

WATER CONSERVATION CHECKLIST :



INDUSTRIAL LAUNDERING OPERATIONS

EVERY DROP COUNTS!

GETTING STARTED

These facilities are primarily engaged in supplying laundered uniforms (shirts and pants), garments, shop towels, mats, mops, barber and beauty shop towels, and restaurant bar towels to industrial or commercial users. Water is of vital importance to this industry, acting as the universal medium for the removal of soil and odor.

To reduce water consumption whether in an office or commercial/industrial setting, consider the three-step process below. Foremost, employees must understand how their job affects water use in their work environment. Solicit ideas from those most involved with the daily operations and activities of the organization. Make conserving water part of their job by having them identify where water is used, whether in bathrooms or manufacturing operations. Once the areas of water consumption have been determined, engage the employees to help implement conservation measures.

- Educate and involve employees on water conservation,
- Locate all water using sources (bathrooms, wash sinks, hoses, dish machines, HVAC, cooling water, etc.) in facility; and
- Identify and implement water conservation options.

IMMEDIATE AND NO OR LOW-COST CONSERVATION OPTIONS

- Monitor daily water usage in order to identify excess use.
- Increase employee awareness of the need to conserve water.
- Wash only full loads.
- Turn off and isolate steam supply to equipment when it is not in use.

SHORT TERM OPTIONS

- Determine if one washer or method of washing uses more water than others and schedule larger jobs on the most water efficient washers.
- Instruct maintenance personnel to routinely inspect and repair any leaking water or steam lines as well as pumps and valves.
- Implement soil-sorting procedures to ensure that heavily soiled materials are correctly sorted to minimize overwashing of lighter loads or to eliminate the need for rewashing.
- Conserve wash water by programming for each load both the number of cycles and the water fill level per cycle depending on whether fabrics are light, medium or heavily soiled.
- To facilitate usage of less rinse water, evaluate wash formulas to reduce the amount of water needed to clean each pound of laundry.

LONG TERM OPTIONS

- Install continuous batch washers with counter-current flow which uses up to 70 percent less water and steam than conventional washer extractors of similar capacity.
- Retrofit conventional washers with a holding tank to capture final rinse waters. This option provides an estimated water savings of 30 percent.
- Reuse cooler rinse waters in the presoak cycle to remove soils in light-colored garments before using hot water in wash cycles which can further set the soil into the garment.
- Minimize overall water usage by installing automated liquid injection wash systems or retrofit existing equipment where possible.



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- Install ozone systems for water, chemical and energy reductions. Ozone systems inject ozone gas into the wash waters which act as an oxidant and biocide allowing the usage of water at cold temperatures.
 - Modify industrial piping to reuse non-contact cooling water and steam condensate.

Charlotte's Marriott City Center Hotel achieved significant saving within five months after installing an ozone laundry system. The hotel, which has three washers and launders about 15 loads per day, reported saving of \$7,600. According to the facilities director, the ozone unit contributed to reductions in hot water usage, allowing the hotel to eliminate the need for an existing boiler. The ozone system has also led to reductions in gas consumption and chemical usage.

TECHNICAL LINKS

- LaundryESP** - <http://www.laundryesp.com/> - is designed to build on the industry's existing strengths of recycling and reusability and its more efficient use of resources (water, energy and wash chemicals) when compared to home laundering.
- Industrial Launderer Magazine** - <http://www.ilmagonline.com/>
- Pacific Northwest Pollution Prevention Resource Center's Industrial Laundry Links** - <http://www.pprc.org/pprc/sbap/laundry.html#links> - includes information of interest to industrial launderers to prevent pollution and comply with environmental regulations.



The North Carolina Division of Pollution Prevention and Environmental Assistance provides free, non-regulatory technical assistance and education on methods to eliminate, reduce, or recycle wastes before they become pollutants or require disposal. Call DPPEA at (919) 715-6500 or (800) 763-0136 or e-mail nowaste@p2pays.org, or visit DPPEA's Web site at <http://www.p2pays.org> for assistance with issues in this checklist or any of your waste reduction concerns.