

Green Building Roundtable:

Reducing Toxicity in Buildings and
Building Materials

October 22, 2010



Roundtable Discussion Framework:

- 8:00 AM** **Welcome and Introductions**
- 8:15 AM** **Buildings and Indoor Air Quality
Toxic Use Reduction Act**
Discussion
- 9:00 AM** **Break**
- 9:15 AM** **IEQ – Buildings and Building Materials
Examples/Shared Experiences**
Discussion
- 9:45 AM** **Resources**
- 9:50 AM** **Upcoming Roundtable topics/ideas?**



Buildings and Indoor Air Quality

- 90% of time spent indoors
- 2x-5x higher than outside levels (some cases 100x)
- Highest exposure – inhalation of indoor air
- Causes health reactions (asthma, allergies) = increase sick days
- “Green” Products and Practices (Manufacturing and Construction):
 - reduced liability, increased worker productivity
 - Rapid payback on capital investments (green premium)



Buildings and Indoor Air Quality

- Specify materials that reduce offgassing (adhesives, paints, carpet, composite wood products, furniture)
- Sequencing of Construction – reduced material exposure/absorption
- Protection/proper mgm't of air handling systems
- Higher ratios of outdoor air, managing moisture, cleaning substances
- Sensor controls (temp., humidity, air exchange rates, CO₂)
- Daylighting, natural ventilation, individual controls =
↳ occupant well-being



Toxic Use Reduction Act

- Toxic chemical reduction = improved health.
- **Toxic Use Reduction Act** - companies that exceed threshold amount report how and why chemicals are used, how much waste and evaluation of possible chemical alternatives
- Requirement to create a Toxic Use Reduction Plan every other year.
- TURI - free resource in searching for equipment and cleaning solutions that help remove harmful chemicals and alternatives to hazardous chemicals.





- State organization helping Mass. companies reduce their use of toxic chemicals with safer and cheaper alternatives.
- Provides grants and assists both large and small businesses, non-profits, cities and towns in finding alternatives.



Tools and Services

- *Technology Health and Environment Library* – green chemistry, pollution prevention and toxics use reduction resources, full-time librarian.
- *Greenlist* – online catalog www.turi.org/greenlist >20,000 reports.
- *Greenlist Bulletin* – weekly e-newsletter highlighting new resources
- *Chemical Fact Sheets* – 18 brochures on high hazard toxic chemicals and safer alternatives (community and industry).
- *Alternative Assessments Reports* - 9 methods for alternatives assessments http://www.turi.org/toxics_use_home/hot_topics/alternatives_assessment/alt_assessment_tools/alternatives_assessment_reports
 - Bio-based cleaners
 - Alternatives to Mercury-containing Products
 - 5 Chemicals Study:
 - Lead
 - Formaldehyde
 - Perchloroethylene (PCE)
 - Hexavalent chromium (anti-corrosive coatings)
 - di(2-ethylhexyl)phthalate (DEHP) (plastics)





Tools and Services

- *P2Gems* – pollution prevention resources www.p2gems.org
- *TURAdata* – online guide for industry and communities about toxics used and toxics use reduction efforts searchable by community, chemical or company www.turi.org/turadata
- Pollution prevention case studies, educational materials, and Technical reports for specific chemicals
- www.turi.org/publications/institute_pub.htm
- TURI and the [Sierra Club](#) – info. on cleaning product safety and safer alternatives.



Toxicity Reduction Resources

Product Stewardship Institute – Sierra E. Fletcher

Director of Policy and Programs
Product Stewardship Institute, Inc.
29 Stanhope St., 3rd Floor
Boston, MA 02116

www.productstewardship.us

NEXUS – Green Building Resource Center

The Green Roundtable / NEXUS – Phoebe Beierle
38 Chauncy St. 7th Floor
Boston, MA 02111

<http://www.nexusboston.org/>

Toxic Use Reduction Institute (TURI)

600 Suffolk Street
Wannalancit Mills
Lowell, MA 01854

<http://www.turi.org/>



Toxicity Reduction Resources

LEED for Subcontractors – November 30 – National Grid

www.usgbcma.org

GreenSpec Directory – BuildingGreen

<http://www.buildinggreen.com/menus/>



Devens Eco-Efficiency Center Resources

www.ecostardevens.com

The screenshot shows the website for the Devens Eco-Efficiency Center. At the top left is the EcoStar logo, a green star with a blue swoosh. To its right is the text "Devens Eco-Efficiency Center" and a subtitle: "Helping businesses and not-for-profit organizations incorporate economic, environmental, and social considerations into their daily operations and activities." On the top right is a Venn diagram with three overlapping circles labeled "Ecology", "Community", and "Economy", with "Sustainability" in the center. Below the header is a navigation bar with buttons for "About EcoStar", "Services", "News", "Resources", and "Contact Us". On the left side, there is a vertical menu with buttons for "Home", "Join", "Event Calendar", "Education", "EN Exchange", "Member Log-in", and "Take a Tour of Devens". The main content area is divided into three columns. The first column features a "New! Power Down = Profit Up" guide, which is a PDF document with a cover image of a power strip. The second column has a "Next Roundtable:" announcement for an "Environmental Health & Safety Roundtable: TEACHING THE ADULT LEARNER" on February 19, 2010, at 33 Andrews Parkway, Devens, MA. The third column is titled "How else can EcoStar help you?" and lists services like "Employee Outreach and Education", "Benchmark Building's Energy Use", and "Professional Facility Energy Audit". At the bottom of the page, there is a footer with text about EcoStar's status as a 501(c)3 non-profit and a logo for the Devens Enterprise Commission.

Devens Eco-Efficiency Center
Helping businesses and not-for-profit organizations incorporate economic, environmental, and social considerations into their daily operations and activities.

Next Roundtable:
Environmental Health & Safety Roundtable:
TEACHING THE ADULT LEARNER
February 19, 2010 8AM-11AM
33 Andrews Parkway, Devens, MA
(Conference Room 1)
Are you responsible for training workers in your organization?
Come learn about and practice key strategies to make sure your important message gets heard.
[GO TO THE ROUNDTABLE PAGE](#)

How else can EcoStar help you?
Want to make your business more environmentally friendly and reduce expenses?
Do you have an idea for a sustainability topic for future workshop training sessions or roundtables?
Do you have a routine waste stream that has reuse potential for another organization?
Contact **Dona Neely**, Director of the Devens Eco-Efficiency Center, to talk about what EcoStar can do for your business in these areas and more. 978-772-8831 x3304

Want to decrease monthly energy bills?
EcoStar offers services that can help!
Employee Outreach and Education
Achieve savings by powering down the office.
Benchmark Building's Energy Use
Establish a baseline to track and measure progress.
Professional Facility Energy Audit
Assess boilers, furnaces, compressors, lighting, more.
Free for Devens businesses, EcoStar members.
[Learn more here](#) or
Contact **Dona Neely** at 978-772-8831 x3304

EcoStar is a program of the Devens Eco-Efficiency Center. The Devens Eco-Efficiency Center is a 501(c)3 non-profit organization, established in 2007. Our Thanks to the Devens Enterprise Commission for their continued support. For more information, contact the Director of Devens Eco-Efficiency **Dona Neely**.

DEVENS
ENTERPRISE COMMISSION