

Re-designing for Efficiency

at The US Naval Academy - Annapolis, Maryland

The US Naval Academy Laundry and Drycleaning facility was instituted in 1929 primarily to service the laundry and uniform cleaning needs of all the Midshipmen trained at the prestigious Naval Academy in Annapolis, Maryland. The Naval Academy Laundry has gone through many changes to accommodate ever-changing seasonal uniform requirements of its Brigade of Midshipmen. In 1969 the laundry operation moved to its current location just outside the grounds of the Academy.

In 2006 the Naval Academy Laundry Facility began an extensive renovation and refitting program that is designed to continue to produce outstanding laundry and dry-cleaning for the Academy's 4400 midshipmen with the best laundering and dry-cleaning technology currently available. The ability to produce a quality, customized product, and the ability to meet a demanding pick-up and delivery schedule are the primary reasons for the existence of the on-premise USNA Laundry.

In addition to the normal daily services that are provided to the Brigade of Midshipmen, both male and female, the USNA Laundry takes on additional responsibilities with the advent of the Academy's Summer Plebe program every July and August. It is during this time that the USNA Laundry's processing capacity reaches its maximum; poundage increases and the turnaround time doubles.

Seven years ago equipment changes were instituted at the laundry plant to improve operating efficiency, reduce operating costs, ensure washing and finishing quality, as well as to ensure safe and sanitary processing for all textiles. An EnviroSaver II Ozone system was installed on all the washer extractors. This was accomplished on nine machines without any interruption to the laundry production needs.

The Ozone system was installed for many reasons. The main objectives were primarily to reduce the use of water and effluent, and to reduce fuel consumption for hot water. At that time the Academy Laundry was purchasing its steam from the Naval Academy main heating plant. The steam

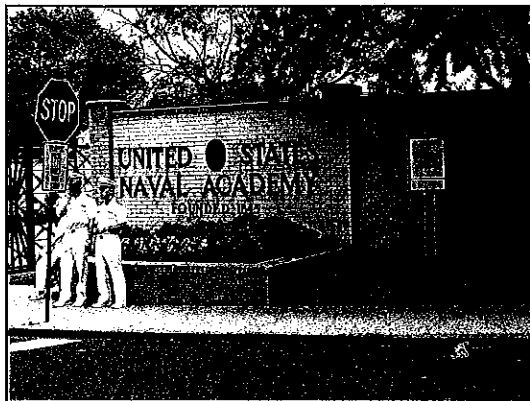
necessary for hot water had to travel a considerable distance to reach the Laundry; hence a lot of energy was lost in transit. This transit loss along with the high wash formula use of hot water was an expense that could be lowered and eventually was significantly lowered with the introduction of the Ozone wash formulas.

Another reason for installation of the Ozone system was to control bacteria both in the wash and in airborne vapors. The disinfecting quality provided by the Ozone system imparted a degree of sanitation several times more effective than the use of chlorine bleach alone.

To ensure that the operation would be as cost-efficient as possible, management of the USNA laundry facility adopted a profit center management plan. This profit center approach prompted the US Naval Academy laundry to upgrade and replace existing laundry equipment with a new plant design and new laundry equipment. An engineering consulting firm was hired to draw up and contract out a totally new facility for the Laundry operation. Part of the new design was to include an upgraded EnviroSaver II Ozone system along with an onsite boiler to make the reduced hot water demand as inexpensive as possible.

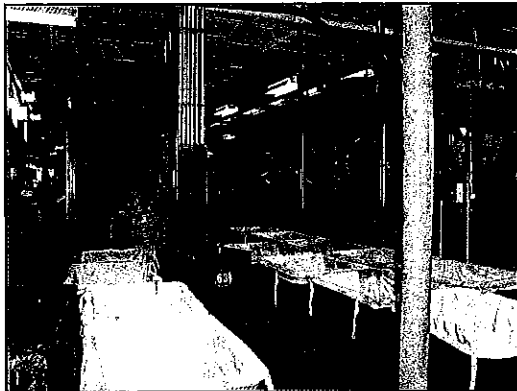
The newly reconfigured laundry facility is located in the same building as the original laundry facility. This operation takes up less room, is much more efficient and flexible to meet the demands of the Academy and the midshipmen. The new USNA Laundry is equipped with three 450# Braun washer extractors and two smaller UniMac units. The original dryers were upgraded to gas and the laundry now has its own 250 HP Boiler along with its own heat reclamation and waste water treatment system. WSI is the chemical company managing the wash formula performance along with the technical personnel of WET-TECH, the Ozone People.

The economic and environmental impact of this facility adds a new dimension to the Academy's bottom line (ROI?). The Profit Center concept for the Laundry and Drycleaning operation, when used as a business tool to reduce operating costs and improve on environmental issues, provided many benefits. The total reduction of water for washing purposes and going to the sewer for treatment, along with the reduced



fuel consumption for hot water, reduced chemical discharge from the WET-TECH and WSI reformulation, improved linen life along with better ambient air working conditions have shown that positive steps can mean positive results.

To quote the USNA Laundry's General Manger, Mr. Roger Schertzer "When you are looking to buy a laundry additive like Ozone, an Oxidizer, that reduces your need for hot water, sanitizes better than chlorine bleach, eliminates odor, saves wash formula time, acts as an anti-chlor and helps to reduce your waste discharge, then you should speak to the people from Wet-Tech." We have and the savings speak for themselves.



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