MUSCLE WALL CONTAINMENT Case Study

PROJECT DETAILS

Project Name | City of Colorado Springs Tank Storage

Location Colorado Springs, Colorado

March 2023 Date of Installation

> Salesperson Rvan Anderson

Application/Solutions Muscle Wall with an XR-5 Liner as an above ground secondary containment solution for storage of liquid magnesium chloride.

THE CHALLENGE

The City of Colorado Springs was struggling with proper storage of liquid magnesium chloride. The typical secondary containment practice for this product is to use concrete barrier walls. Concrete barrier walls are effective, but they require extra labor and heavy equipment due to their weight and size. Additionally, the City wanted a solution that could move and grow with them as their containment needs changed.

THE SOLUTION

Muscle Wall is a lightweight system that can be deployed by properly locating the empty units and filling them with water. It has a coupler-joint connection which allows each wall to securely connect with another and easily be reconfigured. At the end of a project, simply empty the Muscle Wall. This makes for easy take down and transportation. Muscle Wall is reusable and customizable, so it can be moved from project to project and installed to fit various scenarios and the City's ever-changing needs. Additionally, Muscle Wall can be deployed and taken down with just a small team of workers and without the aid of heavy equipment.

The XR-5 geomembrane liner is easy to handle due to its strength-to-weight ratios and flexibility. The ethylene interpolymer alloy (EIA) coating on the liner makes it resilient to environmental stress cracking, high loads, and temperature fluctuations. The liner is chemical resistant, hydrocarbon resistant, and UV stable. A tan liner was selected instead of a black liner because of the heat reduction factor.



Muscle Wall system set up to form a secondary containment system.



Installing XR-5 liner over the Muscle Wall.

PRODUCTS USED

- Muscle Wall 4' (MW-103) Panels
- Muscle Wall Liner Clips
- Muscle Wall Corners
- XR-5 Geomembrane Liner



THE RESULTS

Muscle Wall, along with a tan XR-5 liner, provided an immediate secondary containment solution that was deployed in a short period of time with a limited crew. The City of Colorado Springs was happy with the ease of installation and is expanding on this solution by utilizing it at two other facilities.





Muscle Wall & XR-5 liner installation complete and ready to provide secondary containment to protect against spills or leaks. The storage tanks providing primary containment for the liquid magnesium chloride were then set up inside the Muscle Wall containment system.





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