



Fiscal Year 2013 Annual Report of the Environmentally Preferable Purchasing Toxics Reduction Task Force

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In collaboration with:

Massachusetts Operational Services Division (OSD)

Massachusetts Department of Environmental Protection (MassDEP)

Massachusetts Department of Public Health (DPH)

Massachusetts Executive Office of Labor and Workforce Development, Department of Labor Standards (DLS)

Toxics Use Reduction Institute (TURI)

Executive Summary

In 2009, Governor Deval Patrick issued Executive Order 515, mandating that executive state agencies make the switch from ordinary products to environmentally preferable products, whenever they represent the “best value” for the job. E.O. 515 also created the Toxics Reduction Task Force to provide targeted technical assistance and guidance to agencies. This is the fifth annual report on the efforts of the Task Force.

For several years, the Task Force has focused on green cleaners, judging that they constitute a significant opportunity for environmental benefits, including reductions in water pollution and exposures that are associated with increasing rates of asthma. In 2013, the Task Force established a means of measuring progress in this area, and found that purchases of cleaners with reliable green certifications have increased nearly three-fold, from \$1,213,225 in 2010 to \$3,467,811 in 2013.

The Task Force developed and delivered training designed to promote a “green transition” that is centered on engagement with relevant staff and continuous improvement, rather than a one-time switch from product A to product B. The Task Force focuses on the process rather than a simple product use change because its research and experience in the field showed that many staff had negative perceptions of green cleaners that resulted from such one-time, mandated changes, in which they played no part. The training received enthusiastic reviews from participants and has resulted in increased adoption of green cleaning.

A new webpage tells the story of successful switches to green cleaning at the Department of Conservation and Recreation and the Chelsea Soldier’s Home. These projects have brought cost savings as well as environmental benefits, countering common assumptions that green initiatives come with a higher price tag. The webpage also contains new guidance on the appropriate use of disinfectants and sanitizers. (The Task Force identified overuse of toxic disinfectants as an important issue, and worked with public health experts to develop its guidance). The Task Force helped Massachusetts Operational Services Division (OSD) establish new categories of environmentally preferable products and services (laundry detergents and contract janitorial services), and created an “Approved Products List” to help agencies and others quickly find information about products that have not only been assessed as greener, but have also been shown to be effective cleaners.

Introduction

This report examines the progress made during Fiscal Year 2013 (July 1, 2012 - June 30, 2013) by the Massachusetts' Toxics Reduction Task Force in minimizing purchases of toxic substances by the Commonwealth's Executive state agencies, as directed in Executive Order (E.O.) 515.¹ It is the fifth progress update on this interagency collaborative effort. At the beginning of FY13 the Task Force established the following goals for its work:

- Develop product-specific guidance documents to assist state agency staff in identifying green cleaners
- Create and execute training for agencies on transitioning to green cleaning practices
- Issue a janitorial cleaning services contract
- Identify greener disinfectants
- Establish a contract for greener dishwashing and laundry detergents

All of these goals were met, as described below. Additional information can be found on the Environmentally Preferable Products (EPP) website: <http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/>.

The Task Force faced difficulties in using existing purchasing data to produce a reliable system for monitoring green purchasing, (see ***Tracking Results*** below), but succeeded in tracking purchases of the key category of green cleaners (including cleaning-related equipment and products such as buckets, towels, vacuum cleaner bags). Purchases from vendors approved as providers of environmentally preferable cleaners nearly tripled over four years – from \$1,213,225 in 2010 to \$3,467,811 in 2013.

From 2010 to 2013 purchases from the statewide contract for environmentally preferable cleaners increased 286%.

¹ The Executive Order reads in part: “through the procurement of environmentally preferable products and services, large institutions such as the Commonwealth of Massachusetts can directly reduce the environmental and health-related impacts of its consumption, lower life-cycle costs, promote local economic development, and serve as a model for businesses, institutions, and individual residents”.

<http://www.mass.gov/governor/legislationexecorder/executiveorder/executive-order-no-515.html>

Transition to greener cleaners reduces water and air pollution, the incidence of asthma and dermal sensitivity, the potential for burns and contamination from accidents, and the costs of managing hazardous materials.

Background

Environmentally Preferable Products (EPPs) are those products that have a reduced impact on the environment and public health when compared to other products that serve the same purpose. When the Commonwealth first identified environmentally preferable products, few reliable third-party certifications existed. Working with other states and with the assistance of the Responsible Purchasing Network, (a national organization dedicated to assisting organizations with environmental purchasing), the Commonwealth has determined that *GreenSeal* and *Ecologo* certifications are acceptable. These certifications meet the highest standards set forth in ISO 14020 and 14024 environmental label guidelines.² Products meet criteria developed through open, stakeholder-based processes. Both *GreenSeal* and *Ecologo* conduct on-site audits, update their standards regularly, and base their certifications on scientific criteria and evaluations of product effectiveness.

Until 2009, OSD's designations of products and services as environmentally preferable were advisory in nature, but in that year E.O. 515 required all Commonwealth Executive Departments to procure EPPs and services whenever such products and services are readily available, perform satisfactorily, and represent the best value to the Commonwealth. State agencies of the executive branch are required to use the state contracts, but other entities, such as authorities, municipal facilities, offices of the judiciary or legislature, and agencies of other states in the region may also use the contracts, receiving the same discounts and negotiated conditions. Once qualified products and services have been publicly identified as environmentally preferable, many private businesses, organizations, and individuals find it a useful guide to greening operations through purchasing. The interagency "Toxics Reduction Task Force", overseen by OSD and OTA, and consisting of staff from the Department of Environmental Protection, the Department of Public Health, the Department of Labor Standards, and the Toxics Use Reduction Institute, was charged with providing assistance in implementing the Order.

² The International Organization for Standards develops international standards through a consensus process, whose members include 164 national standard-setting bodies. The 14020 standard consists of general principles that apply to environmental labeling and claims, to promote accurate, verifiable and relevant information. The 14024 standard applies to programs that provide a seal of approval. See: <http://www.iso.org/iso/environmental-labelling.pdf>.

Tracking Results

Since FY2010, the Task Force has examined purchases of environmentally preferable janitorial cleaners. The category was selected because it represents the most significant chemical use in terms of prevalence and quantity, and many cleaners have presented hazards to workers and the environment that can be avoided. The Task Force identified the agencies with the highest volume purchases of janitorial cleaners, anomalies, and contacted staff from the agencies to resolve those problems. The Task Force also attempted to assess actual cleaning practices and understand whether the transition to greener cleaners is occurring, and how to ensure that standards are not compromised during such a transition.

The original aim of the Task Force was to calculate the percentage of EPP cleaner purchases to overall purchases for each agency, to track annual progress towards compliance with the Executive Order. However, sorting out cleaning chemical purchases from the enormous amount of data submitted was a resource-intensive task. Data sources included the Massachusetts Management Accounting and Reporting System (MMARS) and Vendor Reports. Cleaning purchases were recorded in these systems in various ways. In MMARS and in some vendor reports, cleaning chemicals are not separated from cleaning equipment. Some purchases were made off-contract or through other statewide contracts (such as the grocery contract, *FAC79: GRO*). The Task Force found that each agency had a different system for approving and monitoring purchasing and the ability of each agency to investigate and resolve questions was variable. The comptroller has now established a new sub-object code for “janitorial cleaners” to be used in recording purchases in MMARS, which should make it easier to accurately track cleaner purchases as agencies learn to use the code.

Tracking use is only an indicator of the implementation of green cleaning. When excessive use of cleaning chemicals is corrected, purchases of cleaners will go down. Purchases of cleaning chemicals can also decline when agencies switch to alternative nonchemical methods, such as pressurized water cleaners, or institute measures that reduce the need for cleaning, such as floor mats. It may be possible to discern this cause for a decline in purchases if purchases of relevant equipment can be tracked and correlated.

Nevertheless, rising trends in purchases of green cleaners certainly indicate adoption of green cleaning. Overall trends in purchases from the Commonwealth’s contract for EPP cleaners, (FAC59) show a continuous and substantial increase in purchases of green cleaners. In 2010, \$890,057 was spent on green cleaner purchases by executive agencies from the vendors qualifying to provide green cleaning products and services under the *FAC59* contract, but by 2013, purchases from executive agencies from that contract totaled \$2,281,171, an increase of 250 percent. The trend for all years is shown in Figure 1 below:

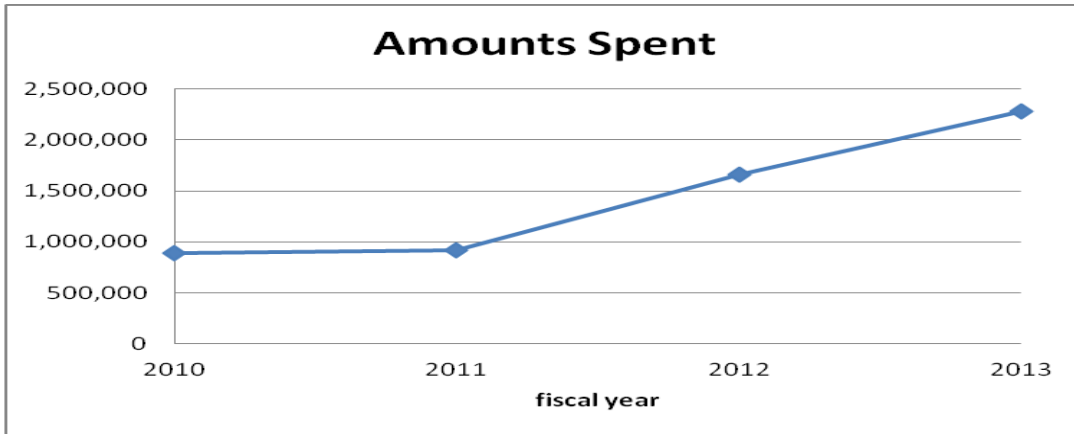


Figure 1: Total purchases of green cleaning products and services by executive agencies

Agencies classified as “executive” are covered by E.O. 515. Although non-executive agencies, such as sheriff’s offices, or the trial court, are not required to use EPP contracts, they have access to them and may purchase at the same terms and prices as the executive agencies. These agencies spent \$323,167 on green cleaners in 2010 and \$1,186,640 in 2013, an increase of 367 percent.

Altogether the agencies of the Commonwealth increased purchases of green cleaning products and services from \$1,213,225 in 2010 to \$3,467,811 in 2013, a 286 percent increase, as shown below in Figure 2.

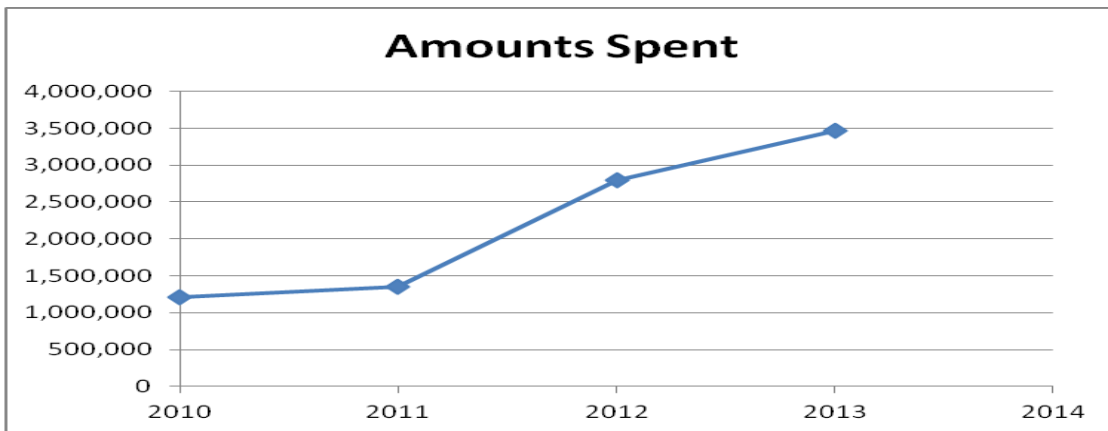


Figure 2: Total purchases of green products and services by all state agencies

Assistance

In 2011, the Task Force began developing tailored assistance to individual agencies on making the transition to green cleaning. For the Department of Corrections, which makes up its own cleaners from raw materials, the Task Force assisted DOC in understanding how it could obtain certifications to identify its cleaners as green and be eligible for addition to the *FAC59* state

contract. In the case of the Chelsea Soldiers' Home, when it was learned that the facility managers had already made great strides on their own, the Task Force created a case study, to share information with other state agencies.³ For the Department of Conservation and Recreation (DCR) the Task Force developed training to help the agency to institute green cleaning. The training, which can be applied to any agency or organization, has the following intent:

- To focus on the establishment of a process for the evaluation of green cleaners, instead of a top-down mandated transition
- To create “buy-in” by all staff levels
- To put in place a process that will enable an organization to keep up with new developments, such as improvements in green cleaners or cleaning practices
- To clarify the distinctions between disinfection and cleaning, a key step in detoxification of routine operations, reducing exposures, and improving cleaning outcomes
- To lead to standard methods for producing and verifying effective results
- To promote an understanding of the reasons for a green cleaning transition and the benefits that can result
- To offer onsite technical assistance to facilities
- To prompt sharing of information and coordination between facilities.

The Task Force developed this focus on instituting a process because its research showed that many staff had negative perceptions of green cleaners that resulted from such one-time, mandated changes, in which they played no part. Managers were helped to see the value of a green cleaning transition that garners widespread support and which continuously improves, as opposed to one in which workers are told to stop using a cleaner that they feel works. A mandated transition to a cleaner that is not perceived as effective, even if workplace exposures are expected to be reduced, can result in resentment and disparagement of the new product.

In FY2013, a survey was conducted to inform the Task Force about how the Task Force should approach the job of enlisting support. Throughout FY 2013 the Task Force engaged various DCR managers in planning the trainings. These efforts have paid off in a strong commitment by DCR management to green cleaning. As a result of the trainings OTA and TURI were invited to make onsite visits to DCR facilities and work one-on-one with DCR staff.

³ <http://www.mass.gov/anf/docs/osd/epp/fact-sheets/chelseasoldiershomeflyer.pdf>

Requests were made for assistance with persistent bathroom odors. At Bradley Palmer State Park, this problem was successfully addressed. Facility manager Richard Scott worked with Heidi Wilcox of TURI's Cleaning Lab to switch from bleach to peroxide- and enzyme-based products that have cleaned well, eliminated odors, and at the same time reduced the impact on staff and releases to the environment.⁴ Since this success, Richard has told his story as part of the Task Force team that conducts training. The advice provided to DCR employees thus comes from someone they know understands their constraints and the expectations they face. Richard also brings a significant amount of enthusiasm to the task.

Spotlight: Bradley Palmer State Park Transitions to Green Cleaning

At Bradley Palmer State Park, a 721 acre park located in Topsfield, bleach was being used for cleaning the bathrooms and other areas, and park supervisors were aware that use of bleach for this purpose can cause problems for workers, such as burns from accidental spills, or respiratory complications from repeated exposure. In addition, the routine discharge of chlorine-based cleaners is known to result in the formation of toxic organochlorine compounds in the environment. Finally, the use of bleach to combat urine and other unpleasant bathroom smells was only temporarily effective in that it provided a disguising odor that people associate with cleanliness, but it did not address the underlying problem of a buildup of uric acid in grout and building materials.

In 2011, representatives from the park attended a Green Cleaning Workshop at DEP and learned more about the science behind the green cleaning products on state contract. At the training, they learned that products on State Contract *FAC59 (Environmentally Preferable Cleaning Products, Programs, Equipment and Supplies)* were effective and that the approved

⁴ See the full case study at: <http://www.mass.gov/anf/docs/osd/epp/fact-sheets/2-18-bradley-palmer-green-cleaning-case-study.pdf>.

Bradley State Park (continued)

products did not present the concerns for worker exposure, asthma, or environmental discharge that they would prefer to eliminate. The park purchased and began using two products from FAC59 to clean many of their bathrooms and the pool area. The initial purchase was 2 years' worth of product; however they have found that the product has lasted close to 3 years.

The initial expectation of many upon learning that they are expected to switch to EPP products is that they will do so if there is a corresponding increase in their budget, as many green products cost more than the conventional products they have been using. However, because the products Bradley Palmer State Park used were very effective, and are dispensed efficiently, less cleaners overall are needed, and the park has saved money.

The park has been using two products: 120 Peroxide Multi-surface Cleaner, and Product Central 121 Pro-Zyme: APC, Odor Control & Waste Degradar. Both products come with a dispensing system that mechanically adds the concentrated cleaner to the application bottles. This system virtually eliminates the risk of spills in transferring chemicals, and thus protects workers, as well as ensuring that the right amount is used. The Pro-Zyme is composed of enzymes that attack the uric acid buildup. It requires some time to work, and did not show an effect right away. But now the odor problem that was formerly covered up with bleach odor no longer exists, vastly improving customer satisfaction at the park. Bleach is still used where appropriate, for example, for areas soiled with blood or vomit, in order to ensure disinfection per public health code, but the park has been working with TURI to identify a working substitution.

Green Cleaning at Chelsea Soldier's Home

Chelsea Soldier's Home (CSH), a 13-building facility with nearly 500 patients or residents, implemented a green cleaning program that encompassed bathroom cleaning, hand soaps, sanitizers, food service cleaners, and floor cleaning. The floor cleaning change illustrated an important strategy in greening operations: evaluating the reason that toxic materials are used in the first place. Many facilities use harsh chemicals to strip the wax from floors as a preliminary step to rewaxing. CSH changed its floor wax to a greener product: this now meant that it could be removed with safer chemicals. Going to the source of the problem can create new possibilities.

Altogether, CSH's actions reduced thousands of pounds of chemical use (cleaning and stripping chemicals), overtime labor costs, and odor complaints, saving the facility more than \$100,000 a

year. The Task Force published a case study of the facility's accomplishments at: <http://www.mass.gov/anf/docs/osd/epp/fact-sheets/chelseasoldiershomeflyer.pdf>.

Other Work Products

In addition to the case studies noted above, in FY 13 the Task Force produced several other products intended to help agencies transition to green purchasing. These included:

- Guidance on Disinfection and Sanitization
- *An Approved Products List*
- An EPP contract for laundry and dishware washing
- Fact Sheets.⁵
- Equipment and Equipment Demonstrations
- An EPP contract for janitorial services

Guidance on Disinfection and Sanitization

The Task Force found through its interactions with agency staff responsible for cleaning that the overuse of bleach is quite common. Bleach is associated with asthma, particularly in the workplace, and bleach discharges can lead to long-lived and toxic byproducts when chlorine combines with organic materials. The Task Force found at many locations that although the primary purpose of bleach use is for disinfection, bleach was often used to provide an odor that would cover up unpleasant smells in bathrooms, or to provide a smell that is perceived as clean. Many staff use bleach or products that combine cleaners and disinfectants, as cleaners, when these products are most appropriately used in sequence, and only when needed. For example, if you don't clean first, disinfectants may not even reach the surface that harbors microorganisms. Although well-intentioned and surely protective in many respects, much use of disinfectants or sanitizers amounts to an unnecessary dissemination of toxins which can have many unintended adverse impacts.

⁵ All of the above can be found at: <http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/green-products-and-serv/specific-epp-statewide-contracts/green-cleaning-products.html>.

Disinfectants and sanitizers⁶ are toxic chemicals, designed to effectively kill microorganisms. In addition, the overuse of disinfectants and sanitizers has been identified as a cause of the development of resistant strains of infectious organisms. It is important to public health to effectively disinfect or sanitize surfaces whose contamination causes the transmission of disease. Therefore, it is very important to find the right balance and devise the appropriate guidance so that disinfectants and sanitizers are used appropriately – to render surfaces safe when needed, and not to be used in such a way as to cause needless toxic exposures and impacts.

The FY 12 Annual Report describes how the Task Force identified a number of environmentally preferable products that agencies can use to reduce concerns with asthma, the generation of resistant strains, and toxic effects that have impacts beyond the targeted organisms. In FY13, in order to help agencies sort out when and how to use disinfectants, the Task Force developed guiding principles that it has communicated in workshops and communications, in a fact sheet on cleaning bathrooms, and advice on selecting disinfectant products.⁷ The Task Force’s outreach and training incorporates the following basic principles:

Never use a disinfectant or sanitizer to clean. Disinfectants and sanitizers cannot effectively do their job unless soils are first removed from the surface intended to be rendered clean and safe. Cleaners or cleaning processes (such as mechanical cleaning or pressure washing) should be used first, so that the disinfectant can reach the surface to do its job.

Follow directions carefully. Disinfectants and sanitizers are designed to work with specific dwell times and may not effectively perform if they are wiped up before the specified time has elapsed. A standard operating procedure can help ensure that workers use the material in accordance with established measures of effectiveness.

Use disinfectants and sanitizers strategically. A standard set of cleaning procedures should recognize routes of transmission. Considering “touch points”, such as sink handles that are touched after toilet use, leads to a strategic approach to cleaning. Using disinfectants after cleaning vomit, blood, or feces is considered essential. But using them in high-traffic areas in the absence of such need may have no impact. Using them on a window is questionable without indication that the window is a location for transmission.

⁶ The distinction between a disinfectant and a sanitizer is one of the degree of effectiveness in killing target microorganisms. Sanitizers reduce undesired organisms to safe levels. Disinfectants are intended to eliminate the presence of the microorganism. Some materials are intended to be used both for disinfection and for sanitizing, by adjusting the level of concentration.

⁷ <http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/green-products-and-serv/specific-epp-statewide-contracts/green-cleaning-products.html>

Match the product to the need. Each product that is marketed as a disinfectant or sanitizer has been approved for such use by EPA or the FDA. Approval requires verification of the effectiveness of that product for killing certain organisms. Food-contact surface sanitizers (FCSSs) are required for treating pre-cleaned surfaces that come in direct contact with food (primarily in the kitchen). FCSSs are registered to kill *Escherichia coli* and *Staphylococcus aureus*, and potentially other food-borne pathogens. A disinfectant registered with EPA claiming efficacy against bloodborne pathogens (Hepatitis B and C, and HIV) is needed if there is an incident resulting in contamination with blood or certain other bodily fluids.⁸ Disinfectants with registered efficacy against Norovirus, MRSA, (Methicillin-resistant *Staphylococcus Aureus*) and other significant concerns may be needed for use in the event of an outbreak.

Know about safer alternatives. Recent evaluations show that steam cleaning is extremely effective,⁹ although steam cleaners may be inefficient to use in a particular setting. In general, products containing ortho-phenylphenol, chlorine bleach, quaternary ammonium chloride compounds (“quats”), pine oil, hydrochloric acid, or peroxyacetic acid pose potential health risks; and less-toxic active ingredients are available such as accelerated hydrogen peroxide, citric acid, lactic acid, caprylic acid, or thymol, though they may not always match need or cost constraints. Aerosol versions should be avoided. Cleaning products packaged in aerosol containers are among the most expensive product formulations. The average aerosol can contains approximately 60 percent propellant, making the per-unit cost of the product high compared to non-aerosol delivery systems. Most propellants also have human health and environmental impacts (e.g., flammability), and the use of aerosol products increases exposure because the product is delivered in a fine mist, which can be inhaled and increase exposure.

Train and protect workers. State worker right-to-know rules apply to the use of these hazardous materials.¹⁰ State workers must receive training both initially and annually on the hazards associated with these chemicals and the appropriate means of protection. In general, the use of gloves and eye protection is advisable when using any hazardous

⁸ See the Cal/OSHA guidelines (recommended by the federal OSHA) *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*: http://www.dir.ca.gov/dosh/dosh_publications/BBPBest1.pdf.

⁹ Through TURI the Task Force learned of the work of Dr. Nancy Goodyear at the University of Massachusetts at Lowell, who has demonstrated effective disinfection with commercially available equipment. See, for example: http://www.ciriscience.org/a_334-Study_Shows_TANCS_Steam_Vapor_System_Disinfects_Through_a_Variety_of_Textile_Types.

¹⁰ M.G.L. ch. 111F, and the regulations promulgated thereunder, 454 CMR 21.00.

liquids, but-right-to-know training is needed to cover any other personal protections required in a Material Safety Data Sheet, to know how to address exposures, and to understand the hazards each product presents.¹¹ Good ventilation is essential to avoid intake through respiration. Common sense can go a long way in reducing respiratory exposures, by considering odor and opening windows and doors to direct air flow away from the breathing zone when possible. Awareness of these issues can reduce excessive use of chemicals. Such practices can also protect the public from lingering indoor air impacts. Using automated dispensing systems where feasible is a method of preventing accidents in pouring, a frequent cause of spills, exposures, and overuse.

Approved Products List

The essential Task Force recommendation to agencies has been to try the products that are listed on the EPP contract for green cleaners, statewide contract *FAC59*. But agency employees have had difficulty navigating Comm-Pass, the Commonwealth's procurement database (until FY 14, during which a transition occurred to COMMBUYS). In order to make it easier to view individual pricing sheets from vendors, and compare pricing for products, OSD produced an *Approved Products List* that organizes the products by categories and vendors and provides key details for selecting among them. The final *List* (completed in FY14) has received much positive feedback on its ease of use.¹²

Other Publications

OSD posted a new webpage dedicated to *Green Cleaning Products, Programs, Equipment and Supplies*,¹³ where agency staff can find a *Contract User Guide*, a *Fact Sheet on Cleaning Bathrooms*, *Frequently Asked Questions concerning EPPs*, links to relevant resources, and a list of noncertified sanitizers and disinfectants that agencies may need to purchase. (Certifications of these products which are toxic by design, as environmentally preferable, are in development). The list of noncertified sanitizers and disinfectants includes criteria for such products that represent a lesser impact to public health and the environment, while ensuring efficacy and high performance.

¹¹ The Globally Harmonized System for hazard communication has resulted in the renaming of MSDSs as SDSs – Safety Data Sheets.

¹² <http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/>.

¹³ <http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/green-products-and-serv/specific-epp-statewide-contracts/green-cleaning-products.html>.

Laundry Detergents

As of April 1, 2013, laundry and dishware washing detergents were phased out of the *FAC76: Maintenance, Repair and Operations* contract. New EPP standards needed to be created, but existing standards for laundry detergents established by reputable third-party certifiers are several years old. Green Seal and EcoLogo were in the process of developing new standards but had not yet done so. The Task Force developed a set of 17 screening criteria, using those in the *Draft Green Seal 48 Criteria for Laundry Products* and in Minnesota's green cleaners bid. OSD helped vendors with submissions and verifications, and the TURI lab helped screen applications for appropriate data. Twelve products were approved for contract use. Green Seal has since published its *GS48 Standards for Laundry Detergents*, which will be considered in the rebid of the *FAC59* contract in the fall of 2014 in order to add more products to the contract.

Janitorial Services Contract

The OSD formed a Sourcing Team to re-bid the expiring statewide contract *FAC79: Janitorial Services, Environmentally Preferable* contract. Much of the work to develop the new RFP was completed in the summer of 2013, although the RFP, bidding, and scoring happened in FY14. Vendors were required to verify that the green cleaning products that they would use on the contract were listed on the *FAC59 Approved Products List*, or that they were certified by either GreenSeal or Ecologo.

Equipment Demonstrations

At the start of FY2013, Task Force members from OTA, OSD and TURI's laboratory delivered the first of several trainings in green cleaning at a workshop hosted by the Massachusetts Facility Managers Association (MAFMA). Attendees included a mix of supervisors, members of purchasing departments, and staff responsible for carrying out the cleaning tasks. As described above, the trainings have included presentations on how green cleaning should be implemented (stressing continuous evaluation and working as a team) and why it is important, and included interactive discussions in order to assess and address questions and attitudes that might be barriers to successful implementation.

The trainings also consisted of equipment demonstrations. Products demonstrated at this and similar events included the Kaivac "touchless" high pressure water wash system, the Geneon Trio onsite cleaner and sanitizing solution generator, and an advanced steam cleaner called the Mondo Vap. The Geneon uses tap water, potassium, citric acid, sodium chloride and electricity to produce hypochlorous acid, which can be used as a glass cleaning solution, an all purpose cleaner, a heavy duty degreaser and a food grade sanitizing solution. Hypochlorous acid is considered to be less toxic than bleach, and is not associated with asthma. The solutions are generated on site, as needed, requiring no storage or shipment.

Equipment has also been displayed at the MassBuys conference, and made available for state employees to try through the “MAFMA Tool Barn”, an equipment-lending service run by the Massachusetts Facility Managers Association. Equipment demonstrations have proved to be an important feature of green cleaning training, and provide the possibility of eliminating the use or storage of chemicals and thus risks of exposure and contamination, as well as pollution from shipments, and container waste.

Moving Forward

In FY14, the Task Force has plans to continue its training on transitioning to green cleaning at the Department of Conservation and Recreation and other agencies. The Task Force will seek resolution of questions that have arisen concerning the use of alternative disinfectants – current practices for measuring whether disinfection processes are adequate tend to assume the use of bleach: new methods of disinfection require the acceptance of new measures of measurement of effectiveness. The Task Force will also work with the Division of Capital Asset Management and Maintenance (the oversight agency for state facilities) on its management standards, to ensure concordance with purchasing contracts.

The Task Force will focus on other issues, selecting new areas of focus where purchasing can be changed and better results are obtainable, while bringing about reductions in toxic exposures and discharges. For example, the Task Force will examine the state’s Integrated Pest Management contract and the use of pesticides by agencies of the Commonwealth. The Task Force may also examine the use of building materials such as insulation, which may contain toxic chemicals, and renovation services, to ensure that toxic dusts and wastes are properly managed. The Task Force will provide offers of assistance to state agencies and respond as requested. The Task Force will continue to examine the available data on EPP purchases, and will examine the new COMMBUYS system to see if its arrival presents opportunities to improve tracking of EPP purchases.

In all the work that it does, the Task Force will try to better understand the barriers and constraints to increasing implementation of greener purchasing, and seek the most efficient and effective means of overcoming them. The EPP Task Force will attempt to keep foremost in its concerns the goal that switching to environmentally preferable products and services results in no diminishment in quality and no increase in cost burden that is not offset by ultimate savings.

RESOURCES

For further information about the program for Environmentally Preferable Purchasing at the Operational Services Division, see:

<http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/>

By phone: Julia Wolfe (617 502 8836)

For assistance with green cleaning implementation, please contact the Cleaning Laboratory of the Toxics Use Reduction Institute at the University of Massachusetts at Lowell:

<http://www.turi.org/Our Work/Cleaning Laboratory/TURI Cleaning Laboratory>

<http://www.turi.org/Our Work/Cleaning Laboratory/How We Can Help>

By phone: Heidi Wilcox (978 934 3249) or Jason Marshall (978 934 3133)

For further information about this report, or with green cleaning implementation, relevant requirements, or other sustainability practices, please contact the Massachusetts Office of Technical Assistance:

<http://www.mass.gov/eea/grants-and-tech-assistance/guidance-technical-assistance/agencies-and-divisions/ota/>

By phone: Rick Reibstein (617 626 1062) or Richard Bizzozero (617 626 1080)