



Fiscal Year 2011 Annual Report of the Environmental Purchasing Toxics Reduction Task Force

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Prepared for:

Environmental Purchasing Advisory Committee (Executive Order #515)

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Introduction

This report examines the progress made by the Massachusetts' Toxics Reduction Task Force to implement a process for minimizing the use of toxics substances wherever possible within the operations of the Commonwealth's Executive State Agencies, as directed in Executive Order 515. It represents the second formal progress update from this interagency collaborative effort.

Building upon the successes achieved by the group in the first year following the issuance Executive Order in 2009, this progress report will continue to focus on the efforts of the Task Force to target the state agencies with the greatest volume of purchases in the area of janitorial cleaning products, as directed by the terms of the Executive Order. It will detail the processes followed in communicating with the targeted agencies, the challenges common to most agency situations, the successes achieved to date, and a summary of the strategies that make up the next steps moving forward with year three of the implementation of Executive Order 515.

Background

Seventeen years ago, with funding from the U.S. Environmental Protection Agency, the state's environmental purchasing effort was launched as a cooperative project of the purchasing agency (now OSD, the Operational Services Division) and the Office of Technical Assistance (OTA). 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.

In 2009, Governor Patrick issued Executive Order #515 (EO 515), requiring all Commonwealth Executive Departments to procure Environmentally Preferable Products (EPPs) and services *whenever such products and services are readily available, perform satisfactorily, and represent the best value to the Commonwealth*. The Executive Order was deemed warranted because so many EPPs have demonstrated both cost-effectiveness and excellent performance, and using them will reduce environmental and public health impacts without loss of quality or convenience.

To facilitate implementation of the executive order, an interagency "Toxics Reduction Task Force" was established, overseen by OTA and run in coordination with the Operational Services Division. Members of the committee currently include staff from the OSD, OTA, the Department of Environmental Protection, the Department of Public Health, the Division of Labor Standards, and the Toxics Use Reduction Institute.

In FY10 OSD and OTA developed and distributed factsheets summarizing the requirements of Executive Order #515 and the Toxics Reduction Task Force and its role in supporting the expansion of the EPP Program, to educate state agencies on their expanded responsibility.¹ Former State Purchasing Agent Ellen Bickelman sent Policy #10-26 (see Appendix) to all Cabinet Secretaries, Executive Department Heads, Chief Fiscal Officers, General Counsels and Procurement Liaisons on E.O. 515, noting the necessity for each agency to designate a liaison (EPP Liaison) to work with OSD on implementation and describing the Task Force as a resource to assist them in accomplishing the order's goals. OTA offered its assistance to the green purchasing liaisons

through the Leading by Example program. The document also provided state agencies with language relevant to the Executive Order that is required to be included in all departmental contracts. OSD organized a workshop on green janitorial cleaning for state and local purchasing and facility staff.

The Task Force selected janitorial cleaning products as a priority area in which to launch the effort (as it was indicated as such in the E.O.), and created an overall strategy and action plan for implementing the efforts, which included:

1. Identifying which agencies are purchasing cleaning products in the greatest dollar volume,
2. Providing education and assistance to those state agencies in understanding the value of purchasing and using EPPs, and
3. Creating a process for evaluating EPPs and using them when they are the best value, considering cost, effectiveness and other aspects essential to service delivery.

The Task Force's work in FY10, and continuing in FY11, has focused on the first action: identifying those agencies that are purchasing the greatest volume of cleaning products and how the Task Force can assist them in greening those purchases.

Targeting the Top Six High Volume Agencies

As the Task Force compared the purchases for cleaning products, equipment and related supplies from various sources (see details below), it was decided that the process of assisting departments in reducing their use of toxic substances may be more manageable if the group focused their efforts on those state agencies that purchase and use the highest volume of cleaning products. As a result, the Task Force identified the following agencies to target:

- Department of Corrections (DOC)
- Division of Youth Services (DYS)
- Department of Mental Health (DMH)
- Department of Public Health (DPH)
- Chelsea Soldier's Home (CHE)
- Holyoke Soldier's Home (HLY)
- Department of Conservation and Recreation (DCR)

While DCR is not actually one of the highest volume agencies in the group, they were included because of the many locations at which cleaning occurs, and the variety of unique cleaning applications that occur within this agency's operations. Several of the DCR staff also attended some workshops conducted by the EPP Program and expressed an interest in transitioning to greener cleaning products.

Based on this established list, each member of the Task Force took the responsibility to be the lead contact person for a particular agency. Moving forward the Task Force members plan to meet periodically to compare challenges and successes of their respective agencies and work with them to engage the appropriate staff in addressing the directives of the Executive Order.

Analyzing the Available Data to Identify Agency EPP Performance

During FY2011, after analyzing available purchasing data of the agencies with the largest amounts of purchases of janitorial cleaners, the Task Force concluded that existing data was not sufficient to form a reliable picture of actual practice. The data from MMARS (the Massachusetts Management and Accounting Reporting System), which tracks all purchases of state agencies, does not differentiate cleaning chemicals from equipment and other supplies; and reports from statewide vendor contracts – both those qualified as EPP and those selling conventional products – can be of variable quality. Agencies also conduct some incidental purchasing on their own contracts and often do not use vendors with state-wide contracts.

With the assistance of an intern provided by OTA to OSD, the Task Force totaled purchases classed as cleaning chemical or cleaning equipment recorded in MMARS, from the seven agencies examined, which came to \$518,939. When compared to the \$320,407 in purchases recorded through contract vendor reports, \$198,531 remain unaccounted for, or approximately one-third of total purchases. It is possible that this balance may be the result of state agency independent (incidental) purchases, but most likely there are also segments of data that remain unidentified.

Using the data obtained thus far, the Task Force compared the total amount of cleaning chemicals and equipment bought from all statewide contracts with the total amount bought under FAC59 - \$186,927. While these numbers may not capture 100% of all spend in this area, the overall trend indicates that an estimated 58% of all cleaning purchases from statewide vendors qualify as EPPs.

The intern then examined all purchases and identified those that appeared to be cleaning chemicals, calculating that they accounted for only one-fifth of the total cost of cleaning purchases, \$66,295.28. A purchasing profile for each of the seven agencies was constructed that compared their total cleaning chemical purchases to purchases of cleaning chemicals from FAC59 (EPP cleaners). The data showed considerable variability in EPP purchasing. Two agencies had EPP purchasing rates of about a quarter of all purchases, the EPP rates of two agencies were in the high 80's, half of all cleaners at one agency were EPP, and there was insufficient data for two agencies, but indications that one of them might be purchasing all their cleaners from the EPP-qualified vendors. (See data in Appendix).

The significant time spent in sorting cleaners from cleaning equipment led OSD to request the comptroller to establish a new sub-object code for “janitorial cleaners” to be used in recording purchases in MMARS, which was created in the summer of 2011. OSD and the Task Force will include information about the new object code in outreach to agency purchasing staff so that in the future it will be easier to track trends in cleaning chemical purchases.

The members of the Task Force then contacted the EPP Liaison for each agency and shared with them the data for their agency, asking the following questions:

- Is the information in the profile correct?
- Are there other purchases of cleaners not recorded under the vendor reports? (Such as the agency contracts for incidental purchases).
- Are staff informed of the EPP EO and if not, what information do they need?
- When cleaners that are purchased from sources other than FAC59, is there a process in place for evaluating whether FAC59 cleaners can be substituted?

Some of responses highlighted the following issues:

- State agencies located in private rental buildings may not have responsibility for cleaning the building, and do not select the products used.
- The contract vendor “end of fiscal year” reports were of variable quality and information needed to be verified.
- Some agencies stated that although the products they bought were not from vendors qualified under FAC59, that they thought they were buying green products. Vendors not on FAC59 were marketing cleaning chemicals as “green”. (The state only recognizes as green products that have been listed under a contract that has been approved as such by the EPP program²).
- Some purchasing of cleaners is decentralized, and EPP Liaison had difficulties obtaining the necessary information concerning purchases made by branch offices or field facilities, and not from statewide vendors.

Results of Agency Contacts

In the process of reaching out to the targeted group of seven state agencies sighted above, the task Force discovered that certain agencies had already implemented initial steps in transitioning to greener cleaning products and were having some interesting success. Two of the more proactive agencies are featured in this report and the progress of others will follow over the course of the upcoming year.

Department of Corrections.

The data indicated that of all the cleaning products the Department of Corrections is purchasing throughout its various locations, 88% of those products appear to be EPPs. This was the highest rate found among all of the top agencies targeted. Examination of the cleaners represented in the 12% revealed that most of these were specialized cleaners for which FAC59 did not provide available substitutes. However, the DOC is a very large agency, and the Task Force considered that these total purchase amounts could not be large enough to reflect all the cleaners used. OSD informed the Task Force that DOC was making its own cleaners out of raw materials, and thus they were not purchased as cleaners, but as base chemical ingredients. In addition, DOC performs some sales to other agencies of the cleaners they make.

Upon following up with DOC, the Task Force was informed that DOC’s self-manufactured cleaners are environmentally preferable. However, the liaison was not able to explain how this determination was made. The Task Force then visited DOC facilities, toured the production site, met with production supervisors, and clarified what information was necessary for the Task Force to verify that the products are environmentally preferable.

DOC submitted a comprehensive report that included the ingredients and certifications for a range of products, including an all-purpose cleaner, a floor cleaner, a bathroom cleaner, body wash, and

² Currently, these are products that are certified by the independent organizations Green Seal or Ecologo, and some additional products that have undergone OSD EPP program review.

glass cleaner. The TURI laboratory confirmed that three products used as ingredients by DOC to make up their cleaners were indeed certified as green by Green Seal (and thus accepted by the Commonwealth as qualifying as EPP). Other products contained fragrance or other constituents that DOC added, which may disqualify DOC from retaining the Green Seal approval. In general, products seemed to be substantially greener than the cleaners they replaced. DOC reported they have eliminated cleaners with many toxic (to human health or the ecosystem) ingredients, including:

- Monoisopropanolamine, which can cause irritation, in glass cleaner and floor stripper
- Trisodium Phosphate, which has ecological impacts, in floor cleaner
- Formaldehyde, a carcinogen and asthmagen, in body wash and floor finish
- Dimethyl Ethylbenzyl Ammonium Chlorides, asthmagenic, and toxic to fish, in bathroom cleaner.

The Task Force learned about other changes in chemical procurement that DOC has made in recent years that also represent significant steps in toxics reduction. Its Correctional Industries division produces (among other things) 1.5 million license plates per year. In 2006, Correctional Industries switched from a coating method that required gas oven drying to a hot stamp foil process, vastly reducing energy use, but also eliminating 480 gallons of flammable and toxic paint thinner, 384 gallons of inks, and 6,000 pounds of flammable rags containing hazardous wipe residues.

Chelsea Soldier's Home.

The review of purchasing data from the Chelsea Soldier's Home did not at first indicate any EPP purchases at all. Contact with the purchasing staff of the Soldier's Home by the Task Force revealed a very different picture, however. The reasons for the discrepancy between the purchasing data and actual practice have not been fully determined. After contacting the Home the Task Force learned that the Soldier's Home:

- Now uses microfiber technology, which increases the lifetime of a mop from 20 to 400 uses and that Floor cleaners, wax and strippers are now purchased from a vendor approved as an EPP provider.
- Switched from conventional glass cleaners and all-purpose cleaners to versions certified by Green Seal.
- Uses Green Seal certified bathroom cleaners and handsoaps, and hand sanitizers certified by Ecologo; both third party certifications are recognized as EPP by the Commonwealth.

- Is in the process of switching to laundry services that use U.S. EPA Design for the Environment products. (DfE label products do not yet qualify for EPP, but are considered greener than many other products³).
- Is transforming pest control methods to include integrated pest management (IPM), which prefers nonchemical measures, reducing pesticide use by about 80%.
- Has introduced some food service cleaners that are Green Seal certified, and they are planning trials of the remaining detergents.
- Has implemented a program to recycle books, paper, and trash bags and they are now buying EPP paper towels and toilet paper.

Upcoming Agenda Moving Forward

While the Task Force members plan to actively continue their discussions with the individual targeted state agencies noted in this report, the group also realizes that key to any significant future success is the improvement of certain processes currently in place. The three processes on which the Task Force agreed to direct their attention in the upcoming year include the following:

- Increasing the utilization of statewide contract FAC59, Green Cleaning Products, Programs, Equipment and Supplies;
- Developing a more accurate system of tracking and recording agency purchases of green cleaning products and other EPPs;
- Expanding upon the opportunities currently employed to educate state agencies on the benefits of using EPPs; and
- Focusing on the apparent overuse of toxic disinfectants and sanitizers within the cleaning operations of many facilities.

1. Increasing the Utilization Of Statewide Contract FAC59, Green Cleaning Products, Programs, Equipment and Supplies

It was clear from the data analysis that several other contracts are in place within the Commonwealth from which state agencies are able to purchase cleaning products – many of which are not environmentally preferable. Therefore, OSD’s first step in addressing this goal of the Task Force is to identify those competing contracts and work toward eliminating the availability of cleaning products that do not meet the specifications established under FAC59. Many of these contracts have been identified and the EPP Program is working with the various Strategic Sourcing contract teams to consolidate or rebid some of these contracts depending on the situation, to more clearly focus the purchase of cleaning products to FAC59.

As of August 2011, the EPP Program has also required all of the vendors awarded under FAC59 to provide a Marketing Plan for the FY2012 term that sets goals for gaining new customers and increasing their sales under the contract. More information will be available to the Task Force

³ According to EPA staff, the Design for the Environment program is currently improving its certification in order to compare well with Green Seal and Ecologo, the two labels recognized by the Commonwealth’s EPP program.

on this initiative as the quarterly updates on these marketing Plans are provided by the vendors to OSD.

2. Developing a System to More Accurately Track Environmental Purchases

In FY12, the Toxics Reduction Task Force will continue work on developing an accurate system for tracking the purchases of green cleaning products and other EPPs, so that progress can be better measured and more clearly presented. Current methods are work-intensive and the successful completion of an annual report is contingent on the availability of resources (such as interns to organize the data collected). Agency training and accurate data entry should reduce the work load and improve data quality. Focus will be on using the new MMARS sub-object code, ensuring consistent definitions, and ensuring widespread understanding of the Governor's EPP Executive Order. It will also be necessary to develop ways of fostering improved agency awareness and working to discourage the practice of making purchases that are not from statewide vendors.

OSD's EPP Program has already started the process of developing a standardized reporting template for the submission of vendor sales reports from statewide contracts. Beginning in FY12, OSD is also now requiring that such reports be submitted quarterly, in lieu of annually. This more frequent reporting schedule, coupled with the improved reporting template should serve to render more accurate data within a timeframe that can be more easily tracked, analyzed and utilized to initiate improvements.

3. Expanding Outreach and Education Efforts

Although some agencies have made impressive progress in transitioning to greener cleaning products, there is a general lack of clarity among many agencies concerning what the Executive Order specifically requires. It was not unusual for people to comment that the team needed to understand that the non-EPP materials that were being used are materials that must be used to accomplish the mandated purpose. However, the Executive Order allows for the use of materials that are the "best value", and does not require that EPP products be used when they are not best for the job. Most importantly, the Task Force has not yet found a systematic process in place that:

- a) Ensures all staff prioritize the purchase of green cleaning chemicals and other EPPs;
- b) Tracks and evaluates whether the EPP products perform as well as more toxic conventional cleaners for various cleaning applications; and
- c) Ensures that when EPP products are the best value, they are purchased instead of products that may pose greater risks to users or the environment.

As a result, the Task Force determined that additional education and training on the benefits of purchasing EPPs is needed for both state agencies and vendors in order to facilitate greener purchasing practices. In response to this goal, OSD's EPP Program is working with the Massachusetts Facility Managers Association to consider a continuation of the workshops presented last year for state agencies on how to use the FAC59, Green Cleaning, Products and

Programs statewide contract. The EPP Program is also working with OSD's Marketing and training division to develop a webinar that can be accessed by state agencies as well as municipalities, schools and others interested in purchasing green cleaning products. In addition, the program will be conducting at least one workshop at OSD's May MASSbuys (trade show/conference) event to showcase some of the success stories for those state agencies that have transitioned to green cleaning and are now saving money as well as realizing health benefits.

In FY12, the Task Force will also consider other strategies to better communicate to the agencies concerning implementation of the EPP Executive Order. Such strategies may include:

- Communicating expectations to staff.
- Identifying methods of comparing EPPs to non-EPPs and weighing characteristics such as product performance, effectiveness, ease of use, risks, and costs.
- Instituting a method of reporting justifications for the continued use of non-EPPs, when they represent the "best value" in the context in which they are used.
- Methods to improve intra-agency and interagency communications on these issues.

4. Addressing the Overuse of Disinfectants

In the course of investigating cleaners the Task Force found indications that disinfectants may be overused in some settings. Several reports were received of disinfectants used as cleaners, a purpose for which disinfectants are not suited. Their purpose is to ensure that infectious agents are reduced, destroyed or inactivated, after cleaners have removed soils. In addition, reports were received of disinfectants used in places that do not typically require disinfection, such as on floors and windows. Disinfectants are intended for use in disrupting the transmission of microbes, such as in healthcare, food preparation, diapering, or in the event of a blood spill. Because disinfectants are pesticides that are purposely toxic to organisms, and are not always limited in their effect to the target organism, it is important not to overuse disinfectants. Using disinfectants too broadly may also lead to underuse or improper use where they are needed.

However, in order to design appropriate training on the proper use of disinfectants, it is necessary to have the counsel and advice of recognized experts. The Task Force recognizes that the implementation of the Executive Order 515 must result in the more effective reduction in the transmission of disease. Therefore, the Task Force will identify and seek out appropriate medical and public health expertise to assist it in devising communications and training to enhance the likelihood that disinfectants will be appropriately used. In addition, because neither Ecologo nor Green Seal have certifications for disinfectants, OSD and the Toxics Reduction Task Force will continue to work toward identifying updated criteria that best defines a "greener disinfectant" and incorporate that into the Commonwealth's current standards.

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