



their safety is essential.
Protecting people, property, and the planet.

Rehabilitating Faulty Seals and Leaks on Geodesic Domes

Failing Seals and Gap Issues

Problem:

Geodesic dome roofs, often found on aboveground storage tanks (AST) in the oil and gas industry, are constructed from aluminum for their corrosion-resistant properties. However, daily thermal expansions and contractions create gaps between the panels which allow corrosive gas vapors and hazardous air pollutants to escape from the tank. Additionally, humidity, airborne chlorides, and particulates can infiltrate the structure through these gaps, contaminating tank contents.

Solution:

Traditionally, repairing a geodesic dome involves replacing panels and seals or applying various forms of tape to help close the gaps, methods which are expensive and labor-intensive. Basic Concepts (BCI) offers an alternative solution with its SC-3900 spray-applied, flexible coating system. After cleaning the existing panels, the coating is applied directly over the seal, covering 4 to 6 inches on each side of the panel. With a short cure time, the coating application is relatively quick. Plus, it can be applied while the tank is in service, eliminating down time for the asset owner.

Much stronger than tape, SC-3900 can be used on a variety of substrates, including aluminum, steel and concrete. It is chemically resistant to fuels, sulfuric acid, and leachate water and the vapors that they emit. SC-3900 is UV , abrasion , and corrosion resistant.

Because it is flexible when dry, the coating moves with the tank roof, despite temperature and weather fluctuations. By effectively sealing the dome roof, noxious odors and vapor loss are substantially reduced.

For further information call 1-800-285-4203 or visit us online at basicconcepts.com



Multiple geodome roofs sealed to prevent future issues



Gaps between panels completely sealed