

### GWF Powers Everyday Activities

by Amy Roberts

GWF Power Systems generates enough power to supply 25,000 California homes – or more than half the residences within Hanford’s city limits.

The facility, which started operations in 1991, was originally built as a co-generation plant providing 30,000 pounds of steam an hour to the Pirelli Tire Company and electricity to PG&E, the utility serving businesses and residents outside Hanford’s city limits.

Despite the tire company closing six years ago, GWF still has process steam available for industrial use and continues to provide PG&E with a constant flow of 25 megawatts of electricity so homes can continuously run appliances, lights and other amenities.

Once the generated power is put on the energy grid the ISO, or Independent Service Operator, sends the power where it’s needed.

However, the further power is sent, the more is lost, said Riley Jones, business manager and legislative representative at the Hanford plant. This is called line loss, he explained and is dependent upon the voltage.

The main facility daily uses between 180 to 220 tons of solid petroleum coke, a by-product of oil refining, and operates around the clock every day of the year. The coke is trucked in from Bakersfield and offloaded onto a conveyer belt, which carries the load to boilers, which operate at temperatures from 1,650° to 1,725° F.

In response to the energy crisis of 2000, two additional peaker plants were built in 2001 and 2003. These facilities become operational when power demands exceed the available supply and provide an additional 180 megaWatts of power. One is located next to the main plant and the other is near NAS Lemoore . Both are fueled with natural gas.

According to the company’s Website, Hanford and its sister plants in the Bay Area use advanced technologies to reduce up to 90 percent of the air emissions produced. Limestone added to the combustor also helps control certain emissions. Particulate emissions are controlled by using a multi-compartment, multi-bag filtration system.

“The use of fossil fuels will continue to play a large role in the energy requirements of the United States for many years to come,” Jones said. “It is our goal to not only operate as cleanly as possible, but to continue to improve the way we operate through the use of advanced technology.”

Synthetic Gypsum, a calcium sulfate-rich material, is a co-product produced from the combustion of coke and limestone. It is used by the cement industry and represents a yearly savings of over 75,000 tons of material being dumped into landfills.

Jones said the company’s goal is to continue operating as



From left, Ron Mann, Riley Jones and David Merritt stand outside the GWF gates.

efficiently and cleanly as possible.

“We are also looking for opportunities to reduce our carbon footprint,” Jones said, adding they are looking at the feasibility of integrating renewable energy into the peaker plants to reduce the amount of gas burned and creating a renewable energy source.

Jones said it takes 22 employees to run the Hanford plant. Plant Manager Ron Mann is responsible for operating the three facilities along with David Merritt, the maintenance supervisor.

Jones said he travels frequently to Sacramento to talk with legislators about energy issues and regulations.

GWF was recently honored by the Hanford Chamber of Commerce with a Business of the Year award. Kings County Farm Bureau congratulates GWF and appreciates their years of support and being a business member.

“The company is very pleased to be a part of the agricultural community and supports their causes,” Jones said. “Being a Farm Bureau member helps us stay current with what’s happening in agriculture and we strongly support agricultural education.”

#### BUSINESS STATS

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