

Platinum Building Solutions, Inc.:

Temperature Phased Anaerobic Digester Tanks

Installer: **Heath Evans, Jim Davidson, Virgil Strauch**

Location: **Oswego, IL**

Type of Job: **Tank**

Square Footage of Job: **13,000**

Equipment Used: **Gama Master Guns, Graco H25, Gama G250H, Gusmer H20/35**

Pro

Number of people needed for the Job: **four to eight**

Number of days required by the Job: **nine**

Special Requirements: **The specially constructed tank bracing that held the perimeter burlap served as both a wind screen and a warning line**

Foam and coatings used: **BASF ELASTOSPRAY® 81305 BASF ELASTOCOAT Polyurea**



Project Description: This unique project was located near Oswego, IL at a water reclamation district. The newly constructed temperature phased anaerobic digester tanks (13,000 SF) was primed with Tnemec primer, then 6.0 of spray polyurethane foam (BASF ELASTOSPRAY 81305) was laid down using Gama Master Guns, a Graco H25 and a Gusmer H20/35 Pro. A Gama G250H high pressure polyurea proportioner combined with another Gama Master gun laid down 40mils of aromatic polyurea base coat (BASF ELASTOCOAT, 8829/88290) and then another 20 mils of aliphatic top coat (BASF ELASTOCOAT 8848/88480); not to mention the tricky part of getting the SESCO granules embedded before the fast setting polyurea cured. Polyurea was chosen for its high resistance to foot traffic and to the harsh chemical environment the tanks were exposed to. Since October was the coldest in 130 plus years and the six weeks of project time only yielded nine days that the crew could work, the original crew size was bumped from four to eight. A few of the unusual factors that drove the design of the polyurea coated foam insulation system was the CH₄, CO₂, & H₂S gases, the anaerobically digested sludge & digester gas, the material pH of 7, and the 133° - 140° F operating temps. Throw in two OSHA visits with no write-ups and you can tell the Platinum crew was on top of their game.

Benefits of using Foam: Nine Days, 26 sets of foam, 750 gallons of polyurea, and 4,500 lbs of granules. Also that those nine days were in the windy city, over six weeks of nothing but rain and 40° - 50°F degree days and after the time change so they were short daylight days. Superiority of SPF vs. other insulations, Ability of SPF to conform to irregular surfaces, Spray polyurethane foam was really the only option to conform to the round dome shaped tank.



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