

# Pine Haven County Home claims Ozone System is key to OPL's savings

Nursing Facility in New York using alternative sanitizer for laundry - producing higher quality finished linens and saving thousands of dollars a year



Story by Richard Merli

PHILMONT, N.Y. - Pine Haven County Home claims to have reduced its heating and water costs by 65% and chemical costs by 50% since installing a new, improved ozone system in its on-premises laundry in June.

Labor requirements for washing and drying have also been reduced by 25% as the 120-bed county nursing home in the Hudson Valley has taken advantage of equipment manufactured by *ClearWater Tech*, San Luis Obispo, CA, says Tom Shumsky, the institution's laundry and housekeeping supervisor.

The quality of finished goods laundered with the aid of ozone are also fresher, whiter and generally improved, he adds.

A reduction in water and sewer use of this proportion is no small prize this year in this region, which has suffered through drought conditions since last winter.

Pine Haven will process in excess of 395,000 pounds of goods this year, not including reusable underpads, an increase of 22% since 1998.

## For What it's Worth

Much of the purported savings in laundry operation stems from reducing wash temperatures from 180 degrees Fahrenheit to a range of 50° to 60° F; cutting wash room operations from eight hours a day to six; and slashing the number of laundry chemicals used from 11 to just two - a detergent capsule and a softener. A third chemical, a liquid surfactant, is used as needed when goods are heavily soiled.

The chemicals supplier, Innovative Chemical Systems (ICS) of Albany, NY, has been working closely with Shumsky to fine-tune the wash formulas in the ozone washing system to make the cycles "as short and as effective as possible," says ICS President Robert Strong. "We started

washing in temperatures of 60 to 90 degrees," Shumsky says, "Now we're down to 50-60 degrees range. We're saving a ton of money because our boilers aren't working to heat the water. When OSHA (the Occupational Safety and Health Administration) inspected us, they couldn't believe it was a laundry. They wanted to know where the smell was."

Although the Pine Haven laundry is open from 4 am to 2 pm, the laundry has further reduced its labor costs by completing laundering and drying operations by noon.

Wash cycles have been shortened, and Shumsky credits the ozone system with almost completely eliminating rewash work.

"We use less labor for all the ozone laundering process, especially when it comes to special handling, of goods and equipment operation," he says.

## Compact and Cleansing

Perhaps the most noticeable differences between this laundry and a typical institutional laundry are the cool, comfortable work environment and the quality of the finished work.

"Ozone has improved our product quality," says Shumsky. "There are no more holes in our goods: tensile strength has improved. There's little or no shrinkage because of hot water use. The staff can make adjustments in the system, depending on the type of soil. We can shorten wash cycles, according to soil type. Our patients are pleased with the quality of goods."

Ozone is used to process the facility's entire inventory, including bed and table linen, personal clothing and reusable underpads. The underpads, manufactured by Medline Industries, have replaced many of the facility's disposable goods,

according to Shumsky, with each pad replacing an average of six to eight disposable pads daily. The HDO3-II ozone system has also produced another noticeable benefit: sewage and wastewater treatment volume have also been substantially reduced, though savings have not yet been quantified, says Shumsky. Additionally, the corona-discharge ozone system helps to improve overall air quality by killing odor-causing bacteria common in the drains.

"We pay \$26,000 every three months to dump waste water," he says. "We can probably save 60% or more of that with the new system."

Touted for its simplicity and compact size, *ClearWater Tech's* system - measuring 20 inches by 29 inches by 66 inches - saves Pine Haven's laundry 13 feet of space. Its compact features enabled the nursing home to remove the water tank, pump and ozone generator associated with the laundry's previous ozone system. "Floor space is important in the laundry," Shumsky notes. "We use a lot less floor space because we don't have all those 55-gallon drums of chemicals anymore. Those products add much more cost and labor and take up needed space. There's considerable energy involved in receiving, lifting and positioning the drums, even before you hook them up. Plus, there's the safety factor involved in handling them. What if a spill occurs, especially with chlorine?"

The laundry now uses 6-pound detergent pill capsules and liquid softener from 5-gallon pails. It uses 1.5 to 2 ounces of detergent per workload, depending on soil type.

"Much more space-efficient and easy to handle," Shumsky says of the capsules.

Equally important, staff members are no longer subject to contact with hot washers in the laundry, in which space is at a premium.

"Stainless steel washers become a danger to laundry workers because of the chance of being burned by temperatures of 160 or 170 degrees," Shumsky explains.

### Future Beckons

Shumsky, who has managed laundry operation here for 24 years, revamped the plant four years ago, installing new washing and drying systems manufactured by UniMac.

Statewide Machinery, headquartered in Rochester, N.Y., installed a 50-pound washer and two 75-pound and two 120-gas fired dryers.

Plans are in the works for further renovations and improvements. Shumsky is one who is never quite satisfied with the success he has achieved. With the help of Dan Dalhover, president of *Dal Equipment*, based on Port St. Lucie Fla., which installed the ozone

equipment, the laundry staff executed a smooth transition in use of the new system.

Dalhover's 25 years of experience in the laundry industry as a chief engineer and his knowledge of laundry systems benefited Pine Haven during the transition. Staff members were quickly brought up to speed with proper training to operate and monitor equipment. The laundry operates with three full-time and four part-time employees.

"What's different about this ozone system is not only its simplicity, but also the fact that *Dal Equipment* and *ClearWater Tech* stand behind it 500%," says Shumsky.

### Come a Long Way

Some early ozone laundry systems resembled "10th grade science projects," according to Shumsky, and didn't always enjoy a solid backing from their manufacturers.

"In the beginning, ozone systems sprang up everywhere," Dalhover says. "But did they function properly and did their manufacturers stand squarely behind them? did they offer extended product warranties? There were many Ford Pintos out there. I think that hurt the industry."

Shumsky compares his plant's system to a Cadillac and maintains that it will extend not only the life of his linen, but the life of his laundry machinery.

The ozone industry seems to have come a long way from the days when a marketing guru shocked members of a media organization by downing a glass of ozonated wash water from a heavily soiled load of goods as proof of ozone's capacity to sanitize.

"The ultimate proof of a good system is not in smoke and mirrors," Shumsky says. "It's in system performance."

*Richard Merli, who edited American Laundry News for 10 years, lives in Brooklyn, N.Y.*