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The Use of Green Cleaning Products in Schools

Green cleaning generally refers to “the use of products and services that have a lesser or reduced impact on human health and the environment when compared with competing products or services that serve the same purpose.”¹ There is a growing trend around the country requiring schools and government buildings to use environmentally friendly cleaning products.² The use of chemicals in schools is essential for maintaining a clean and safe learning environment. Yet many chemicals in cleaning products can be harmful to human health and the environment.³

In an effort to promote spending on environmentally friendly products, the U.S. EPA established the Environmentally Preferable Purchasing (EPP) program “to encourage and assist Executive agencies in the purchase of environmentally preferable products and services.”⁴ The EPA also works to reduce harmful chemicals in schools and encourage green cleaning practices with its Schools Chemical Cleanout Campaign (SC3).⁵

Exposure and Health Related Issues Associated with Common Cleaners

Many schools are recognizing the potentially harmful effects of cleaning products used everyday. Children are particularly at risk for health problems from inhaling or otherwise becoming exposed to volatile organic compounds (VOCs), because children “breathe in more air with respect to their body mass than adults and thus have greater exposure to indoor

¹ President Barack Obama's Executive Order #13514, <http://edocket.access.gpo.gov/2009/pdf/E9-24518.pdf>.

² Ryan Foley, “More States Require ‘Green’ Cleaning Products,” *Associated Press*, January 27, 2010, accessed February 10, 2011, http://www.boston.com/news/education/k_12/articles/2010/01/27/more_states_require_green_cleaning_products/.

³ U.S. Environmental Protection Agency, “Schools Chemical Cleanout Campaign (SC3),” accessed February 10, 2011, <http://www.epa.gov/epawaste/partnerships/sc3/resources.htm>.

⁴ U.S. Environmental Protection Agency, “Greening Your Purchase of Cleaning Products: A Guide for Federal Purchasers,” accessed February 11, 2010, <http://www.epa.gov/epp/pubs/cleaning.htm>.

⁵ U.S. Environmental Protection Agency, “Schools Chemical Cleanout Campaign (SC3),” accessed February 10, 2011, <http://www.epa.gov/epawaste/partnerships/sc3/resources.htm>.

environmental pollutants.”⁶

The health of school employees is also at risk under the use of general cleaning products. Roughly 2.8 million janitors nation-wide use these chemicals daily, and estimated custodial chemical injuries costs around “\$25 million each year in lost time and workers compensation.”⁷ Washington State estimated 6 percent of janitors suffer a “job related injury from chemical exposure to cleaning products every year.”⁸

State Requirements for Green Cleaning Products

Currently, 20 states have either state mandates or guidelines that dictate the purchasing of green cleaning products in either state facilities or specifically in schools.⁹ The policies in each state, however, differ greatly. Of the 20 states that require green cleaning products, six have passed legislation at the state level, ten have executive orders, and the remaining four have either state contracts or purchasing guidelines that facilities must follow.¹⁰ Fifteen of the twenty states have guidelines that require states specifically to use products currently certified by *Green Seal* organization (a non-profit that certifies products).¹¹

Vermont

Under Executive Orders 02-04 and 14-03, state facilities in Vermont must adhere to specific guidelines when considering bids from companies in response to a request for proposal.¹² The guidelines in Vermont currently only specify that state owned and leased facilities must purchase and use Environmentally Preferred [Cleaning] Products (EPPs), which are defined in the orders as, “products that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purposes.”¹³ Vermont’s statewide legislation does not include any guidelines for product certification, such as a *Green Seal* certification. In April 2009, however, Vermont joined a cooperative 5-year contract with *Green Seal*, along with New York, Massachusetts, Connecticut,

⁶ “Cleaning Chemicals and Their Impact on Indoor Environments and Health,” Air Quality Sciences, accessed February 11, 2011, <http://www.aerias.org/uploads/Inhalation%20Risks%20From%20Cleaning%20Products.pdf>.

⁷ Barron, T. and L. Sutherland, *Environmentally preferable janitorial products: Issues and opportunities*. Pollution Prevention Review, 1999. 9(4): p. 17-25, accessed February 11, 2011.

⁸ U.S. Environmental Protection Agency, “Greening Your Purchase of Cleaning Products: A Guide for Federal Purchasers,” accessed February 11, 2010, <http://www.epa.gov/epp/pubs/cleaning.htm>.

⁹ “Why Green Cleaning: State Policies,” Healthy Schools Campaign, accessed February 10, 2011, <http://www.healthyschoolscampaign.org/programs/gcs/guide/wg-state-policies.html>.

¹⁰ Bill Balek, “Green Cleaning Product Procurement Policies, Initiatives, and Requirements in the U.S.,” The Worldwide Cleaning Industry Association, revised June 23, 2010, accessed February 10, 2011 <http://www.issa.com/data/File/regulatory/Green%20Cleaning%20Product%20Procurement%20Policies.pdf>.

¹¹ Balek, “Green Cleaning Product Procurement Policies, Initiatives, and Requirements in the U.S.”

¹² State of Vermont, Agency of Administration, Department of Building and General Services, “Administrative Policies -- Policy 0032,” accessed February 11, 2011, <http://bgs.vermont.gov/adminpolicies/policy32>

¹³ State of Vermont, Agency of Administration, Department of Building and General Services, “Administrative Policies -- Policy 0032.”

and New Hampshire, for purchasing green cleaning products, programs, equipment, and supplies.¹⁴ Vermont also allows for certain non-EPP products to be used with the approval by the Office of Purchasing and Contracting.¹⁵

Maryland

Maryland passed House Bill 1363 on May 7, 2009 requiring all public schools to use green cleaning products by October 9, 2009.¹⁶ Maryland's statute defines "green cleaning products and supplies" as those that have "positive environmental attributes" such as, "biodegradability; low toxicity; low VOC content; reduced packaging; and low life cycle energy use."¹⁷ Maryland requires green cleaning products be certified by either the U.S. EPA's *Design for the Environment* program (DfE), *EcoLogo*, *Green Label*, *U.S. Green Building Council* or *Green Seal*.¹⁸ Maryland allows schools to use existing cleaning products and supplies "before they transition to green cleaning products."¹⁹ Additionally, schools may opt out of implementing a green cleaning program if it is not "economically feasible."²⁰

Iowa

In April 2010, Iowa Governor Chet Culver signed into law legislation that would require public school districts, community colleges, institutions under the control of the state board of regents, and all state agencies to deplete their current supply of cleaning products and replace them with Environmentally Preferable Products as of July 1, 2012.²¹ As the legislation in Iowa has yet to take effect, they are still in the process of establishing guidelines as to what products will meet the standards of being an EPP. In their legislation, they define EPPs as either products defined by the state, or that meet nationally recognized standards, such as *Green Seal* or *EcoLogo* certification.²²

Connecticut

In Connecticut on April 17, 2006, Governor Rell signed Executive Order 14 requiring "all state agencies in the executive branch to procure and use, whenever practicable, environmentally

¹⁴ "Green governments and non-profits." Green Seal, accessed February 11, 2011.

<http://www.greenseal.org/GreenGovernmentsandNonprofits/ResourcesLinks.aspx>

¹⁵ State of Vermont, Agency of Administration, Department of Building and General Services, "Administrative Policies -- Policy 0032."

¹⁶ "House Bill 1363." State of Maryland. accessed February 11, 2011

<http://mlis.state.md.us/2009rs/bills/hb/hb1363e.pdf>

¹⁷ "House Bill 1363."

¹⁸ "House Bill 1363."

¹⁹ "House Bill 1363."

²⁰ "House Bill 1363."

²¹ "House File 823," General Assembly of the State of Iowa, accessed February 11, 2011

<http://coolice.legis.state.ia.us/Cool->

[ICE/default.asp?Category=BillInfo&Service=Billbook&ga=83&menu=text&hbill=HF823.](http://coolice.legis.state.ia.us/Cool-ICE/default.asp?Category=BillInfo&Service=Billbook&ga=83&menu=text&hbill=HF823)

²² "House File 823"

preferable cleaning and sanitizing products.”²³ The Executive Order also required the Department of Administrative Services to “provide standards and guidance to state agencies in connection with the implementation of the green cleaning procurement policies established in the Order.”²⁴ Connecticut defines “‘environmentally preferable cleaning’ products as products certified by *Green Seal*.”²⁵ On June 2, 2009, the Connecticut state House issued Public Act 09-91, creating a mandate for all schools to “procure and use” green cleaning products by July 1, 2011.²⁶

The Potential Cost of Green Cleaning Products

In the debate on green cleaning product policy, issues of cost-effectiveness and performance are at the forefront. A report entitled “The Real Costs of Institutional ‘Green’ Cleaning” by Espinoza, Geiger, and Everson found that the prices of green products were not significantly different from those of equivalent conventional products.²⁷ The report concluded that although green cleaning products are generally perceived as more costly, “improved cleaning and purchasing practices offer opportunities for cost savings.”²⁸ These savings stem from improved technology in product application methods. Microfiber mops save water and labor costs. Concentrated green cleaning products with automatic dilution equipment reduce transportation, water, and energy costs associated with shipping ready-to-use conventional products. “Conventional cleaning products will continue to move towards concentrates, if possible, because of the potential for savings.”²⁹

Cooperative Procurement Contracts are another means of reducing the cost of implementing green cleaning products and practices. “High-volume contracts carry substantial potential for savings when government purchasers act together. Substantial cost savings can be obtained through leveraged purchasing power.”³⁰ An example of this was in 2007, when region-wide contracts through the Western States Contracting Alliance secured the states of Oregon, Washington, Colorado, Nevada, and Utah a 45-50% savings on a wide variety of institutional-grade cleaning products across different product categories through a cooperative contract with WAXIE Sanitary Supply.³¹ As more states switch to environmentally preferable institutional-grade cleaning products, “the scale of the demand shift will change the landscape for future prices. Green products will naturally become increasingly cost competitive due to an

²³ “An Act Concerning Green Cleaning Products in Schools: Act 09-81,” State of Connecticut, accessed February 11, 2011. <http://www.cga.ct.gov/2009/ACT/PA/2009PA-00081-R00HB-06496-PA.htm>.

²⁴ “An Act Concerning Green Cleaning Products in Schools: Act 09-81.”

²⁵ “Governor Rell: Executive Order No. 14” State of Connecticut, accessed February 11, 2011. <http://www.ct.gov/governorrell/cwp/view.asp?a=1719&Q=312904&PM=1>.

²⁶ “An Act Concerning Green Cleaning Products in Schools: Act 09-81.”

²⁷ Tyler Espinoza, Chris Geiger, and Iryna Everson, “The Real Cost of Cleaning Products,” San Francisco Department of the Environment, accessed February 11, 2010, www.sfenvironment.org/downloads/library/the_real_costs_of_green_cleaning_v6.pdf

²⁸ Espinoza et al., “The Real Cost of Cleaning Products”

²⁹ Espinoza et al., “The Real Cost of Cleaning Products”

³⁰ Espinoza et al., “The Real Cost of Cleaning Products”

³¹ Western States Contracting Alliance. WAXIE Contract Information. <http://waxie.com/wsca.html>

increase in production and competition on the supply side in response to the increased demand.”³²

Conclusion

It is clear the growing trend among states has been to implement a policy that requires most state buildings, including public schools, to use products that are better for the environment, for the people exposed to them, and can be more cost effective. While Vermont’s current executive orders require the use of Environmentally Preferable Products, the lack of guidelines as to what specific products are to be used leave room for interpretation of what products can be used.³³ To address this issue, most other states that have implemented policies regarding the use of green cleaning products in state facilities have also amended their legislation to include guidelines that require the use of products certified by a third party organization, such as *Green Seal*, or *EcoLogo*.³⁴

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Disclaimer: This report has been compiled by undergraduate students at the University of Vermont under the supervision of Professor Anthony Gierzynski. The material contained in the report does not reflect the official policy of the University of Vermont.

³² Espinoza et al., “The Real Cost of Cleaning Products”

³³ “Administrative Policies -- Policy 0032,” State of Vermont: Agency of Administration, Department of Building and General Services, Accessed February 11, 2011 <http://bgs.vermont.gov/adminpolicies/policy32>

³⁴ Balek, “Green Cleaning Product Procurement Policies, Initiatives, and Requirements in the U.S.”