

## storage news

### Verwater gets busy

Verwater Group, still busy with the ETT 3 project in Rotterdam, has recently been awarded two major storage terminal construction projects. This past March it was awarded a contract to build a 10m-bbl (1.6m m<sup>3</sup>) petroleum terminal at St James's parish, Louisiana by Petroplex International, just a week after winning a deal to build five large tanks for diesel storage at the NuStar terminal at St Eustatius in the Caribbean.

The Petroplex deal is part of a massive project to develop a multipurpose site on the lower Mississippi. Phase 1 involves some \$300m or more of investment, and will produce a 4m-bbl (700,000 m<sup>3</sup>) petroleum/liquid products storage, blending and distribution terminal. "The storage terminal will serve as a merchant facility, storing and blending liquid products for the expanding requirements of the several major petroleum refineries and major international trading companies already operating in the area, as well as serving the growth in petroleum, chemical and agricultural storage demand," says Petroplex. "All transportation modes will be served, with high-volume capacities provided for ship and barge, rail, pipeline and truck traffic."

Verwater says it will use new tank construction methods that have never before been applied in the US. The storage tanks will be built horizontally into the soft soil of the Mississippi basin and will be hurricane-proof. This will also cut maintenance costs while extending the tanks' economic lifetime, Verwater says.

The five new tanks at St Eustatius will offer around 1m bbl (160,000 m<sup>3</sup>) of additional storage in the upper terminal. Three 36,100 m<sup>3</sup> tanks will be used for high-sulphur diesel and two 25,700 m<sup>3</sup> tanks will handle low-sulphur diesel. The work includes the provision of transfer piping, pumps and associated instrumentation.

Meanwhile, work continues on the new tank farm at VTTI's EuroTank Terminal in Rotterdam. The ETT3 project, which sits alongside the existing ETT1 and ETT2 sites, will add 465,000 m<sup>3</sup> of capacity in mild steel tanks, taking overall capacity at the EuroTank Terminal to more than 1m m<sup>3</sup>. The new tankage is designed to handle fuels, vegoils and petrochemicals.

The first pile was driven in June 2010 and ETT3 is scheduled to receive its first product by the end of this year.

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## Quick and quiet

**PUMPS** The NFPA Section 58 safety regulation comes into effect on July 1. Owatonna, Minnesota-based Pirkel Gas saw this coming and knew that an upgrade to its propane facility was going to be in order.



The new National Fire Protection Association (NFPA) regulation dramatically alters the types of equipment that can legally be used in propane gas systems, requiring all bulk storage tanks with a volume of more than 4,000 gal (15,140 litres) to have their storage tanks fitted with either internal valves or an emergency shutoff valve. With this in mind, Pirkel Gas figured that it might as well take the opportunity to upgrade and renew its pump and motors at the same time, and even add some new tankage.

Pirkel turned to the experts at LPG & NH<sub>3</sub> Supply of Buffalo, Minnesota, which has been supplying equipment and service for the propane and anhydrous ammonia markets since 1976, for the design and installation of the equipment that would help modernise the Pirkel Gas bulk plant.

Since the facility has a tendency to flood, the first job was to raise the tanks off the ground and place them on piers, before installing two new storage tanks. In order to increase the speed of the bobtail loading process, three pumps were included in the system to increase the loading capacity. Together, the three pumps have the capability of pumping 525 gpm, and lowered Pirkel's overall loading times from 40 minutes down to a speedy 13 minutes on its 5,000-gallon trucks. This also means that Pirkel gas can now turn over its product three times faster than it had been able to in the past, increasing the amount of propane it can sell in a shorter period of time.

To ensure that the new loading areas would function at maximum efficiency, LPG & NH<sub>3</sub> Supply specified Blackmer® 3-inch LGL sliding vane pumps. As a Blackmer distributor, LPG & NH<sub>3</sub> Supply likes the standout features of the LGL Series pumps, such as their cavitation suppression liners that reduce noise, vibration and wear; replaceable casing liners and end discs; ductile-iron construction with internal relief valves; self-priming and dry-run capabilities; and vanes that can be replaced without removing the pump from the piping system.

"The Blackmer pumps have been a tremendous improvement to our bulk plant. They are reliable, very quiet and, thanks to their efficiency, have improved our load times dramatically," says Pirkel. "They run so quiet, efficient and fast. They are the best pumps in the LPG market, by far."

The result is a modernised bulk plant that is the epitome of fast, efficient, cost-effective operation. Three Blackmer LGL 3-inch pumps with 15-horsepower motors and enhanced RPMs were installed. An outside firm was used to add more openings on the tanks so there is now a high-speed loading bulkhead off the tail of two tanks with two 3-inch loading lines and one vapour line. On the other end of the tanks is a lower speed bulkhead with one 3-inch loading line and one 3-inch Blackmer pump with a 15-horsepower motor. The pumps on both ends are geared to pump 175 gpm, with the two pumps running in tandem at one end capable of producing 350 gpm of loading capacity.

In addition to the LGL stationary pumps, Pirkel Gas specified TLGLF3 pumps on its rolling fleet because they provide the capacity that is needed and constant flow rates. They can also be used in tandem with Blackmer's 2-inch external bypass valve, which increases their reliability and dependability. Pirkel's entire fleet was built by Arrow Tank and Engineering of Minneapolis, a Blackmer OEM and distributor since 1957.

"We always look to partner with companies that have the same values and drive that we have," says Pirkel. "The proof that our relationships with LPG, Arrow and Blackmer are paying dividends can be found in the success of our recent plant upgrades, as well as the reliability of our delivery fleet. These are relationships that we can also build on into the future."

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