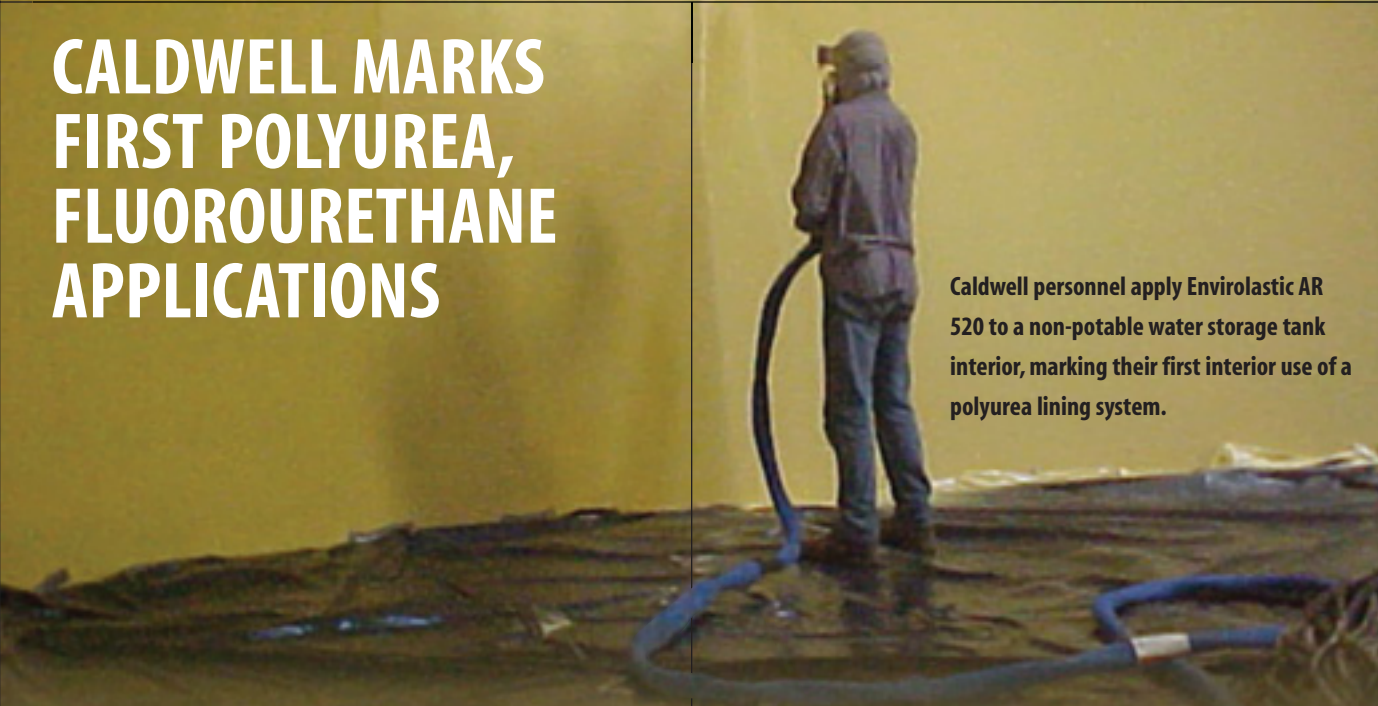


A NEW APPROACH

CALDWELL MARKS FIRST POLYUREA, FLUOROURETHANE APPLICATIONS



Caldwell personnel apply Envirolastic AR 520 to a non-potable water storage tank interior, marking their first interior use of a polyurea lining system.

As far as “firsts” go, it may not rank with the first man to summit Everest, or the development of the first home computer.

But for Jason St. Clair of Caldwell Tanks in Louisville, Ky., his company’s first use of a polyurea system to coat a steel tank’s interior and a fluorourethane system to coat the tank’s exterior is pretty important stuff. In fact, the repaints on two non-potable water storage tanks in Frenchburg, Ky., last July were so successful that the company used the systems on elevated tanks for the first time in October.

“It went on like a dream,” says St. Clair, the Coatings Operations Manager, of Sherwin-Williams Envirolastic AR 520. The product’s durability and elastomeric characteristics as well as its high-build application properties have made it recently attractive to tank applicators.

“And the exterior system rolled and covered very well too. No problems whatsoever.”

Interior first

Plans in Frenchburg were to bring the smaller, 100,000-gallon tank off-line first, finish it inside and out and return it to service before

applying the same systems on the property’s 200,000-gallon tank. Specifications on the interior called for a coal slag blast to SP10 and a light prime coat of Sherwin-Williams Copoxy, before application of Sherwin-Williams Envirolastic AR 520 to a minimum of 20 mils.

“Absolutely, I had some reservations for our first time, but they were more about the equipment than the materials,” says St. Clair. “The equipment’s got to be right or the materials won’t be right. If you’re not pumping at exactly 1:1 ratio you’re not going to get the proper cure and you’re going to have to take something like 25 to 30 mils off the tank.”

With guidance from Sherwin-Williams personnel, St. Clair had begun equipment preparations for the project last winter, and ended up equipping a plural-component spray equipment trailer.

“That trailer was a first for us,” he says. “We had to get a 50kw generator, a 30 cfm air compressor and the pump itself. There was a lot of preparation for what turned out to be a couple hours of spraying.”

The spraying — completed with a Graco Fusion AP spray gun and an AR 2929 fan tip — and the finish were a worthwhile payoff, however.

“It sprayed better than I’d ever seen it spray,” says St. Clair. “I’d seen



These non-potable water tanks (far left) in Frenchburg, Ky., received a FluoroKem exterior coating system, marking Caldwell's first usage of an exterior fluorourethane system.

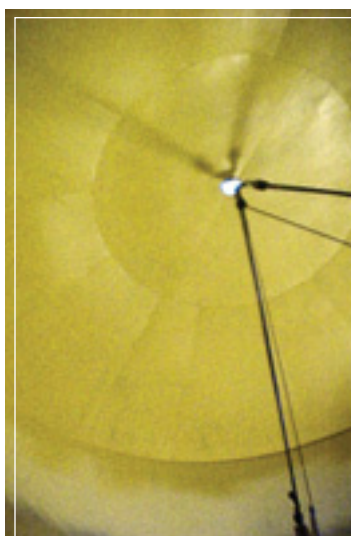
demos but most of those were on a piece of cardboard or plastic. And it never appeared very aesthetically pleasing compared to an epoxy. So I expected to see some sags, but when we got done, I would challenge anyone to compare that finish to an epoxy system. It looked as good, if not better. The owner and inspector were very pleased."

"I would challenge anyone to compare that finish to an epoxy system."

The exterior was specified to be finished with a Sherwin-Williams zinc-epoxy-urethane system, but the discovery of lead in the exterior coating of the larger tank brought a change order. Sherwin-Williams GalvaPac Zinc still made up the prime coat, but the intermediate coat switched from MacroPox 646 on the smaller tank to Acrolon 218 HS on the larger tank. Sherwin-Williams FluoroKem Fluoropolymer Urethane, which was rolled onto the tank, is expected to provide a highly durable topcoat.

For St. Clair, the experience has him considerably less gun-shy about using both systems on elevated tanks.

"We're looking forward to it," he says.



**AWWA
STANDARD
FIRST
CHANGED
IN 2003**

The successful installation of a Sherwin-Williams interior polyurea system and an exterior fluorourethane system on steel water tanks in Frenchburg, Ky., offers further evidence that specifiers are starting to see the benefits of the revisions made to a key AWWA standard in 2003.

AWWA D102-03: Coating Steel Water-Storage Tanks included a revision that first permitted the use of a three-coat system consisting of an inorganic or organic zinc-rich primer, an intermediate coat of an aliphatic polyurethane, and a finish coat of a two-component aliphatic fluorourethane. For interior systems, a revision permitted use of 100-percent solids polyurethane and/or polyurea technologies.

These revisions were included in the most recent standard for coating steel water-storage tanks, AWWA D102-06.