

**MARKET SYSTEM PROJECT**

**OWNER**  
**CONTRACTOR**

Potable Water : Water Tanks  
 VF 20 Primer, AquaVers® 405 Pure Polyurea  
 Redstone Arsenal Water Tank Rehab; 5,000,000 gallons  
 Redstone Arsenal Base, Huntsville, Alabama  
 Contracting and Materials, Decatur, Alabama



Redstone Arsenal had a decision to make; demolish or repair a valuable and working 5 million water tank. The tank, built in 1941 has had a useful life as a water storage tank for their water suppression system at the arsenal, as well as a back up drinking water supply. The tank had hundreds of cracks and leaks, and was losing water at an appreciable rate. The Public Works Department evaluated their options for over 10 years with no apparent solution. After the recent success of a VersaFlex polyurea rehabilitated water storage pond adjacent to the tank, they recognized that they could use a similar approach to repairing the tank.

Construction and Materials (C&M), Decatur Alabama, the contractor on the pond, was also awarded the tank project. VersaFlex AquaVers® 405 was chosen due to the potable water requirements. AquaVers 405 is ANSI/NSF 61.5 approved.

The first step in a 3 week preparation



# POTABLE WATER



**VersaFlex**<sup>®</sup>  
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process was to drain and clean the tank. C&M used a combination of a 24,000 psi pressure washer and standard 4,000 psi pressure washer on the walls and floor. After cleaning the tank, they set up scaffolding so work could be monitored at all times.

The scaffolding also became their work platform for their spray equipment, daily product storage, tank access and control center. All cracks over 1/8" wide were repaired with a concrete repair grout. The concrete surfaces were primed with VersaFlex VF 20 primer, and 80-100 mils of AquaVers 405 was applied. The walls were completed first. Next they removed the heavy equipment from the floor. The tank base was re-cleaned and primed before the final application of the AquaVers 405 was applied to the floor.



As with almost any project, things do not always go as planned. After completing the project, and going through a punch list for minor repairs, heavy rains filled the tank with a few feet of water. This resulted in an additional week of work as the drain was repaired, water drained and the surface dried before the minor repairs could be made before turning the project over to the arsenal.

From start to completion, the project lasted 2 months. The Redstone Public Works Department is completely satisfied with the work and they expect many years of extended life of the tank.



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