



RESULTS

Red Lion: "Greener" Ways to Whiter Laundry

ONE IN A SERIES OF CASE STUDIES FEATURING BEST BUSINESS AWARD WINNERS

Red Lion Hotels is at it again. The company won a BEST Innovation award in 1993 for its energy and water conservation program. In 1996, it won another, for wastewater recovery and recycling improvements in its central laundry in southeast Portland. The facility, which handles laundry for seven Red Lions hotels and three other hotels, still produces the sparkling sheets, towels and table linens customers expect. But now it does so more "greenly."

The project is a model for the rest of the hospitality industry. It reflects this company's commitment to doing the right thing--for customers, the community and the environment.

The system

The new design replaces a 20-year-old conventional single-pass system with a pumped closed-loop system with three-phase micro-filtration and water recycling. The old system continually heated 52° F city water to 150° F and dumped it after a single use. Now, a microprocessor directs the new system to recycle 110° F water through a mechanical shaker screen, pressurized stainless steel strainer and into the submicron membrane filter. Together, they remove particulates to 0.5 microns. The filtered water is then heated by the

existing gas steam boiler to 150° F and run back through the washers.

Easy Installation, Careful Fine Tuning

Given its many benefits, the system was surprisingly portable, compact and easy to install. It was assembled in just eight hours and operational in one week. And, despite a substantial shake-down period to get it running ideally, it's a very cost-effective investment.

Performance

Although the system has increased electricity and maintenance costs slightly, it saves more than \$40,000 a year on the company's natural gas, water and sewer bills. The simple payback is 4.1 years.

In addition, the system reduces CO2 emissions by about 182 tons, extends boiler equipment life by 50% and is virtually transparent to system operators. Finally, the "greener" laundry has generated a lot of positive publicity for the company, the city and the industry.

Funding

Red Lion's cost-conscious and environmentally sensitive system attracted a lot of support and interest. Contributions included a \$78,000 grant

**BEST – BUSINESSES FOR AN ENVIRONMENTALLY
SUSTAINABLE TOMORROW**

1996 Award Winner

from the U.S. Department of Energy (USDOE) and a donation from PGE. In addition, the system will receive a 35% business energy tax credit from the Oregon Office of Energy. The company paid the balance of about \$100,000.

Monitoring

This is the first national demonstration project sponsored by the Hospitality Industry Forum for Energy Conservation, a new energy consortium organized by USDOE. Red Lion Hotels is a member. USDOE will distribute project results industry-wide.

The USDOE grant paid for half of the project costs and 12 months of sophisticated monitoring by the Pacific Northwest National Laboratory. The data helped PNNL and Red Lion Hotels improve performance.

What's ahead

Already, other major hotel chains have installed similar systems. Still others are studying the project. Red Lion is planning improvements at other locations.

"What we're doing fits well with our company's philosophy: to do what's right for Red Lion Hotels and the environment," says Bob Brewer, the company's corporate energy management coordinator. "We do that by the smart operation of our buildings, training our employees and making investments in energy-saving technologies. Red Lion Hotels' executive leaders have been very supportive of the project. It's been very rewarding."

For more information on Red Lion's laundry program, contact Greg Adams, general manager

for Double Tree (present owner of Red Lion Inns), at 503-238-1952.

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HOW TO...Monitor the performance of new equipment

- 1) Study state-of-the art systems. Look for independent third-party evaluations of the systems.
- 2) Have a mechanical engineer help estimate energy and water consumption before you upgrade. Proper system sizing is important and can save a substantial amount of money. Strongly consider monitoring energy and water use both pre- and post-installation.
- 3) Begin monitoring only after your new system has been stabilized. However, earlier monitoring may detect simple but costly errors or malfunctions.
- 4) Compare your results to federal studies.
- 5) Continue to monitor as long as possible.

Installing well-designed and resource-efficient systems isn't enough. Careful monitoring will ensure top performance, reduce maintenance and cut utility bills.

ENERGY

WASTE

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WATER

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