



Tonka Talk

Tonka Equipment Company Newsletter

Spring 2008

Chairman's Corner

By Fred Friswold

Déjà vu – again!

In late '03 steel prices began what would prove to be an unprecedented rise. By late 2004 the price of hot rolled coil in North America had more than doubled!

Prices subsequently stabilized, with only modest volatility during the 2005-2007 period. **However, in 2008 inflation has again raised its ugly head, as March hot rolled coil prices rose 28% from year end values and nearly 35% from September, '07 lows.**

Whether this just represents a brief fluctuation or is the beginning of another long, upward run remains to be seen. However, a number of factors suggest continued upward pressures until at least late summer. Large rises in scrap costs since early December, together with tight supplies and low inventories, continue to push up steel prices. Iron ore prices are also up dramatically. Our advisors forecast additional upside price movement through at least the middle of the year.

Continued on Page 3

Quality Water Tastes Good and Smells Good Too

by Sherri Westphal

Washington City, Utah, located in the far southwest corner of Utah, installed a 3 MGD water treatment plant in 2003. Given the challenge that the Quail Creek reservoir presented, a membrane unit was selected by Washington City as the primary treatment process.

The membrane unit, although effective in removing pathogens and TDS, was not effective in removing the unpleasant taste and odor from the water. The taste and odor issues are often seasonal and are directly related to weather events that introduce organic contaminants to the water source, specifically MIB and geosmin.

Granular Activated Carbon

Although not a health risk, taste and odor are of primary importance to potable water consumers. The city chose Tonka Equipment Company's Granular Activated Carbon (GAC) contact vessels to treat the taste and odor issues.

Each contact vessel offers over nine minutes of empty bed contact time

(EBCT), giving the GAC media sufficient interaction with the water to remove the offensive organic particles. Since the vessels were designed to sit outside, it was desirable to minimize footprint and maximize height. To accomplish this, two 12' diameter vessels were used, each with a 16' side shell height to accommodate 12 vertical feet of GAC.

High Quality Water

Providing the best potable water to its customers is always the primary goal of Tonka Equipment Company and the treatment systems we recommend. ♦



IN THIS ISSUE...

- 💧 Tonka Piloting
- 💧 Granger Road WTP – Arsenic Free
- 💧 Monitoring Water Plant Influent



Arsenic Free – Iron Free Water

By Doug Scott, Project Manager, Rowe Incorporated

Granger Road Water Treatment Plant is located in the Charter Township of Oxford, Oakland County, Michigan. The plant receives water from the Michelson Shores municipal wells and two new well systems that were drilled on the Granger Road site.

Complying with EPA MCL for Arsenic

Following the 2006 EPA new maximum contaminant level (MCL) standard of 10 parts per billion for arsenic levels in drinking water, the township's engineer, ROWE Inc, designed a water treatment plant that would treat the unsafe levels of arsenic and increase the system capacity to meet the increasing water demands of rapid population growth.

Pilot study

To meet the Michigan Department of Environmental Quality requirement that all municipalities perform pilot studies to ensure selected technology would work, Tonka Equipment Company performed a pilot study that concluded co-precipitation would be the most effective method for removing arsenic and iron from the drinking water source.



Effective, efficient treatment for arsenic removal

ROWE worked with Tonka to design a plant that included Tonka's horizontal pressure filters with isolated cells. Each filter incorporates Tonka's state-of-the-art "collapse-pulsing" Simul-Wash™ backwash system, using air and water simultaneously, resulting in optimal filter cleaning efficiency and prolonged filter runs while saving approximately 50% of backwash wastewater.

No hazardous byproducts

Working with Tonka, ROWE developed a way for the township to meet the new EPA arsenic standards cost effectively without generating hazardous byproducts or wasting an unnecessary amount of backwash water. The chosen option was the use of historically proven sand filtration and backwash procedures.

The fully automated system operation provides operators with a system that is both economical and easy to use. Other arsenic removal systems utilize specialized media that increases operation costs and can produce a potentially hazardous byproduct at the time of media replacement. The Tonka multi-celled system design provides enough system redundancy to provide adequate water volumes even with one vessel out of service.

Isolated multi-celled vessels

Tonka's Simul-Wash™ backwash process can take place in one cell while filtration capacity continues to meet system demands in the other cells of the multi-celled vessels. Backwash water is discharged and stored in a concrete detention tank to allow iron and arsenic to settle out prior to discharge into the sanitary sewer system.

Clean, safe and in compliance

The Granger Road Water Treatment Plant provides high quality drinking water for the residents of Oxford Township and meets all EPA and MDEQ requirements. ♦



A Tonka Pilot Study Has the Answers You Need

By Todd Butz

Designing a system to treat a difficult water source?

Concerned whether the treatment design will achieve the desired water quality?

Want to optimize a treatment process design?

These are questions that can be answered with a Tonka Pilot Study. Our fully equipped pilot trailers are available for on-site testing with a Tonka technician to assist with set-up and operational training.

Pilot Capabilities

Our pilot capabilities include on-site bench testing, preliminary assessment testing, and performance testing for the following:

- Iron and manganese removal
- Radium removal
- Arsenic removal
- Color removal
- Turbidity removal
- Ion exchange applications (anion and cation)
- Membrane applications
- DAF applications
- Simul-Wash™ backwashing method



Surface and Groundwater Applications

Tonka's pilot trailers are capable of piloting surface waters or groundwaters by incorporating chemical feed, flocculation, clarification, aeration, detention, and filtration through several different media configurations. Tonka also has several fully equipped crated units available for less sophisticated pilot studies.

Experienced, Reliable Service

An experienced Tonka service technician is available to perform the on-site pilot study. A complete report, including process recommendations, equipment sizing and layout options is available within 30 – 45 days after the completion of the pilot testing. ♦

Continued from Page 1

Steel price inflation has significance to Tonka, our fabrication shops, and our customers. Raw materials typically account for 25-50% of the total cost of a vessel. Thus a 29% increase in steel prices would directly cause a 7-15% increase in the cost of a fabricated tank.

Eventually, the higher costs would flow into the pricing of steel-based system components such as valves, gauges, and fabricated parts. Ultimately, major increases in steel costs will be reflected in project costs. Thus it is in everyone's best interest to expedite decision making on pending projects. Pending bids should be advertised quickly. Recently bid jobs should be converted to P.O.'s allowing early release of heads and shells to avoid re-pricing. Most importantly, budgetary estimates on projects in design should be modified to reflect the new market realities.

Tonka Territory Managers welcome opportunities to update budgetary numbers on any prospective project. ♦

Maintenance Tip - Monitor Water Plant Influent for Best Potable Water

By Jeff Emerson

Knowing what is in your well water can make a difference.

Monitoring water plant influent by having a current raw water analysis can help you and Tonka make the correct treatment decisions to provide your customers with the best potable water.

A raw water analysis should be done at least once every two years. Such an analysis will tell you what changes your water source may have experienced, and prevent incorrect or even damaging treatment.

With so many pretreatment and post treatment chemicals available, knowing your water make-up is very important. Jar testing for chemical reactions will also help determine treatment options, but any change in your raw water source will require analysis of that water.


For just a few dollars you can be certain that the water treatment system you have continues to be the best option for your raw water source.

Your chemical supplier can perform jar testing. State agencies can provide a list of authorized laboratories for your area. ♦



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Tonka Equipment Company
13305 Watertower Circle
Plymouth, MN 55441

The logo for Tonka Water Treatment Systems is a blue teardrop shape. Inside the teardrop, the word "TONKA" is written in large, bold, white letters. Below "TONKA", the words "WATER TREATMENT SYSTEMS" are written in smaller, white, all-caps letters, arranged in a circular pattern around the bottom and right sides of the teardrop.