Lowell Center for Sustainable Production
UNIVERSITY OF MASSACHUSETTS LOWELL

Alternatives Assessment 109 Webinar:

Advancing Informed Substitution and Safer Chemistry In Government Procurement

JANUARY 11, 2013

FACILITATED BY: JOEL TICKNER, SCD

JOEL_TICKNER@UML.EDU
LOWELL CENTER FOR SUSTAINABLE PRODUCTION,
UMASS LOWELL

** If you would like to ask a question or comment during this webinar please type your question in the Q&A box located in the control panel.*

Goals

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- Continuing education and dialog
- *"To advance the practice of alternatives assessment for informed substitution across federal, state, and local agencies through networking, sharing of experiences, development of common approaches, tools, datasets and frameworks, and creation of a community of practice."*

Purpose of this call

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•Governments are large institutional purchasers and have a potentially great influence in marketplace for more sustainable products.

•Federal and state policies are increasingly requiring government agencies to purchase more climate friendly, recyclable and, in some cases, less toxic products.

•Procurement officers face a number of challenges that inhibit their ability to broadly advocate for safer chemicals, including limited criteria for safer chemicals, challenges in reviewing toxicological data, and competing considerations in purchasing.

•This webinar provides an overview of specific state and federal initiatives to integrate informed chemical substitution into purchasing decisions, lessons learned, and opportunities for more effective collaboration in the future.

Speakers

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- Dana Arnold, General Services Administration
- Edward H. Rau, Environmental Protection Division, ORF DHHS-National Institutes of Health
- Elizabeth Meer, New York Department of Environmental Conservation

Discussion Questions

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- What are the key lessons from your initiatives to inform safer chemicals procurement in the future.
- What are key challenges to more effective integration of toxics reduction and substitution in procurement decisions? Are there good models from the private or public sector that could be adopted?
- Are there trade-offs between competing sustainability criteria that have arisen?
- How can procurement officers collaborate more effectively with agency experts in toxicity and safer chemistry?
- In identifying chemicals of concern, is the focus primarily on "building occupants" or also workers using those chemcials?

Webinar Discussion Instructions

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- Due to the number of participants on the Webinar, all lines will be muted.
- If you wish to ask a question, please type your question in the Q&A box located in the drop down control panel at the top of the screen.
- All questions will be answered at the end of the presentations.

U.S. General Services Administration

Federal Acquisition Service

Sustainability, Executive Orders, and Chemicals Management

Dana Arnold
General Services Administration

January 11, 2013

"Sustainable"

To create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations of Americans.

Executive Order 13423 Goal for Chemicals

- **Reduce the quantity of toxic and hazardous chemicals and materials purchased, used, and disposed**

Executive Order 13514 P2 Goal

Ensure that the agency (i) reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of by the agency

(ii) increases diversion of solid waste as appropriate

(iii) maintains cost-effective waste prevention and recycling programs in its facilities

Trends in Agency Reduction Plans

- **Key trend: Manage chemicals through EMSs**
- **Key trend: Address elimination of ozone depleting substances**
- **Identify chemicals or products to be addressed either agency-wide or specific to a sub-agency, bureau, or operating division**
  - **Often cited chemicals: mercury, PCBs, CFCs, lead**
  - **EPA Priority Chemicals List**
  - **Janitorial cleaning chemicals**
- **Develop reduction policies for identified chemicals**
  - **P2OAs**
  - **Audits**

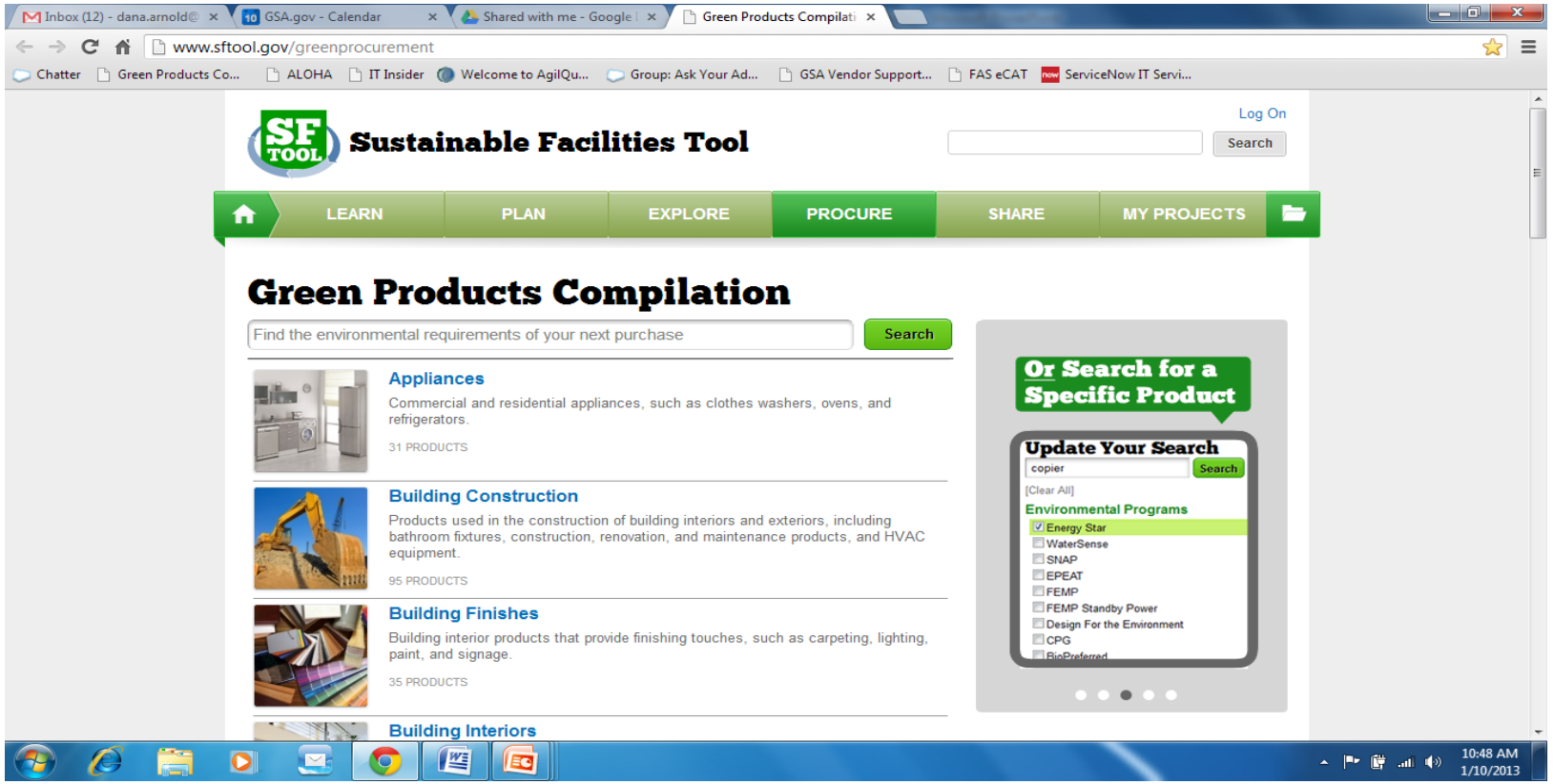
Trends in Agency Reduction Plans

- **Use of HAZMAT pharmacies**
  - **DHS intends to implement department-wide**
  - **EPA (laboratories) and others use automated inventory systems**
- **DoD, EPA, and USPS are the few agencies to address acquisition specifically**
- **Information sharing within departments and agencies**
- **Recycling, such as lead-acid battery recycling, to eliminate hazardous waste disposal**

Examples

- Laboratory chemicals
- Mercury-containing devices
- PCB-containing equipment
- Cleaning products
- Integrated pest management
- Process or equipment changes, such as aqueous parts washers for solvent-based parts washers

Green Products Compilation



For More Information

FEDCENTER: www.fedcenter.gov

www.sftool.gov/greenprocurement

Dana Arnold

dana.arnold@gsa.gov

Office of Research Facilities

Innovations for Sustainable Acquisition:

- Overview of Tools Under Development

Edward H. Rau

Chair, DHHS Sustainability Innovations Working Group

Division of Environmental Protection, ORF

National Institutes of Health

U.S. Department of Health & Human Services

Two Tools for Disruptive Innovation

THIS WEBINAR

- Tool for reducing procurement of products *and services* containing or emitting toxic or environmentally damaging chemicals – *Substances of Concern*
- To be incorporated into the new SA purchasing tools

CONCURRENT PROJECT

- Fully automated, transaction-based SA purchasing tools
- "One Stop Shopping" - contracts to credit card micropurchases with all SA criteria embedded
- *First tools have now been released*

Webinar Slides

Adapted from NIH Presentations

White House GreenGov Symposium

September 24-26, 2012

Session 6 - Greening the Supply Chain

Building REAL TOOLS for Sustainable Acquisition (SA)

Building Tools for Reducing Substances of Concern

Edward H. Rau
Chair, HHS Sustainability Innovation Working Group
DHHS – National Institutes of Health

Toxicity Reduction Tools - Needs

- Clearly, reducing the purchasing, use and disposal of products that contain or emit toxic, hazardous or polluting chemicals defined here as *Substances of Concern (SOCs)* will bring great health and environmental benefits.
- Yet development and implementation of procurement controls to reduce hazards posed by chemicals in products and services has lagged far behind other sustainability attributes such as those relating to energy efficiency and recycled material content.
- Even at the National Institutes of Health we had no process in place to apply the knowledge gained from our vast health and toxicology research programs to our own procurement systems, billions of dollars in direct purchases and grant funding, and to guide the larger health care sector.

Reduction Mandates

- Existing statutes (PPA, RCRA etc.) provided only general directives; E.O. 13514 is more specific.
- Federal Acquisition Regulation (FAR) Interim Rule (May 31, 2011) implemented the E.O. in procurement requiring:
  - Agencies to purchase non-toxic or less toxic products
  - Reduction of greenhouse gases in the supply chain
  - Contractor compliance with agency Environmental Management Systems, which often focus on hazardous substances and pollutants.
- 45 CFR 74.44 – Federal grantees are now required to purchase products and services that "protect the environment".

Challenges: Definitions and Data

- Definitions: the FAR doesn't define the terms *"toxicity", "less toxic", "non-toxic" or "alternatives".*
- Data for objective comparison and selection of products and services is usually not available:
  - MSDSs: not applicable to most articles or services; list toxicity by ingredients, not of the formulation or as used; proprietary data may be withheld; wide concentration ranges shown etc.
  - FAR now exempts contractors from reporting TRI chemicals
  - No life cycle data on toxic emissions: in manufacturing, transportation, specific uses and at end of product life
  - Data management issues: access, standardization, verification

Challenges: IF data is available

- What is the precedence of hazards in comparing products…
  - Posing different types of toxic risk: acute (e.g., asthmagens) versus chronic (e.g., carcinogens)?
  - In relation to other chemical hazards e.g., flammability, corrosivity?
  - Importance of emissions in supply chain vs. point of use vs. disposal?
- Priority of toxicity reduction versus other sustainability attributes: environmental, economic, product effectiveness?
- How to evaluate and compare SOCs in outsourced services?
- Vast array of products purchased; complexity and resources required for objective, comparative risk assessments

An Interim List Based Approach

- Until better life cycle data and methods of comparative toxicology are available our strategy will be to develop lists of SoCs and general guidance on reduction methods.
- Later – use specific restrictions on products containing them.
- This is the most feasible approach for rapid deployment:
  - Initial listings may be largely based on other established lists and actual human exposure data from biomonitoring studies
  - They can serve a checklist for use in specifications: an agency's EMS can require suppliers to disclose listed SOCs in products, as used in services and released in emissions.
  - Avoids the need to conduct complex, resource-intensive risk assessments on myriad products and services to be purchased.

Three SOC Listing Criteria

1. **Must have Significant Use in NIH Facilities (e.g., Building Materials) or Mission Activities**

2. **Poses Excessive Hazard or Risk to:**

   - Health, Safety or Security
   - Environment
   - Research Mission
   - Regulatory Compliance
   - Meeting other Sustainability Goals, e.g. preventing resource depletion, promoting environmental justice

3. **Suitable, Use-Specific Alternatives Must be Available**

First Tools - NIH's Interim List

- Objectives:
  - Improve both purchaser and supplier awareness of the *Substances of Concern*, products that contain them, where they are used and requirements to purchase less hazardous products.
  - Provide general guidance on availability of alternatives and other reduction methods for these substances.
  - Serve as checklist of chemicals for which disclosure may be required.
  - Post specific restrictions issued by our EMS and regulatory agencies.
- First Interim List: The proposed October 2012 issuance will include about 200 specific substances arranged in 50 groups according to their function or type of chemical.

Short Term Action Plan

- Establish formal EMS processes to list substances and issue specific restrictions where alternatives to products and services containing/emitting SOCs are available.
- Begin to integrate and activate SOC monitoring and controls in our Purchasing Online Tracking System (POTS):
  - Adding keywords for screening products (chemical names, uses, CAS#)
  - Begin tracking all purchases of chemicals listed as SOCs
  - Prohibit purchase of restricted products such as mercury thermometers
- In collaboration with GSA, EPA and others add product categories, designated products and alternatives to GSA's Green Product Compilation for government-wide access.

Long Term Plan: Complete Tools

The next steps in building more robust, complete tools will require large efforts and extensive interagency and private sector collaboration to:

- Clarify regulations and priority of SOC reduction in the multi-attribute framework of Sustainable Acquisition.
- Foster translational research to develop protocols for comparative toxicology and apply them to selection of healthier, more sustainable products and services.
- Develop an interagency database of products, services and sustainability attributes (including but not limited to SOC content) to support automated acquisition tools – a massive, complex undertaking.
- **Put Federal procurement on Detox!**

Status Update (January 2013)

- SoC Reduction Initiative is now in place and on the NIH Environmental Management System website: www.nems.nih.gov
- Interim data set includes about 50 groups of chemicals, 350 used based substance listings.
- Data set will be reconfigured and optimized for searching and integration with purchasing tools (pending funding)
- Working with GSA's Sustainability in Procurement fellows on projects to add first substance related product designations to Green Products Compilation (GPC). Available at: http://www.sftool.gov/greenprocurement

Workshop Reference

A workshop titled: ***Sustainable Acquisition: Fostering Sustainability Considerations into Public and Private Sector Procurement Tools and Capabilities*** was held December 7-8, 2011 at the National Academies

For more information, workshop reports and presentations on Sustainable Acquisition Tools visit this National Academies website:

http://sites.nationalacademies.org/PGA/sustainability/GreenProcurementWorkshop/index.htm

Contacts and Collaboration Welcome

Contact Information

Edward H. Rau, MS, RS, RHSP

CAPT. USPHS, Ret.

Special Assistant to the Director

Division of Environmental Protection, ORF, OM

DHHS- National Institutes of Health

(301) 631-7257 (Direct)

(301) 526-9437 (Cell)

E-mail:

Ed.Rau@nih.gov

Opportunities for Collaboration

Visit the new Sustainable Supply Chain Community of Practice Website on Data.gov--

Bringing together government, industry, associations, non-profits and academic institutions to achieve more sustainable supply chains.

And be a champion!

Website:
http://www.data.gov/supplychain/community/supplychain

GREEN CHEMISTRY

in New York State Procurement

Beth Meer

By the Numbers

- 16,000 facilities
- 17,000 vehicles
- 815,000 tons of waste
- Utility bill $600 M
- Approximately $8 B in purchases

NYS Green Chemistry in Purchasing Policies

- NYS Green Cleaning Law
  enacted 2005; effective 2006
- EO 4, Green Procurement and Agency Sustainability,
  signed 2008, cont. 2011
- Policy statement adopted 2010
  on the Consideration of Chemicals in the Development of Green Specifications

EO 4 Criteria for *Green Purchasing*

- Protect public health and the environment, esp. children
- Reduce waste; use durable, reused, or reman content
- Recycle and compost; make content easy to reuse, reman, recycle or compost; use recycled content
- Reduce toxic chemical use; prevent pollution
- Reduce greenhouse gases; use renewable energy
- Manage resources sustainably; conserve water
- Minimize adverse impacts throughout life cycle; support product stewardship
- Minimize volume and toxicity of packaging

How Criteria are Used in Purchasing

- Green Specifications:
  - Requirements & encouragements for all purchases by agencies, including general contracts, competitive contracts & discretionary
- Green General Contracts & Aggregate Buys
  - Some are entirely green
- Green Product and Service Offerings
  - Many existing contracts contain green products

EO 4 Green Specifications

- 28 green specifications covering 63 products adopted
  - Computers, cleaners, recycling services, single use food containers and utensils, printing and ink, lamps
- 7 tentatively approved
  - Composting toilets, carpet, hand dryers
- 19 under development
  - Mulch, furniture, high end paper, product stewardship, reusable bags, sustainable landscaping, toner, road aggregate, food

Low- and Non- Toxic Specifications

- Adopted
  - Paper
  - Computers
  - Cleaning products
  - Pest management indoor
  - Turf and ornamentals
  - Lubricating oil
  - Ink
- In Development
  - Carpet
  - Furniture

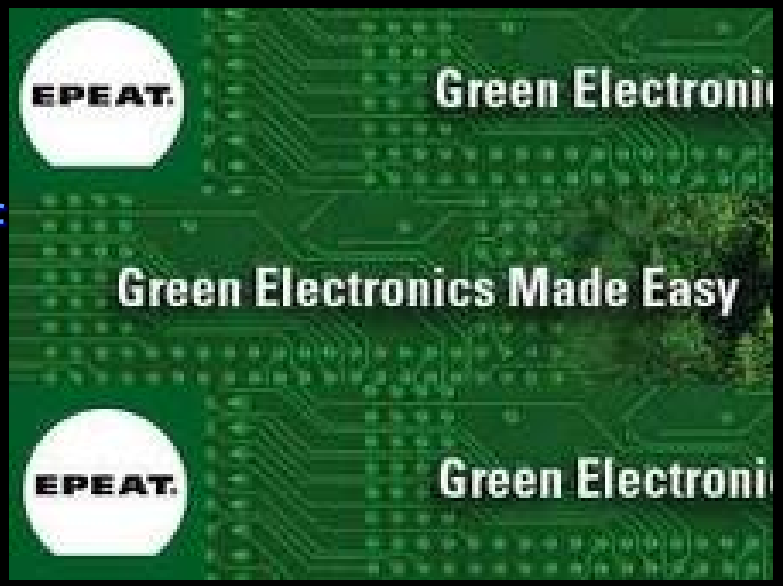
100% recycled, PCF Paper

- Statewide contracts for paper issued Summer 2008:
  - 100% recycled, processed chlorine free
  - Copy and janitorial

- FY 08-09
  - 22% of copy paper, 34% of janitorial paper = $4.5 M
- FY 09-10
  - 49% of copy paper, 75% of janitorial paper = $13.4 M
- Significantly fewer complaints

Green Computer Aggregate Buy

- FY 08-09 met highest environmental standard in the country (EPEAT Gold +7)
- Savings have steadily increased each year: $130 million saved off contract price FY 08-09
- Will save $16 million in energy use over life of computers
- Avoided 5 million lbs of solid waste
- Reduced toxic chemical use by 30,852 lbs



Green Cleaning Law: Background

- Enacted 2005; effective September 2006
- All public & private, primary & secondary schools must purchase and use green cleaning products

Green Cleaning Success Story

In 2011, Carl Thurnau, Director of Facilities, NYSED reports successful adoption of green cleaning products and practices:

- At first, many complaints re cost and efficacy
- Now, no complaints from schools
- No complaints from parents
- Widespread use of green cleaning products and practices - Public schools in substantial compliance with law

Green Cleaning Success Story

Based on 3 years of experience, survey by SED and OGS in 2010 found:

- Green cleaning products do not cost more than traditional cleaning products.
- Green cleaning products cost the same or less, and they work as effectively, as their traditional counterparts.

2009-10 EO 4 Report:

- 83% of agencies use green cleaning products all or most of the time

Green Cleaning Contract

- OGS green cleaning website lists 1700 products that meet the requirements of NYS law and EO 4.
- Multi-state contract issued in May 2010 (led by MA) has 18 contractors (9 operative in NYS) and more than 200 products.
- Available for use by agencies, school districts and municipalities.

Pest Management by New York State Agencies

- 70% Use IPM all or most of the time for indoor pest control
- 43% Use Non-Chemical Pest Control for turf and ornamentals all or most of the time

Green Product Costs in General

In general, green products are competitively priced and perform well:

- Cheaper: traffic safety equip, glass beads, toner s
- Same: janitorial paper, computers, cleaning products, ink
- Good payback: vehicles, appliances
- Somewhat volatile: copy paper, oil (within 10%)

EO 4 Policy Statement on Chemicals

Interagency Committee will consider chemicals that pose potential health and environmental impacts, including chemicals identified in:

- EPA Haz Waste Min List (PBTs, Heavy metals, some pesticides)
- National Toxicology Program, known and reasonably anticipated carcinogens
- Chemicals for which a Chemical Action Plan has been issued under TSCA (eg. chems of emerging concern, like endocrine disruptors, BPA)

EO 4 Policy Statement on Chemicals

- Use it to screen and develop specs for the future
- We do not perform alternatives assessments ourselves
- Look for existing standards
- Need 1/3 market to require
- Drive market through encouragements

Challenges

- Spec development product by product
- Driving market to ensure low cost
- Getting green specs into contracts
- Making choice of green product less confusing, more automatic
- FY 09-10 agency reports show high participation and low costs, but lingering concerns regarding:
  - The time needed to test, monitor and select products
  - Eg. finding green floor finishes and strippers for high traffic areas
  - Ongoing confusion about disinfectants

Solutions

- Share alternatives assessments among states
- Continue to build robust models for standard development; allow more flexibility on certification?
- As products and practices become more widespread , comfort levels should increase
- Increase issuance of green state contracts
- Adopt models for catalog contracting that screen out ineligible products.

Contact Info

Beth Meer

Special Assistant

New York State Department of Environmental Conservation

625 Broadway

Albany, NY 12233

(518) 402-2796

eemeer@gw.dec.state.ny.us

Discussion Questions

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- What are the key lessons from your initiatives to inform safer chemicals procurement in the future.
- What are key challenges to more effective integration of toxics reduction and substitution in procurement decisions? Are there good models from the private or public sector that could be adopted?
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Next Webinars

Lowell Center for Sustainable Production
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- Alternatives Assessment 110: Collaborations to Advance Safer Alternatives: Examples and Models
  - February 2013, Date/Time TBA
- We welcome input on ideas for additional webinars. Please contact Joel Tickner, joel_tickner@uml.edu with ideas.

Webinar Audio & Slides

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The audio recording and slides shown during this presentation will be available at:

http://www.chemicalspolicy.org/alternativesassessment.webinarseries.php