



HDPE PIPE & JOINING SYSTEM SELECTED FOR DEMANDING SALTWATER DISPOSAL UNIT

Project Wins Industry Award

IRVING, Texas - A new saltwater disposal (SWD) facility in northern Texas has been named the Project of the Year by the Plastics Pipe Institute, Inc. (PPI) for its Energy Piping Systems Division. More than 700 feet of high-density polyethylene (HDPE) pipe with mechanical couplers was used to connect the ten water tanks, two oil tanks, one gun barrel and three offload stations at the Atlas Resources Hamman Saltwater Disposal Facility. Victaulic, a PPI-member company and manufacturer of the couplings, received the award at the PPI annual membership meeting. PPI is the major trade association representing all segments of the plastic pipe industry. Its "Projects of the Year" peer-recognition program was established in 2010 to acknowledge significant industry contributions.



"This is a rather uncommon use of HDPE pipe," stated Tony Radoszewski, president of PPI. "It's typical to see the pipe in water and gas applications but HDPE pipe is being found in more and more projects where its strength and resiliency are found to solve a problem. Being able to stand up to the highly corrosive nature of saltwater found in a project such as this is one inherent attribute of HDPE pipe."

Saltwater disposal facilities have a history of being constructed with plastic-coated steel, stainless steel or fiberglass. HDPE pipe is known for its corrosion resistance, long life and favorable cost.



Nearly 100 Victaulic Style 908 couplings, 50 Victaulic Style 905 plain-end HDPE couplings were used along with more than 50 valves and 20 equipment connections.



In designing the facility, which serves the company's producing assets in the Marble Falls play, Atlas Resources engineers determined that HDPE pipe would be superior to metallic pipe, given the corrosion issues associated with saltwater. Compared to internally coated steel pipe, HDPE pipe was also a more economical choice, reducing material costs by more than 50 percent. SDR 9 HDPE was selected for the facility piping, including the 10-inch gun barrel piping, 4-6-inch offload station, and 8-10-inch tank manifold piping.



The original plan called for the pipe to be fused, but the fusion process presented several challenges for this project. The tight spacing between the tanks combined with the larger diameter piping would have required some of the fusing to take place away from the tank battery, and for the spools to be hoisted in and mechanically joined. There was also a risk of the fusion equipment damaging the liner in the containment area. To overcome these difficulties, Atlas Resources decided to use

the new Victaulic HDPE pipe-joining system. The system was also appealing for its ability to minimize time and labor on site.



Atlas reported that the installation went exceptionally well and that the joining process is extremely easy. Installation crews joined the piping very quickly with no issues. The Victaulic Style 908, according to the company, can be installed as quickly as five minutes and a Victaulic Style 905 plain end unit in just two minutes. "As to the ease of putting it together and the product itself, we heard nothing but positive reviews," said Chris Fournier, senior facilities engineer with Atlas Resources.

Although not possible to predict before construction started, the weather could have derailed the project. During the first week of assembly, the job site was hit with 15-16 inches of rain and high winds, resulting in serious flooding. Several inches of water



had to be pumped out of the containment area daily. Rather than stopping work, crews were able to clear the water and continue installing the systems due to the Victaulic HDPE joining system.

"The Victaulic process had no issues regardless of the weather conditions we were working in, whereas we would have had significant problems fusing. It was extremely fortunate that we were using this system," Fournier reported.

Construction stayed on schedule, and the SWD was completed in six days. Additional offload station piping was completed in four days for a total of 10 project days, well ahead of the six-week projection for alternative joining methods.

In addition to the direct cost savings of HDPE over steel pipe, Atlas also saved on labor and materials by using the Victaulic HDPE joining system. "Having an extremely short construction window helped control labor costs in the field, especially given the weather we ran into," Fournier commented.



"The capabilities of the new Victaulic HDPE joining system make the use of HDPE pipe on such projects more approachable from a constructability standpoint," Dr. Randy Knapp, director of engineering for PPI's Energy Piping Systems Division. "This is just one example of new markets and applications for plastic piping where alternative joining methods present limitations or difficulties. Other examples abound, and include applications in the water and wastewater, landfill and irrigation industries. These applications involve pipe installation in tight spaces, vertical orientations or on uneven ground. The Victaulic HDPE joining system can be used in each of these situations without special accommodations, and also provides simple transitions to valves and equipment, easy access to the piping system for maintenance, and visual verification of joint integrity, thus enhancing the appeal of HDPE pipe in such applications."

According to Victaulic, the success on the Hamman SWD project has resulted in Atlas using HDPE pipe and the Victaulic joining system on other projects, including a number of facility build-outs in the Eagle Ford Shale.

For additional information, visit the PPI website at: www.plasticpipe.org.

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About PPI:

The Plastics Pipe Institute Inc. (PPI) is the major trade association representing all segments of the plastic pipe industry and is dedicated to promoting plastics as the material of choice for pipe applications. PPI is the premier technical, engineering and industry knowledge resource publishing data for use in development and design of plastic pipe systems. Additionally, PPI collaborates with industry organizations that set standards for manufacturing practices and installation methods.