Chemical Protection of Concrete Tank Base within Secondary Containment

ID: 10354

Industry:	*Power*	Customer Location:	*Fort Pierce, Florida*
Application:	*TCC-Tanks and Chemical Containment Areas*	Application Date:	*September 2026*
Substrate:	*Concrete*		
Products:	*Belzona 4311 (Magma CR1),Belzona 4911 (Magma TX Conditioner)*		

Problem

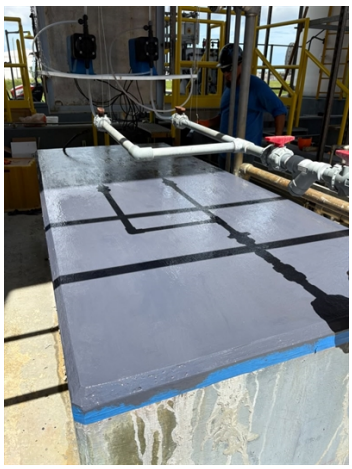
The concrete base supporting a 98% sulfuric acid tank is located within the secondary containment area and required additional chemical protection. In the event of a leak or spill, concentrated sulfuric acid could attack and deteriorate the unprotected concrete, potentially affecting the integrity of the tank base and the surrounding containment area.



Prepared concrete tank base within the secondary containment area prior to application of the Belzona chemical protection system. The surface was prepared in accordance with the Belzona 4311 IFU before conditioning with Belzona 4911.



Belzona 4911 being brushed into the prepared concrete substrate to condition the porous surface prior to application of the Belzona 4311 chemical-resistant coating system.



First coat of Belzona 4311 applied over the conditioned concrete tank base, creating the initial chemical-resistant barrier within the secondary containment area.



Completed application of the Belzona 4311 chemical-resistant coating system on the concrete tank base, providing continuous protection within the secondary containment area beneath the 98% sulfuric acid tank.

Application Situation

The objective was to provide a chemical-resistant protective barrier over the existing concrete tank base, which forms part of the secondary containment area. Because the base is located beneath a 98% sulfuric acid tank, the Belzona system was selected to provide additional chemical protection against potential leaks or spills while allowing the existing concrete structure to remain in service.

Application Method

Surface preparation was completed strictly in accordance with the Belzona 4311 IFU requirements. The concrete substrate was prepared to provide a clean, firm, dry, and well-roughened surface. The prepared concrete was then conditioned with Belzona

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4911, which was thoroughly worked into the porous substrate. Following conditioning, two coats of Belzona 4311 in the same color were applied to create a continuous chemical-resistant protective barrier over the concrete tank base.

Belzona Facts

Belzona 4911 was used to properly condition the porous concrete substrate before coating, as required by the Belzona 4311 IFU. Two coats of Belzona 4311 were then applied to provide chemical protection to the concrete base located beneath the 98% sulfuric acid tank, enhancing the chemical protection provided within the existing secondary containment area.

ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

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