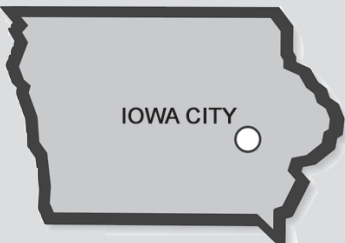


VA Medical Center



The Veterans Affairs (VA) Medical Center in Iowa City is a patient centered health care organization for United States veterans. It employs roughly 1,100 people and has 13 buildings on campus including education and research facilities. The VA is an active community partner and a backup for national emergencies.

Holly Moriarty, Environmental Engineering, University of Iowa

Project Background

The VA started a recycling program in October of 1989 and is currently recycling roughly 35 percent of its paper each year. A Refrigerant Management Memorandum was written in March of 2004 but has not been closely followed. The VA is in the process of switching its T-12 bulbs to T-8.

Incentives to Change

Although the VA has a good recycling program, it uses roughly 11.2 million sheets of paper per year and pays little attention to simply turning off lights when they are not in use. There are approximately 75 lbs of CFC containing refrigerant in some equipment.

Results

Refrigerant Management

A single user database was being used by maintenance to track refrigerant equipment inventory. However, other information including work orders, purchase orders and refrigerant addition and removal information were all kept in separate places. After contacting another VA, an access database containing the appropriate information for refrigerant management was identified. A survey was done on VA owned refrigerators and it was recommended that the 145 R-12, CFC containing refrigerators be replaced by Energy Star HFC containing refrigerators. By replacing these 145 refrigerators, 137,170 kWh will be saved annually and 75 lbs of CFCs will be removed from the station.

Lighting

Bathrooms were surveyed and it was found that they are used approximately three hours on an average day but the lights are kept on 24 hours in some places. Occupancy sensors are recommended in 110 bathrooms and have the potential to save 112,000 kWh per year. This will also require less maintenance because bulbs will have to be replaced 8 times less often.

Paper Reduction

The VA uses almost one million sheets of paper per month. Although it has a good recycling program, there is a need to reduce at the source. An ice cream social event was planned with information to promote environmental awareness. Information included setting computer defaults to print double-sided as well as what materials can be recycled and where bins are located was distributed. Employees were encouraged to shut off lights and computer monitors when they were not in use. With printing double-sided there is potential to save 2.88 million sheets of paper per year and \$14,400.



Air Pollutants Diverted in Tons

	Total for all sectors
SO2	0.72
CO	0.33
NOX	0.38
VOC	0.01
LEAD	0.0
PM	0.05

Green House Gases Diverted in Tons (CO2 Equivalent)

	Total for all sectors
CO2	146.4
CH4	6.0
N2O	3.3
CFCS	1.8

Project	Annual Cost Savings	Environmental Results	Status
REFRIGERATOR REPLACEMENT	\$6,162	137,170 kWh 75 lbs CFC removed from station	Recommended
LIGHTING	\$5,040	112,000 kWh	In process of implementation
PAPER REDUCTION	\$14,400	2.88 million sheets of paper LCA impacts 5,280 therms 45 tons trees 39.45 CO2 eq 31,190 solid waste	In process of implementation

