Upgrades for Solvay

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A new cogeneration (cogen) plant being built along Ohio 7 that will provide Solvay Specialty Polymers with the electricity and steam it needs for daily operations will be fully functioning by the end of the year.

The plant is about 60 percent finished. Work on-site started in December, with fill raising the site above the 100-year flood plain. Groundbreaking started on May 14.

DTE Energy held a tour of the new cogeneration plant Thursday morning, allowing media access to the unfinished plant.

Article Photos

AMANDA NICHOLSON The Marietta Times

Craig Sielaff, project manager for DTE Energy, shows the turbine that will produce the electricity and steam Solvay Specialty Polymers needs to do operations during a tour Thursday.

The plant relies on compressed natural gas to run through a turbine to produce electricity. Project Manager Craig Sielaff, of DTE Energy, said the process creates a vast amount of heat and gases, which instead of being wasted are captured and used.

"The exhaust gases (and heat) are exhausted into a (heat recovery steam generator)," he said, adding that the gases and water are used to make steam, which is what Solvay needs when making its polymers.

The steam is transferred to Solvay from the site through about a mile of pipe. In case something were to go wrong with the turbine, there are backup package boilers with burners to heat the water and create the steam Solvay needs.

Fact Box

At a glance

DTE Energy, based in Ann Arbor, Mich., is building a cogeneration plant at 17554 Ohio 7, near Solvay Park. DTE Marietta, a subsidiary company, will own and operate the facility.

The plant will provide Solvay Specialty Polymers will all of the steam and virtually of the electricity it needs for operations.

The plant uses natural gas, pressurized to 350 pounds, to generate electricity.

The heated exhaust gases and water are then used to generate steam, which is sent to Solvay through roughly one mile of piping.

The plant is eight megawatts and has roughly 80 percent efficiency.

It is expecting to cost about $30 million to build.

About 75 percent of the contractors are local.

Eleven full-time employees will work at the plant, five of them being workers from Solvay's temporary boiler facility.

It will be operational late this year.

Source: Times research.

The plant produces polymer pellets used in the production of items such as plumbing, electrical connectors, medical devices and fuel filters.

Wally Kandel, senior vice president of Solvay, said the idea of a plant like this has been in the works since 2010.

"When AMP Ohio shut down in 2010...Solvay put in a temporary steam boiler system," he said. "We stepped back to look at a long-term solution."

American Municipal Power's Richard H. Gorsuch Generating Station closed Dec. 15, 2010 as part of a settlement agreement with the U.S. Environmental Protection Agency and the U.S. Justice Department, which had filed suit against the plant in April 2009 for violation the Clean Air Act.

The plant employed around 80 full-time employees when it closed. It also supplied the ability to make steam for Solvay, prompting the need for the temporary steam boiler system. The new DTE Energy plant will not only produce steam with water from Warren Water, but also electricity for Solvay.

Solvay is also using water from the $10.5 million Good River Distribution, LLC, Water Service Station project for water cooling and other processes, along with other businesses in the area.

Kandel said that long-term solution is the cogen plant, one DTE Energy was happy to provide. DTE Marietta, a subsidiary of DTE Energy, will own and operate the site.

Randi Berris, senior specialist in media relations for DTE, said this is not the first cogeneration plant DTE has built.

"DTE knows what it's doing with cogeneration plants," she said. "(DTE has) 20 across the country."

In the event of a power loss, there is a backup engine.

"The diesel generator will start the plant up," said Sielaff. "If we're down, seven minutes later, we're back up."

Sielaff said testing will be done at least once a month to make sure the system is operational and an initial "blackout" test will take place after coordination with Solvay.

"It's to make sure it functions and does what it's supposed to do (in the event of a blackout)," Sielaff said.

Kandel said the "black start" motor is important for operations should something happen.

"The criticality of them being able to do the black start enables Solvay to continue operating," he said. "It's really important for us to have reliable electricity. The whole time (to get up and running again) can take as much as three days."

Sielaff said preparations have been made for water shut-off as well.

"We have storage tanks to keep enough (water) on-site to run the plant for 12 hours," said Sielaff.

The two storage tanks can hold 30,000 gallons of water each.

The plant is expected to cost about $30 million and Sielaff said 75 percent of the contractors on the job are local.

"I'm shocked in a good way at the quality workers (in the area)," said Sielaff. "I don't have enough good things to say about (them). They're giving us their full attention and doing a good job."

The plant will be complete late this year, sometime in the fourth quarter, according to Sielaff. The plant will operate around the clock and there will be 11 full-time employees. Five of those positions have been offered to those operating Solvay's temporary boiler facility.

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