

A 30 year upgrade for a tank lining system

Tank #4 is the largest tank at Enterprise's Texas City Terminal. The 91 x 16m high (300 x 52ft) external floating roof tank was installed in 1979 with the AkzoNobel Matcote system and has been in service for 30 years without any failures.

Enterprise owns approximately 4,400 miles (7,081 km) of onshore crude oil pipelines and 10.5 MMBbls (million barrels) of above-ground storage tank capacity. Their onshore crude oil pipeline systems gather and transport crude oil primarily to refineries, centralized storage terminals and connecting pipelines in Oklahoma, New Mexico and Texas. The Texas City Terminal supplies crude oil to the refineries in the Houston area and is connected by a 530 mile (852 km) network pipeline called "The Seaway Crude Pipeline System".

In 2009, an inspection of Tank #4 took place, and the coating system was found to be in good condition, however, due to the excellent proactive M&R programme at Enterprise, it was decided that a refurbishment of the tank floor would greatly extend the life of the tank, and also that the striker plates should be replaced. There were 280 striker plates, which are used to hold up a floating roof tank.

It was very important to Enterprise to have a tried and tested system installed that would allow the tank to operate for another 30 years without disruption. In general, the crude oil terminals are used to store crude oil volumes for Enterprise and others customers. Under their crude oil terminaling agreements, they charge customers for crude oil storage based on the number of days a customer has volumes in storage multiplied by a storage rate, meaning the larger the amount of volume and the longer Enterprise can hold crude oil the more profitable it will be. AkzoNobel's Protective Coatings Linings Executive, was tasked with working with Enterprise to understand their needs and provide a solution;

"The tank was designated as non-swing storage, meaning that it would store one cargo, crude oil, and nothing else. I suggested the re-use of Interline[®] 985, as it has been designed for use in new tanks, and refurbishment of old tanks, and has a proven track record, which was important to Enterprise".

Interline 985 is a two component, solvent-free epoxy tank lining, applied by plural component airless spray, and is used in conjunction with chopped glass fibre to form a glass reinforced system.

For the tank floor, blasting was used to get the coating back to the glass fibre level and then gel coated with Interline 985 – the fibre glass was not removed, as it was in such good condition. The new striker plates were given a complete Matcote system, including the chopped glass fibre, to ensure that they were in premium condition before they were installed.

AkzoNobel was chosen for the project due to Enterprise's past experience with other products, such as Interseal[®] 670HS, Interthane[®] 990 and Interzone[®] 954, along with the excellent relationship with Enterprise and consistent, quality products for all applications.



"AkzoNobel has partnered with Enterprise to supply superior coatings that range from tank linings to exterior systems that are simple to apply. They have made it easy for us to order protective coatings online or over the phone for our Terminal in Texas City"

Enterprise Contract Project Manager