation project, the people of Arlington County have a water storage tank that should fulfill not only the County's objective of keeping the tank in service for at least another 20 years, but with proper maintenance, the tank can be expected to continue to provide water for the community for another 75 years or more--that's more than 115 years of service in all!!

"Water Storage Tanks Design, Construction and Maintenance"

TIC's two-day water tank seminar will be offered at three sites this winter:

February 1 & 2 - Indianapolis, IN

February 8 & 9 - Long Island, NY

February 16 & 17 - Orlando, FL

These seminars are designed to familiarize attendees with the proper construction and maintenance of steel and concrete storage tanks and other structures. Included will be discussion of current hot topics such as lead abatement, seismic design, regulatory concerns, composite tank construction, and new developments in the AWWA standards.

For more information about the seminars or to register, contact Linda Reed, at 1-800-TANKSEM.

Title X--A New Era in Lead Paint Removal

To fulfill the congressional mandate of Title X, "The Residential Lead-Based Paint Hazard Reduction Act of 1992," the EPA has developed proposed new regulations which will govern lead-based paint removal and deleading activities. The purpose of these new regulations is to ensure that individuals and firms engaged in lead paint removal operations are properly trained through accredited training programs. The proposed standard was published in the Federal Register on September 2, 1994. Within three years of the final publication of Title X, all lead paint removal activities must be in compliance with the standard, and all individuals and firms engaging in lead paint removal activities must be certified. At this time, it is anticipated that full compliance will be required sometime in 1998.

Chip Stein, Vice President of TIC®, participated in a round table discussion of the proposed standard with other representative members of the Steel Structures Painting Council (SSPC). This meeting was held in response to EPA's request that SSPC comment on the proposed regulation. TIC was also contacted by the American Water Works Association (AWWA) and asked to comment on how Title X would impact the membership of AWWA. The following is a synopsis of some of the major points brought out in the SSPC discussions and in Chip's response to AWWA.

Title X requires certification and training of individuals involved in deleading activities. Within Title X there appear to be gaps which the standard does not bridge, and inconsistencies between this standard and other EPA standards such as the Resource Conservation and Recovery Act (RCRA). For instance, RCRA specifically establishes the structure owner as the hazardous waste generator in lead-based paint removal activities. However, in Title X, the contractor is designated as the hazardous waste generator.

As currently written, workers falling under the jurisdiction of Title X are required to complete a minimum of 32 hours of classroom training, hands-on training, and examinations; and persons in supervisory, training, inspection, and risk assessment positions may be required to complete as many as 40 hours. The industry representatives participating in the SSPC round table discussion felt that this amount of training would be excessive and does not take into consideration experienced persons who can demonstrate competence through examinations and hands-on skills assessment. There is also concern that Title X does not address training and testing for workers with limited English reading and writing abilities, or those whose primary language is not English. There is also no commitment from the EPA up to this point that reciprocity between states will exist. This could mean that consultants, contractors, workers, and inspectors will have to be trained and certified in **each state** in which they propose to do work. SSPC is advocating for a modification of this point.

What effect will Title X have on the owners of superstructures such as water storage tanks and other large steel structures? Most steel structures built prior to the early 1970's are likely to have been coated with lead-based paints. The biggest impact that the proposed standard will have is on the economic viability of future maintenance operations on

these steel structures. As currently written, the requirements of Title X will virtually eliminate a large percentage of contracting firms from the marketplace. The costliness of the training required for certification and the fewer number of contracting firms available to do the work will significantly drive up the cost of maintenance activities.

Is there an easy, painless solution to the conflict between regulations designed to protect workers and the economics of maintaining our valuable infrastructure? Probably not. But it is encouraging that the EPA is seeking input from industry associations such as SSPC, and that AWWA is keeping a close watch on the development of the standard. We can only hope that the regulators carefully weigh the comments of those within the industry who will be impacted by the regulation, and attempt to achieve an appropriate balance between the ideal and the realistic.

New Tanks

With all of the industry's emphasis on lead paint removal and the impact of environmental and safety regulations, we sometime lose site of another important facet of the water storage tank industry--the construction of new tanks. At TIC, new tank projects give us the opportunity to "design out" trouble areas which we have pinpointed through our extensive involvement in the rehabilitation of existing tanks. Our new tank designs incorporate lessons learned in tank rehabilitation with the most up-to-date construction techniques and coatings technology to assure tank owners of nearly limitless tank life, while minimizing maintenance requirements.

Tank owners and prospective tank owners come to TIC for new tank engineering services for a number of reasons. Some are replacing old tanks, but a majority are needing additional storage to keep up with current and future growth in the communities they serve. Residential and commercial use of water has steadily risen, and an adequate, continual supply of water is demanded by the public.

On new tank projects, TIC serves as either the prime consultant with responsibility for all aspects of the engineering and preparation of specifications for the new tank, or in some instances, we serve as a sub-consultant. General consultants and city engineers have come to recognize TIC's expertise in the water storage industry and call on us to handle the specifications and construction observation of the tank itself, while they concentrate on their areas of proficiency such as piping and site preparation.

In all, TIC has been involved in more than 100 new tank projects throughout the United States. When elevated storage is called for, our specifications usually offer bidders the option of preparing bids on either a single-pedestal style tank or a legged tank--or both. This gives owners the opportunity to weigh the costs and benefits of the various styles of tanks in order to make an informed decision on what tank is right for their particular community. In situations where elevated storage is not required, ground storage tanks or reservoirs are often preferred.

If you are planning the construction of a new tank, give us a call and we'll explain how the engineering expertise of TIC can help you with your water storage needs.

Industry Update

In each issue of TANK TALK® we try to bring our readers up-to-date on the issues facing our industry, and the standards and regulations being proposed or enacted. Industry standards are particularly slow and arduous to develop and bring to publication since they involve a number of phases of committee drafting, review, and balloting before they are submitted for final approval. But we are pleased to be able to report that revisions of the AWWA Standards D100 and D102 are getting very close to being published after many, many years of development.

D100-94

"Standard for Welded-Steel Tanks for Water Storage"

A synopsis of the changes and revisions included in D100-94 was published in the September 1994 issue of AWWA MainStream. This marked the beginning of the required 30-day appeal period before the Standard goes to final printing and publication. Draft copies of D100-94 are now available from AWWA, and it is anticipated that the Standard will be available in its final form this winter.

As reported previously in TANK TALK, the revised D100 will include many revisions and corrections to update and clarify existing requirements. It will include new data on types and thicknesses of materials to be used in construction, and extensive revision of previous design loads, definitions, reference tables, figures, and equations. Seismic considerations will be addressed and new seismic maps included. The Standard will also update the criteria for accessories such as safety grills, overflows, and screening.

The revised D100 will also include clarification of welding quality control, review, and techniques. The welding inspection guidelines have been revised. There is also a new section on "Structurally Supported Aluminum Dome Roofs."

D102-95 "Standard for Coating Steel Water-Storage Tanks"

Two marathon task force meetings were held at the AWWA Annual Conference and Exposition in New York this past June to iron out differences among D102 revision task force members. Crone Knoy of TANK INDUSTRY CONSULTANTS and Bill Harper of Harper and Associates spearheaded this effort which will hopefully result in the publication of D102-95 prior to the next AWWA Annual Conference in June of 1995.

Coating technology and regulatory requirements have rapidly advanced throughout the history of D102 requiring a number of revisions through the years. The document which was a predecessor of D102 was first written by a joint committee of AWWA and NEWWA in May of 1952. It underwent a number of revisions through the years, and was first published as an AWWA Standard on February 11, 1964. It was then revised in February of 1978. The revision process

began again within a few months of the acceptance of the 1978 standard which was withdrawn from publication several years ago.

The most recent thrust for revision of D102 was initiated in October of 1991. This revision responds to changing technology and regulations requiring the elimination of red lead and zinc chromate to protect worker and public health.

Within D102-95, the interior and exterior coating systems (previously referred to as "painting systems") have been renumbered to distinguish them from the painting systems in previous versions of the Standard. Some of the systems have been rearranged so that similar coating systems are adjacent to each other. In addition, some systems have been eliminated in the new revision, and others added to respond to environmental concerns.

For information on either of these AWWA Standards, call or write to the AWWA Standards Department or TIC®.

SSPC/NACE Partnering

An event which may well prove to be a turning point in the collaboration of two influential associations in the corrosion and coatings industries is the agreement between the Steel Structures Painting Council (SSPC) and NACE International (formerly the National Association of Corrosion Engineers) to invite a Board member from the other association to sit on their respective Board of Governors/Directors as an ex-officio member. We are proud to announce that Crone Knoy of TANK INDUSTRY CONSULTANTS has been asked to be SSPC's representative on the NACE board.

The goal of this agreement is to foster increased cooperation between the two associations in matters of mutual interest such as standards, certification, training, and education. After attending his first NACE board meeting late in October, Crone was very encouraged about the effect that this move could have on the future of the industry as a whole.

SPFA

The Steel Plate Fabricators Association (SPFA) is again planning a series of one-day Steel Tank Seminars throughout the United States in the coming year. This will be the 10th year that SPFA has hosted these events.

This year's tentative schedule includes seminars in Sacramento, CA; Hartford, CT; Houston, TX; and Cincinnati, OH. The seminars are designed to familiarize participants with the advantages of utilizing steel in the construction of water storage tanks. Crone Knoy or Steve Roetter of TIC present two topics in the seminars--"Operation and Maintenance of Water Storage Tanks" and "Industry Update."

For more information about these seminars contact SPFA, 3158 Des Plaines Ave., Suite 209, Des Plaines, IL 60018--708/298-0880 or TIC.