

# Wilmington sludge treatment high-tech and money saving

By JOHN SOKOLICH

Reformer Staff

WILMINGTON — The town's wastewater and compost facility has gone high-tech, which in turn has saved the plant more than \$60,000 a year in water-cleansing costs.

On a tour of the facility Thursday afternoon, John Lazelle, assistant chief operator, said the plant has gone through several major upgrades since it was built in 1964, but the biggest cost-saving upgrade came with the introduction of composting equipment in 1994.

Since the plant started its composting process, it became the first and only compost facility in the state.

"For a small treatment facility, you can't beat this," said Lazelle, who has worked at the plant since 1987. "And we've never received a complaint about (the composting) since we started doing it."

Green Mountain Technologies loaned the composting facility to the plant in 1994, before the town decided to purchase the equipment in 1996.

The composting process, which is completely computerized, takes the sludge from the wastewater and runs it through a series of devices designed to remove the water from the solid part of the waste material. After the sludge is "dewatered," plant workers mix it with woodchips and then send the mixture to an aeration container, which starts the actual composting of the materials.

Lazelle said in order to meet Environmental Protection Agency (EPA) regulations, the compost in the aeration container must be kept at a temperature of 131 degrees Fahrenheit for three consecutive days to reduce pathogens in the mixture. Pathogens are disease-causing bacteria.

The process is continued at a lower heat for another couple of weeks to obtain proper "vector attraction reduction."

According to the EPA Web site, vectors, which include flies, mosquitoes, fleas, rodents and birds, can "transmit pathogens to humans and

other hosts physically through contact, or biologically by playing a specific role in the life cycle of the pathogen." Reducing the attractiveness of biosolids to vectors reduces the potential for transmitting diseases from pathogens in biosolids. After the process is completed and cured, the final product can be sold to area residents for use as the bedding in flower gardens or as potting soil.

Lazelle said the compost product is only certified by the state to be used for flower beds or soil reconditioning and cannot be used by farmers for vegetable crops.

The entire composting process has saved many thousands of dollars per year for the facility because before the process was introduced, the plant used to spread the sludge on farmers' fields. Lazelle said this could sometimes cost as much as \$80,000 per year. Today, the entire process of composting costs the facility only \$7,000 per year.

In addition to the composting process that the facility runs, the plant also treats and discharges about 80,000 to 100,000 gallons of wastewater per day.

Running the water through the treatment process, the plant cleans the water by breaking down the solids in a grinder before the water is aerated and chlorinated to remove pathogens from the liquid aspect of the waste. Though the chlorine is added during the process, Lazelle said, it is later removed before the water is pumped into the river.

Once the water completes its treatment, which takes about eight days to go through the system, 95 percent of the solids are removed from the wastewater before it is returned to the river.

For the amount of waste that is run through the facility each year, Lazelle said it is very efficient and odor from the waste is minimal. The facility has been toured by officials from throughout the country, and Lazelle said many states are taking the lead that Wilmington has started.

The entire plant is run by Lazelle and his father, Steve, who has worked at the plant since 1972.