

## **Des Plaines River WRF Bolted Bulk Storage Silos**

### **Addendum No.1**

#### **Scope of Work:**

We are looking for a contractor to prepare and coat three steel bolted bulk storage tanks 25 feet in diameter and 52 feet tall.

The result is to provide a water-resistant seal within each silo that will prevent moisture penetration and maintain a nitrogen enriched environment. With the application of a flexible elastomeric coating.

#### **Safety**

The contractor shall provide air monitoring, anti-fall devices and harness to each worker entering the silos. The bottom of the silo has converging walls with a hopper angle of 60 degrees.

#### **Preliminary Work:**

The contractor shall:

- 1) Remove the blast panels and store them out of harm's way.
- 2) Remove the gas sensors, and protect the threaded bosses from damage.
- 3) Secure all openings to prevent water and blast debris from entering and existing the silos.
- 4) Verify all fasteners (nuts & bolts) are securely tightened to 35-foot pounds. Tighten all loose nuts and bolts. Nuts and bolts are not to exceed 50-foot pounds.
- 5) Verify there are no gaps between seams, which would allow light to be visible, identify any sources where water has penetrated the silos.
- 6) The manufacturer has not provided any information on bolt pattern or torque requirements. We shall determine a bolt tightening pattern in the field if loose bolts are discovered.

#### **Surface Preparation**

- 1) Brush blast all interior surfaces of the tank to achieve a blast profile of SP 6 / Nace #3.
- 2) At the seams where the panels are bolted together; from the center of each joint extending outwards about six inches on either side of the joint. These areas shall be blasted more heavily (close to SP 10 / Nace #2) without causing damage and not blowing through the structure. The objective is to ensure the profile created is suitable for the coating to adhere to around the seams and bolts without going crazy while allowing for high build application.
- 3) The contractor shall remove and dispose of the spent blast media, in accordance with State and Local regulations.
- 4) Once the clean-up has been completed, the contractor shall verify that no joints have opened, and all seams are uniformly secure.
- 5) Panels that cannot be pulled tight or large gaps between the seams exist shall be caulked with a paintable sealant such as Sikaflex 1A polyurethane sealant.

#### **Coatings and application**

- 1) The contractor shall coat the ceiling and walls of each silo to obtain a smooth uniform surface with minimal runs and sags.
- 2) Apply in multiple passes to achieve 100 mils DFT along all joints and seams and 60 mils DFT along the center of each panel.

Approved Coatings:

Sherwin Williams: SHERFLEX Elastomeric Polyurethane

Tnemec Elastoshield 246

All coatings shall be handled and applied in accordance with the manufacturer's application guidelines.

Once the coating has cured. The contractor shall reinstall the gas monitoring probes and blast panels.