



Environmentally Preferable Products Purchasing Program Case Study



Going Green at the Chelsea Soldier's Home

Summary -The Chelsea Soldiers' Home (CHE), a multifaceted health care facility for eligible Massachusetts veterans that originally opened in 1882, has invested in several energy efficiency, renewable energy, and sustainable procurement (environmentally preferable products) efforts. The Soldiers' Home installed a new \$1.2 million roof on their largest campus building, a 60 kW solar PV installation, day lighting controls for hallways, and replaced older lights with high efficiency lighting systems. These improvements will reduce electricity usage by 150,000 kWh a year and save \$24,000 annually. In addition, the Solders' Home has converted all floor care, general, restroom cleaners and hand sanitizers to environmentally preferable alternatives.

Why did CHE go green?

- Going Green prevents accidents and promotes worker safety.
- Going Green provides a better living environment for the residents. It provides them with a nicer home.
- Going Green prevents family members and employees from bringing home harsh chemicals on their clothes.
- Going Green promotes cleaner waste water discharge.
- Going Green reduces pollution and carbon footprint -"Make the world a better place for our children and grandchildren"

"When stripping and mopping floors in the solariums with new green chemicals, it is no longer necessary for residents to leave the area."

Shawn Green - Director of Support Services.

Background:

Established in 1882, the Soldier's Home in Chelsea is a multifaceted health care facility available to eligible veterans of the Commonwealth of Massachusetts. The Soldiers Home is inspected annually by the Department of Veterans Affairs and the Department of Public Health. Its mission is to provide the best health care possible to eligible veterans who reside in the Commonwealth of Massachusetts.

Located atop Powder Horn Hill, the highest of the hills that semicircle Boston Harbor, The Soldier's home "campus" contains 13 buildings on 7 acres; the newest building was constructed in 1952. There are 170 patients in the Nursing home and 320 full-time residents. The Soldiers Home is really a small self-sustaining "city," featuring its own library, barber shops, an auditorium and recreation rooms, a dining room and canteen, and its own pharmacy. There are 400 employees.

Awards

- 2011 Leading by Example Award
- 2011 Earth Day Challenge
- 2011 Chelsea City Council Resolution for Environmental Stewardship

Accomplishments:

As of October, 2012:

- CSH has reduced its use of non-green chemicals over the last two years by 22,500 lbs.



In addition, by switching to green (ECO Seal) recycled paper CSH reduced an additional 31,000 pounds in non- green paper products. The CHE has virtually stopped using any non-green chemicals for facility janitorial needs.

- There were three vendor meetings with supply vendor Simplex before the transfer to green products. CHE’s first purchase of green mop buckets did not meet expectations. The vendor replaced them at no charge to the Commonwealth with a bucket that was more user-friendly and preferred by staff. Monthly meetings with staff examine chemical safety, machine core competencies and new cleaning methods.
- **Economic Benefits** - Over the past two years, CSH has experienced a 14% savings in cost of chemical purchases from \$42,000 in 2009 to \$36,000 in 2011. Through reorganization and the use of green chemicals the Environmental Service Department reduced its overtime from 2010 to 2011 by approximately \$131,000.
- **Bathroom Cleaners** - CHE now used Green Seal bathroom cleaners, hand-soaps, and hand sanitizers certified by EcoLogo.
- **Food Service** - Many of the Service cleaners are now Green Seal certified, and CHE is planning trials for the remaining detergents.
- **Floor Cleaning** - Reduction in Chemicals from Low Foam Cleaners to use of Green Products saves 23% to 30% of time by not having to remove old wax. The green wax is removed more easily by the green stripper. The green stripper has eliminated all odor complaints regarding harsh chemical odors with traditional non-green products. From using microfiber technology, CHE had reduced the need to throw away mops after 20 uses. They now get

400 uses out of every mop. They also use microfiber for dusting.

- **Recycling** - In 2010, CHE recycled 31.5 tons of paper and 7 tons of books. In 2011, CHE recycled 30.36 tons of paper which saved 91.08 cubic yards in the land fill and 124,536 KWH in energy. Additionally CHE recycled 5588 tons of books which reduced waste going to the landfill by 16.75 cubic yards and 22,921 KWH in energy. Furthermore, the Commonwealth received a check for \$533 from the book recycling company. The recycling also saved \$4,235 in landfill disposal expenses.
- **Renewable Energy Program** - Installation of photovoltaic System (solar panels on the roof) CHE was able to avoid the use of the following greenhouse gases since January 1, 2009:
 - 339,979 pounds of CO2
 - 494 pounds of NOX
 - 1489 pounds of SO2
- **Pest Control** - CHS has switched treatment protocols to include non-chemical measures and using less chemicals (80% approximate reduction) mixed with “Mother Earth D diatomaceous earth”, a safe natural organic compound.

“I have been coming here for nine years and I have never seen it cleaner.”

A Resident’s Father

For more information about Green Cleaning visit the [EPP Program website at www.mass.gov/EPP](http://www.mass.gov/EPP)