

ELEVATED CONCRETE WATER TANK

When it comes to inspecting composite elevated tanks (CETs) like the one in Prescott, Ontario, Tnemec coating consultant David Walker has come to expect the unexpected. "Usually with elevated water tanks, the column is concrete and the tank is steel," according to Walker. "With this tank, everything was concrete."

After determining that the tank's interior coating system was in the process of failing, Walker conducted further testing to assess whether the existing lining could be removed without destroying the concrete substrate. "It turned out that in the removal process the concrete was being damaged severely," Walker recalled. "So we conducted further testing that involved brush-blasting the existing coating and applying an overcoat which met with the acceptance of the project's engineer."

The steel riser section in the tank's interior was abrasive blast cleaned in accordance with SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning. The entire interior was then primed with Series N140F Pota-Pox Plus, a polyamidoamine epoxy, which was airless spray-applied. A topcoat of Series 22 Pota-Pox 100, an advanced generation, high-build modified polyamine epoxy that offers excellent resistance to abrasion, was airless spray-applied at 15.0 to 20.0 mils DFT to complete the system. The project required 90 gallons of each coating.

Both Tnemec coatings are ANSI/NSF Standard 61 certified for use in potable water. Walker noted, "All of the alternative technologies and competitive systems in the original specification did not comply with NSF 61 requirements, so Tnemec was brought in and the materials were changed midway through the job."

"The applicator was quite happy with Series 22," Walker added. "They appreciated being able to apply the product with an airless spray pump and the finished project looked very nice."

Composite elevated water storage tanks first appeared in Canada beginning in the late 1970s and featured proprietary designs from various manufacturers, which accounts for the different construction styles found in Canada and the U.S.

FEATURED PRODUCTS

Series 22 Pota-Pox 100
Series N140F Pota-Pox Plus



PROJECT INFORMATION

Project Location
Prescott, Ontario

Project Completion Date
August 2007

Owner
Town of Prescott

Engineer
Genivar Engineering - Markham, Ontario

Field Applicator
JDCMI - Cambridge, Ontario

Tnemec coatings that are ANSI/NSF Standard 61 certified for use in potable water protect the interior of the elevated concrete water tank in Prescott, Ontario.

